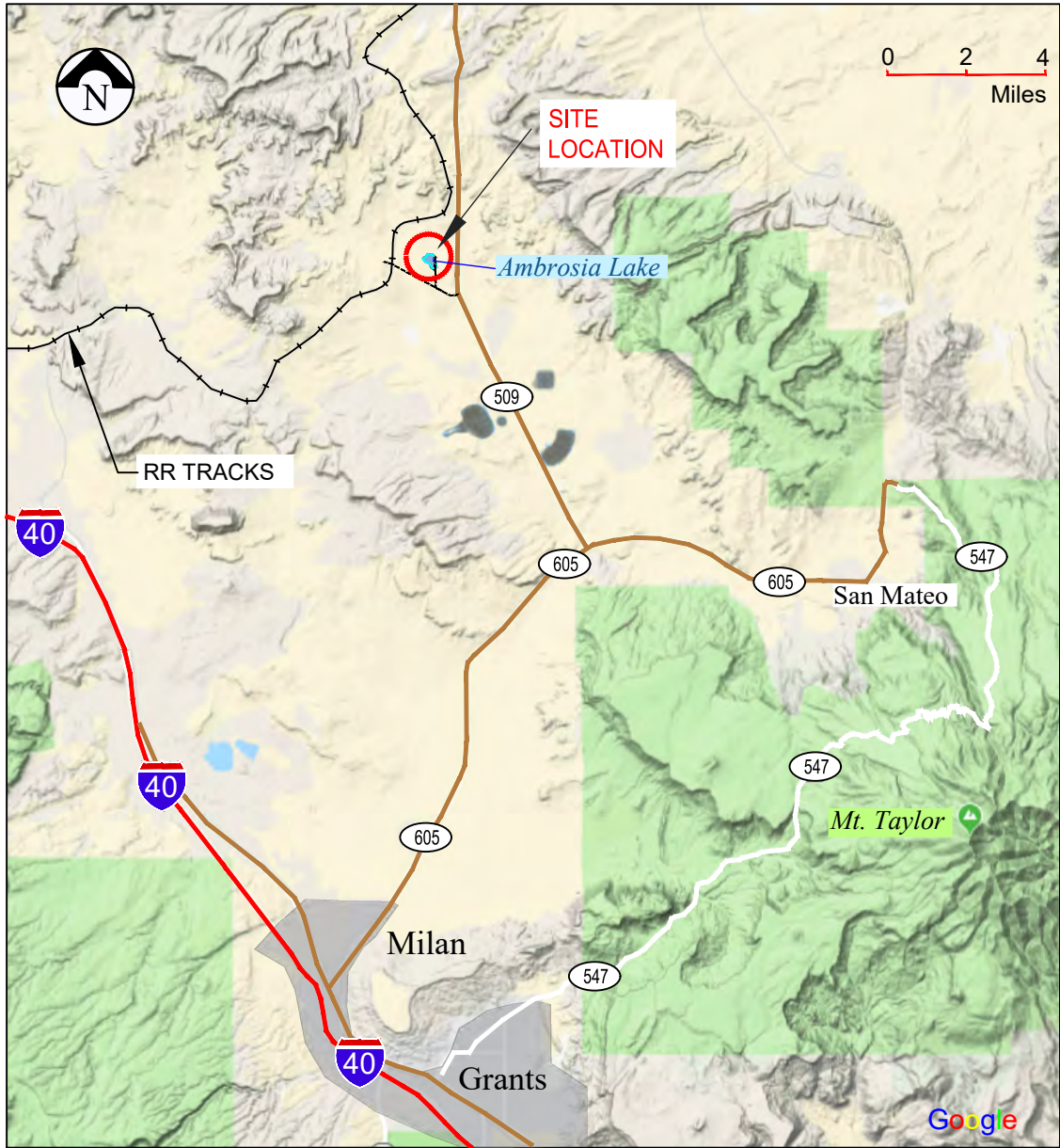


LOCATION MAP

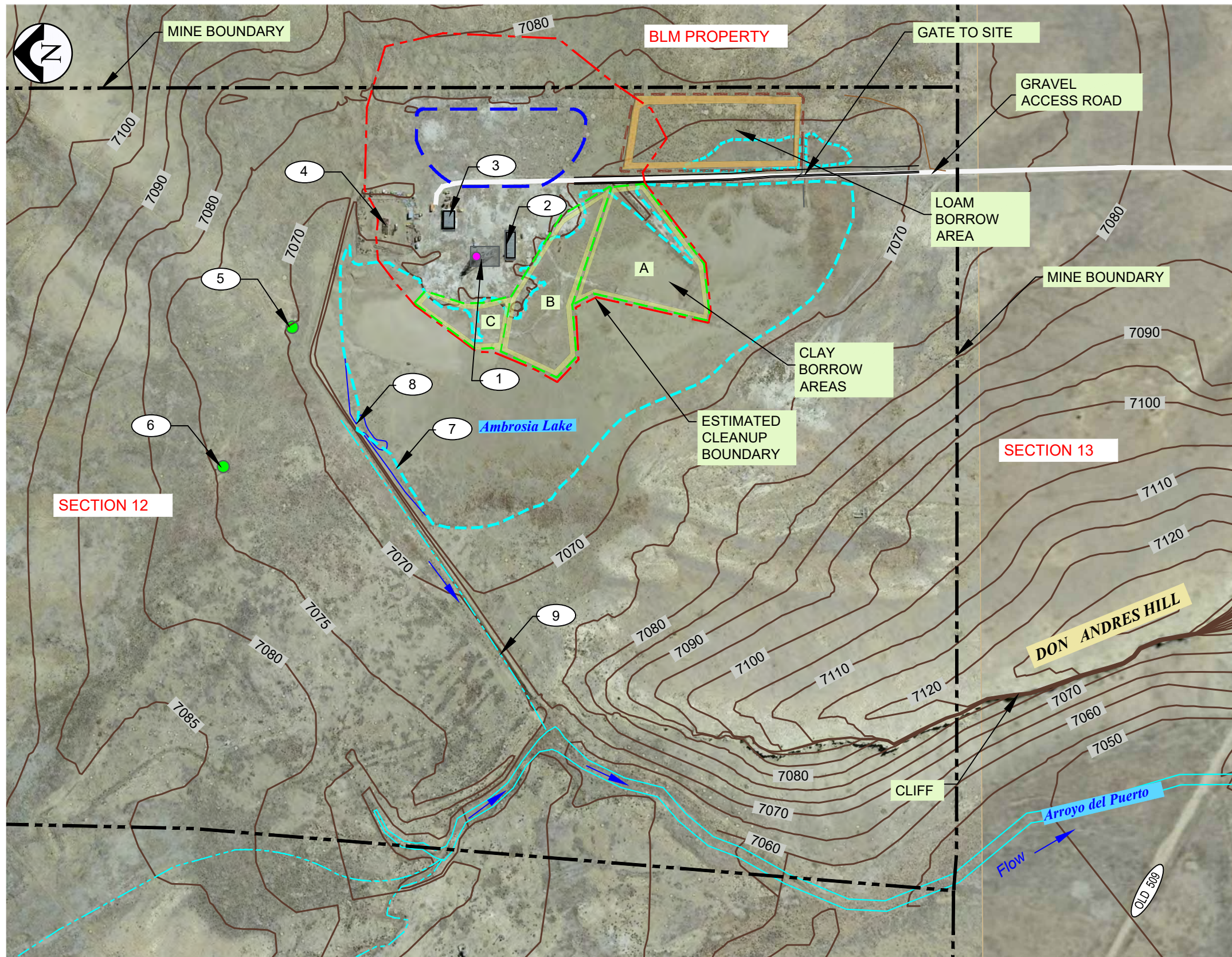


BACKGROUND MAP FROM GOOGLE MAPS

DRAWING INDEX

SHEET NO.	DWG NO.	SHEET TITLE
CL00	GS00-GC100-00	COVER SHEET - DRAWING INDEX
CL01	GS00-GC101-00	EXISTING MINE FEATURES AND BORROW AREAS
CL02	GS00-GC102-00	PREDICTED CONCENTRATIONS OF RADIUM 226
CL03	GS00-GC103-00	FACILITY DISPOSITION PLAN
CL04	GS00-GC104-00	REMEDIAL EARTHWORK AND REPOSITORY PLAN
CL05	GS00-GC105-00	GRADING PLAN
CL06	GS00-GC106-00	REPOSITORY PLAN
CL07	GS00-GC107-00	REPOSITORY N/S SECTION
CL08	GS00-GC108-00	REPOSITORY E/W SECTIONS

REV	DESCRIPTION	DATE	DRAWN BY	ENGINEER	APPROVED	SOUTH WEST RESOURCES		PROJECT TITLE: SECTION 12 MINE CLOSOUT/ CLOSURE PLAN	
A	FOR SUBMISSION	6-24-22	EL	AK					
						Prepared By:	DWG NO. GS00-GC100-00	SHEET TITLE: COVER SHEET - DRAWING INDEX	REV A
						Alan Kuhn Associates LLC	SIZE B SHEET NO. CL00		



- NOTES
- 1 HEADFRAME AND SHAFT
 - 2 HOIST HOUSE
 - 3 OFFICE BUILDING
 - 4 MINE DEBRIS PILE
 - 5 EAST VENT SHAFT
 - 6 WEST VENT SHAFT
 - 7 AMBROSIA LAKE FLOOD LEVEL = ELEV. 7069
 - 8 LAKE DRAINAGE POINT = ELEVATION 7069
 - 9 EXISTING BERM AND DRAINAGE SWALE

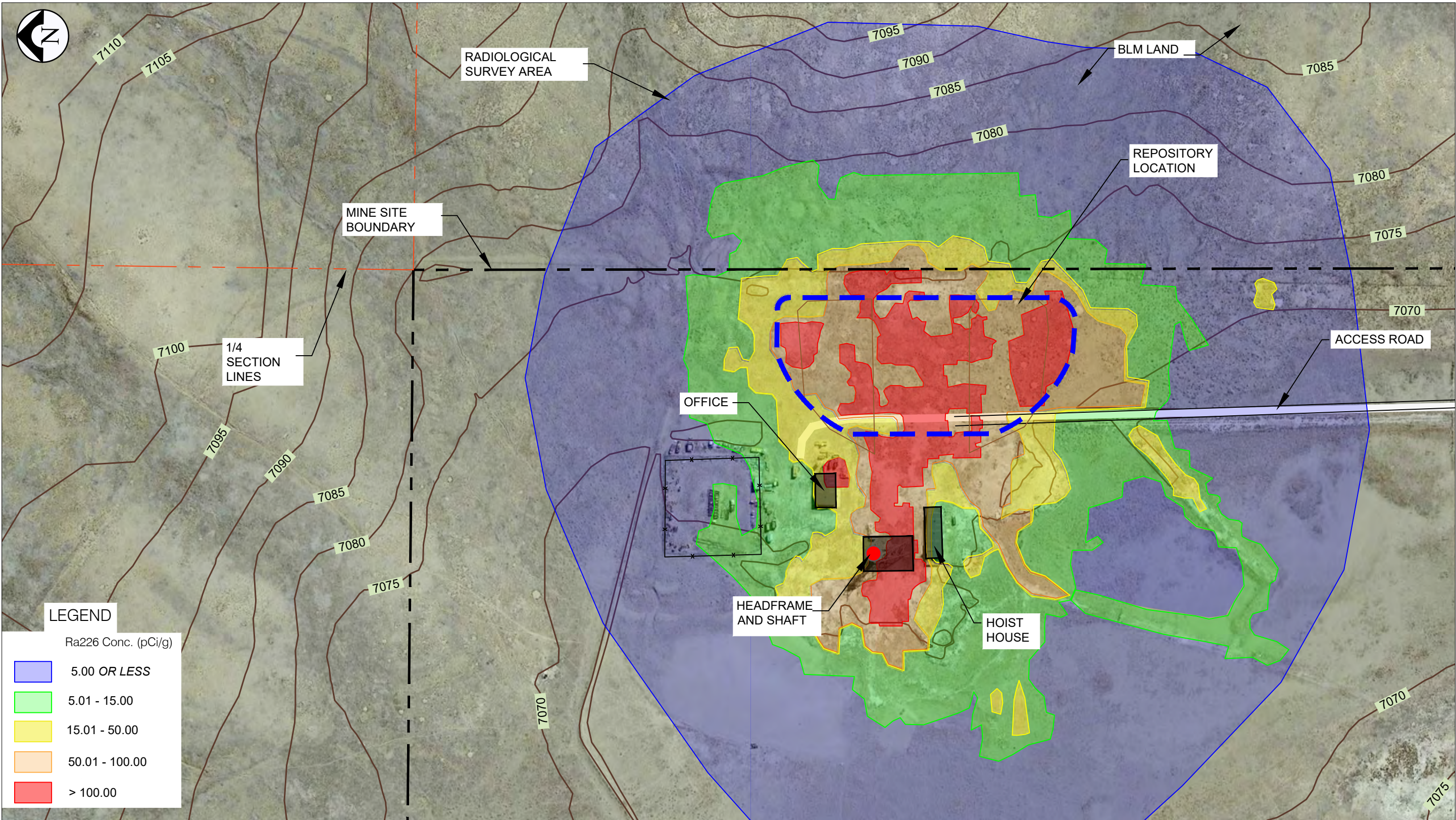
LEGEND

	PRIMARY CLAY BORROW AREAS
	PRIMARY LOAM BORROW AREA
	REPOSITORY
	AMBROSIA LAKE
	PROPERTY LINE
	BUILDING
	VENT LOCATION
	ESTIMATED CLEAN UP BOUNDARY

NOTE: BOUNDARY AREAS SHOWN ON THIS PLAN ARE APPROXIMATE

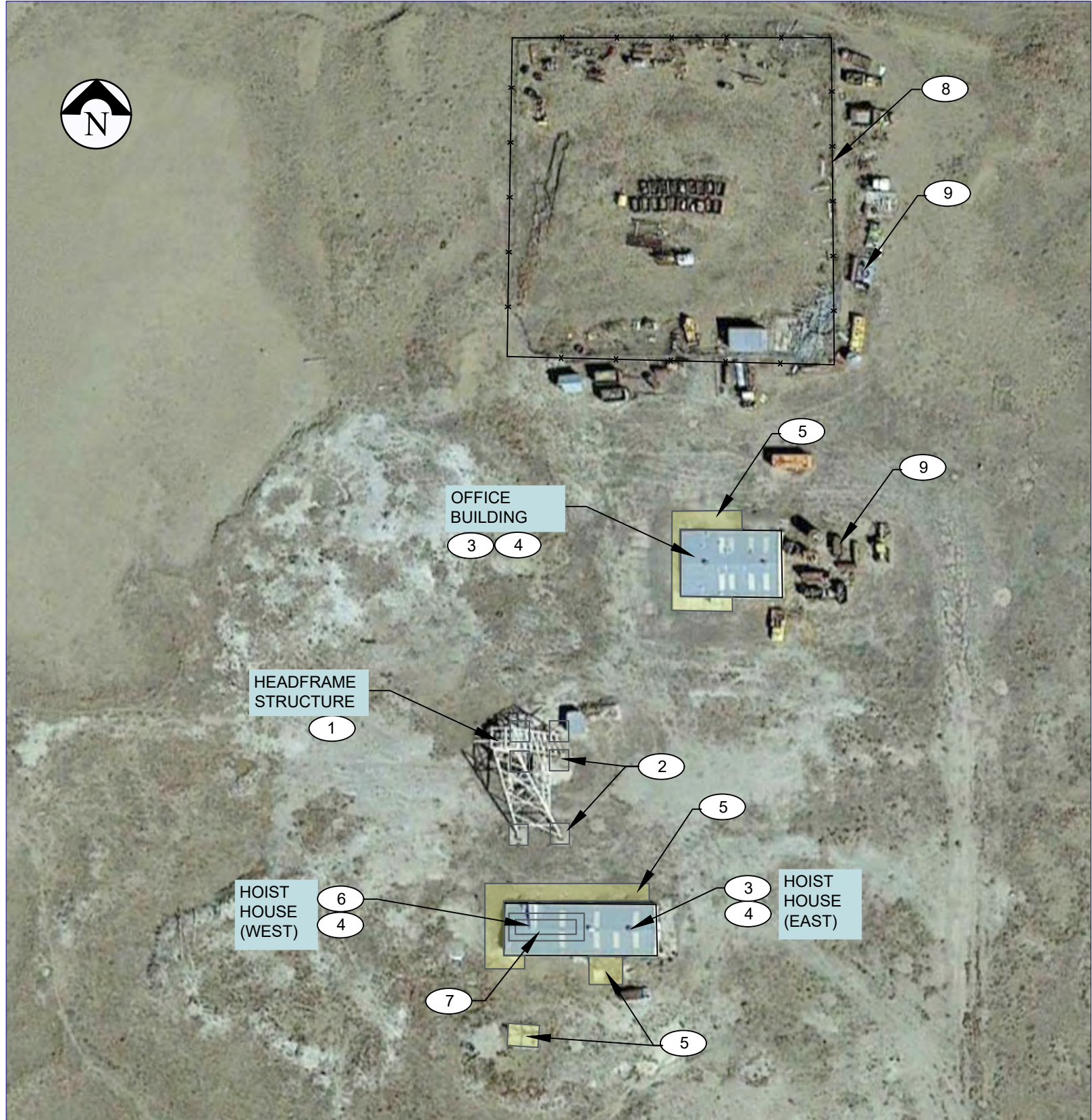


REV	DESCRIPTION	DATE	DRAWN BY	ENGINEER	APPROVED	SOUTH WEST RESOURCES		PROJECT TITLE: SECTION 12 MINE CLOSOUT/ CLOSURE PLAN	
A	FOR SUBMISSION	6-24-2022	EL	AK		Prepared By: Alan Kuhn Associates LLC	DWG NO. GS00-GC100-00 SIZE B SHEET NO. CL01	SHEET TITLE: EXISTING MINE FEATURES AND BORROW AREAS	REV A



NOTE: FIGURE DEVELOPED FROM (FIGURE 4.2 FROM ERG BASELINE RADIOLOGICAL REPORT DATED JANUARY 2017)

REV	DESCRIPTION	DATE	DRAWN BY	ENGINEER	APPROVED	SOUTH WEST RESOURCES		PROJECT TITLE: SECTION 12 MINE CLOSOUT/ CLOSURE PLAN	
A	FOR SUBMISSION	6-24-2022	EL	AK		Prepared By: Alan Kuhn Associates LLC		SHEET TITLE: PREDICTED CONCENTRATIONS OF RADIUM 226	
						DWG NO. GS00-GC102-00	SHEET NO. CL02		REV A



TASKS

HEADFRAME STRUCTURE

- 1 HEADFRAME TO BE REMOVED. HEADFRAME STEEL TO BE BURIED IN THE DEBRIS PIT OR CLEANED AND SOLD OFF-SITE BY THE CONTRACTOR.
- 2 CONTAMINATED HEADFRAME CONCRETE TO BE BROKEN AND DISPOSED OF IN THE DEBRIS PIT. CLEAN HEADFRAME CONCRETE MAY BE BROKEN IN PLACE AND COVERED WITH 2.0 FEET OF CLEAN LOAM SOIL.

OFFICE BUILDING (64' X 42')

- 3 THE OFFICE BUILDING STRUCTURE, CONCRETE SLABS, AND FOUNDATIONS MAY BE LEFT IN PLACE IF REQUESTED BY THE POST-MINING LAND OWNER. OTHERWISE, THE STRUCTURE WILL BE REMOVED AND SOLD OR DEMOLISHED AND BURIED IN THE DEBRIS PIT.
- 4 CONCRETE FLOOR SLAB.
- 5 EXTERIOR CONCRETE SLABS. (1,035 SF)

HOIST HOUSE (95' X 32')

- 3 THE EAST HALF OF THE HOIST HOUSE MAY BE RETAINED IF REQUESTED BY THE POST MINING LAND OWNER.
- 4 CONCRETE FLOOR SLAB.
- 5 EXTERIOR CONCRETE SLABS. (2,310 SF)
- 6 THE WEST HALF WILL BE REMOVED AND ALL STEEL AND DEBRIS SHALL BE BURIED IN THE DEBRIS PIT.
- 7 REMOVE HOIST EQUIPMENT CONCRETE FOUNDATIONS. DISPOSE OF ANY EQUIPMENT NOT SALVAGEABLE IN THE DEBRIS PIT.

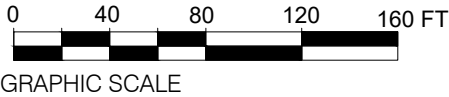
GENERAL SITE

- 8 REMOVE FENCING IN MINE AREA (800 LF).
- 9 REMOVE ANY MINE DEBRIS AND DEPOSIT IN DEBRIS PIT.

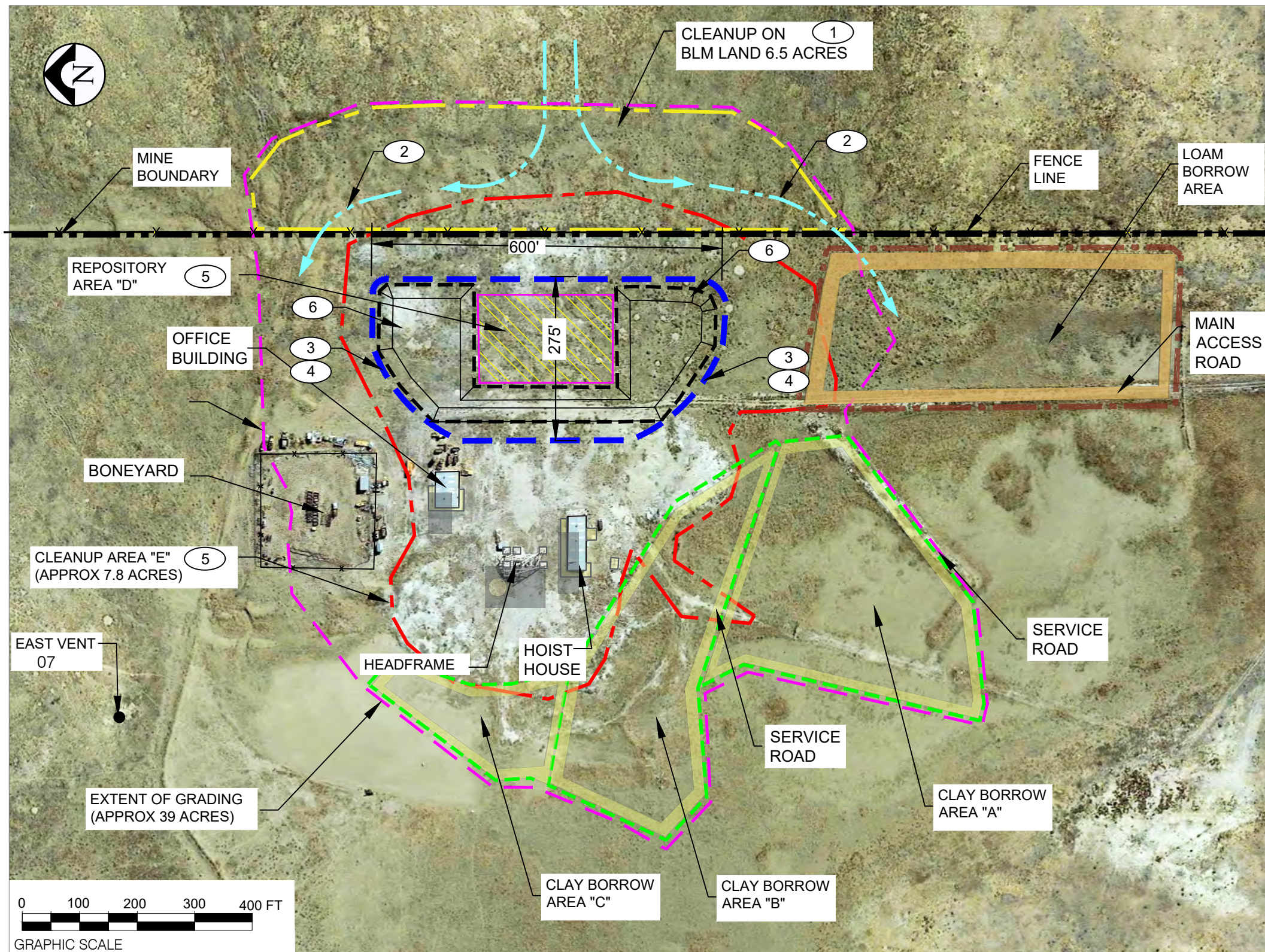
NOTES

EXISTING CONCRETE THAT IS NOT CONTAMINATED MAY BE BROKEN AND USED FOR RIP RAP.

ALL CONTAMINATED CONCRETE TO BE REMOVED, BROKEN, AND PLACED IN REPOSITORY.



REV	DESCRIPTION	DATE	DRAWN BY	ENGINEER	APPROVED	SOUTH WEST RESOURCES		PROJECT TITLE: SECTION 12 MINE CLOSOUT/ CLOSURE PLAN	
A	FOR SUBMISSION	6-24-2022	EL	AK				SHEET TITLE: FACILITY DESPOSITION PLAN	
						Prepared By: Alan Kuhn Associates LLC	DWG NO. GS00-GC103-00 SIZE B SHEET NO. CL03		REV A



PHASE 1 GRADING PLAN - (DONE PRIOR TO CLEANUP EXCAVATIONS)

BLM LAND GRADING STEPS

- 1 REMOVE CONTAMINATED SOILS ON BLM LAND.
- 2 RESTORE NATURAL RUNOFF FLOW PATTERNS AROUND REPOSITORY AREA.

INITIAL REPOSITORY GRADING STEPS

- 3 REMOVE CONTAMINATED SOILS AROUND PERIMETER OF REPOSITORY.
- 4 BUILD PERIMETER TOE OF SLOPE WITH CLEAN SOIL TO KEEP RUNOFF WATER OUT OF REPOSITORY AREA. APPROXIMATELY 3' ABOVE THE EXISTING GRADES.

PHASE 2 GRADING PLAN - (FIRST PART OF CLEANUP EXCAVATIONS)

- 5 REMOVE THE CONTAMINATED SOILS IN AREA "E" AND PLACE IN REPOSITORY AREA "D". MAXIMUM HEIGHT = 6'
- 6 EXCAVATE 2 MINE DEBRIS PITS AND A MINE DEBRIS TRENCH. PLACE CONTAMINATED SOILS FROM EXCAVATION IN AREA "D". STOCKPILE CLEAN SOILS AROUND REPOSITORY PERIMETER FOR USE AS COVER SOILS.(SEE SHEET CL06 FOR PIT DIMENSIONS).

LEGEND

- REPOSITORY AREA "D" FOR PHASE 1 CLEANUP (CONTAMINATED SOILS FROM AREA "E")
- FOOTPRINT OF REPOSITORY AT MAXIMUM BUILDOUT WITH COVER SOILS IN PLACE.
- MINE DEBRIS DISPOSAL PITS
- CLEANUP AREA "E" (RAD READINGS ABOVE 50pCi/G) = 7.8 ACRES TO CLEAN OUTSIDE OF THE REPOSITORY.
- CLEANUP IN BLM LAND. (6.5 ACRES)
- ESTIMATED EXTENT OF GRADING (39 ACRES)
- CLAY BORROW AREAS
- LOAM BORROW AREAS

GENERAL NOTES:

- G.1 THE EXTENT OF GRADING BOUNDARY AND THE BOUNDARY OF AREA "A" ARE BASED ON ERG REPORT SHEET CL02
- G.2 CONCRETE SLABS AND FOUNDATIONS WILL BE REMOVED TO POST-EXCAVATION SURFACE GRADE. CONCRETE BELOW THAT GRADE WILL BE LEFT IN PLACE AND COVERED WITH CLEAN SOIL.

REV	DESCRIPTION	DATE	DRAWN BY	ENGINEER	APPROVED
A	FOR SUBMISSION	6-24-2022	EL	AK	

SOUTH WEST
RESOURCES

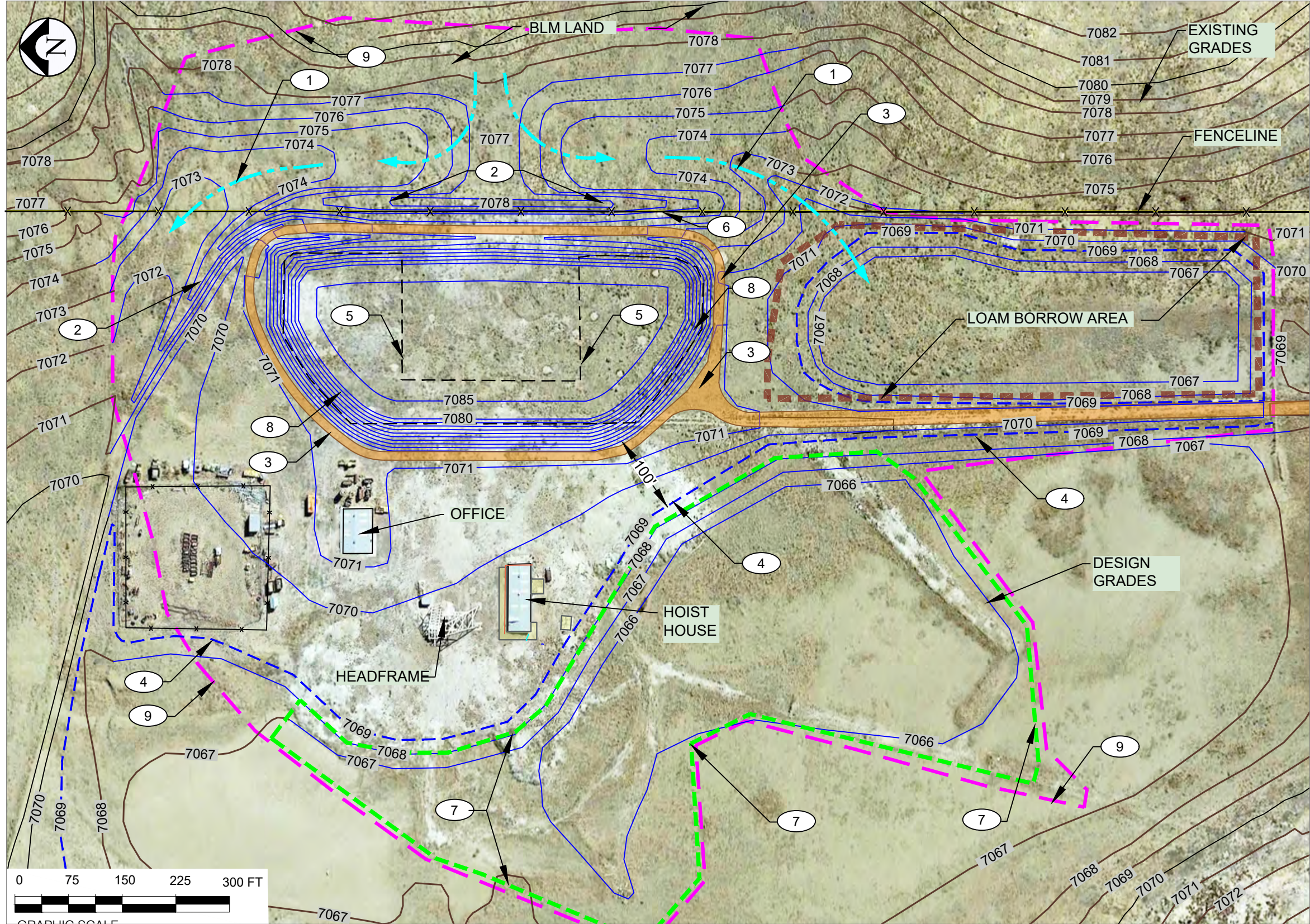
Prepared By:
Alan Kuhn Associates LLC

DWG
NO. GS00-GC104-00
SIZE
B SHEET
NO. CL04

PROJECT TITLE:
SECTION 12 MINE CLOSOUT/ CLOSURE PLAN

SHEET TITLE: REMEDIAL EARTHWORK AND
REPOSITORY PLAN

REV
A



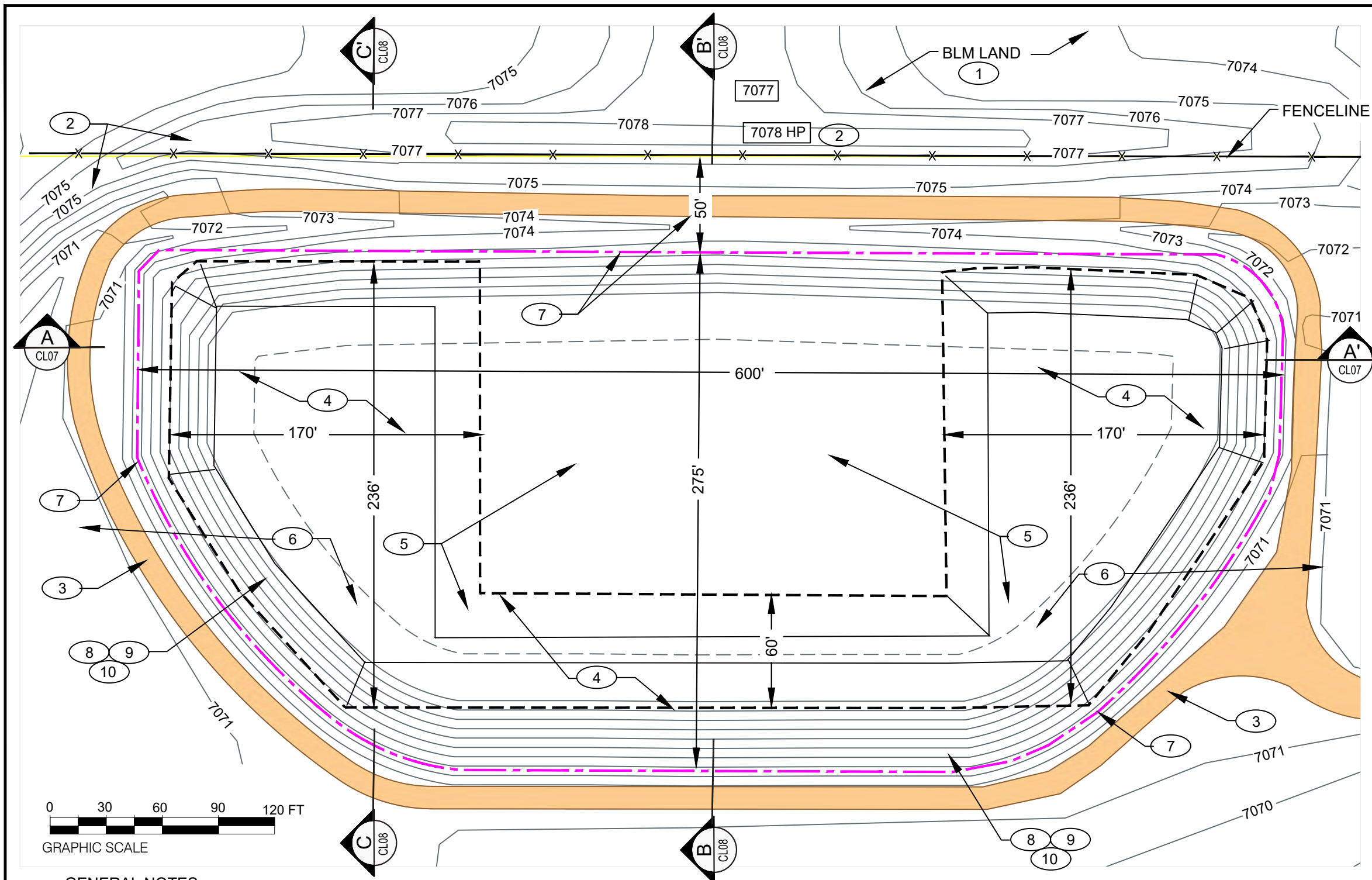
NOTES

- 1 REMOVE CONTAMINATED SOILS ON BLM LAND AND RESTORE NATURAL RUNOFF FLOW PATTERNS AROUND THE REPOSITORY.
- 2 RESTORE EXISTING DIVERSION BERM.
- 3 12' WIDE PERIMETER SERVICE ROAD TO ACT AS A PROTECTION BUFFER AROUND THE TOE OF THE REPOSITORY. THE ELEVATION OF THE ROAD TO BE NO LESS THAN 7071. (2' ABOVE THE FLOOD WATER LEVEL).
- 4 FLOOD WATER LEVEL IN AMBROSIA LAKE = 7069'. THE TOE OF THE REPOSITORY IS 2' HIGHER AND 100' OFFSET FROM THIS WATER LEVEL.
- 5 MINE DEBRIS PITS AND TRENCH. SEE SHEET CL06 FOR DETAILS.
- 6 KEEP ALL CONTAMINATED FILL A MINIMUM OF 50' FROM THE MINE PROPERTY LINE.
- 7 CLAY BORROW AREAS. EXCAVATE NO DEEPER THAN 1' BELOW THE AVERAGE LAKEBED.
- 8 REPOSITORY. HEIGHT WILL BE DETERMINED BY THE AMOUNT OF CONTAMINATED SOILS AND MINE DEBRIS ARE ENCOUNTERED. SEE SHEET CL06 FOR REPOSITORY DETAILS.
- 9 EXTENTS OF GRADING AND CLEANUP. (30.9 ACRES.)

GENERAL NOTES

- G.1 THE GRADES SHOWN ON THIS DRAWING ARE FOR INFORMATIONAL PURPOSES ONLY. THE ACTUAL FINAL GRADES WILL BE DETERMINED BY THE AMOUNT OF CONTAMINATED SOILS ARE REMOVED.
- G.2 WHEN PLACING CONTAMINATED SOILS IN THE REPOSITORY THE CONTRACTOR SHALL TAKE TEMPORARY MEASURES, SUCH AS SMALL BERMS, TO KEEP STORM RUNOFF FROM LEAVING THE REPOSITORY.
- G.3 GRADING CONTRACTOR TO PROVIDE SWPP MEASURES PER STATE REGULATIONS.
- G.4 DURING CLEANUP OPERATIONS CONTRACTOR TO TAKE MEASURES TO REDUCE THE SPREAD OF CONTAMINATION BY EITHER TRUCK TRAFFIC OR BY STORM RUNOFF.

REV	DESCRIPTION	DATE	DRAWN BY	ENGINEER	APPROVED	SOUTH WEST RESOURCES		PROJECT TITLE: SECTION 12 MINE CLOSOUT/ CLOSURE PLAN	
A	FOR SUBMISSION	6-24-22	EL	AK		Prepared By: Alan Kuhn Associates LLC		DWG NO. GS00-GC105-00	SHEET TITLE: GRADING PLAN
						SIZE B		SHEET NO. CL05	REV A

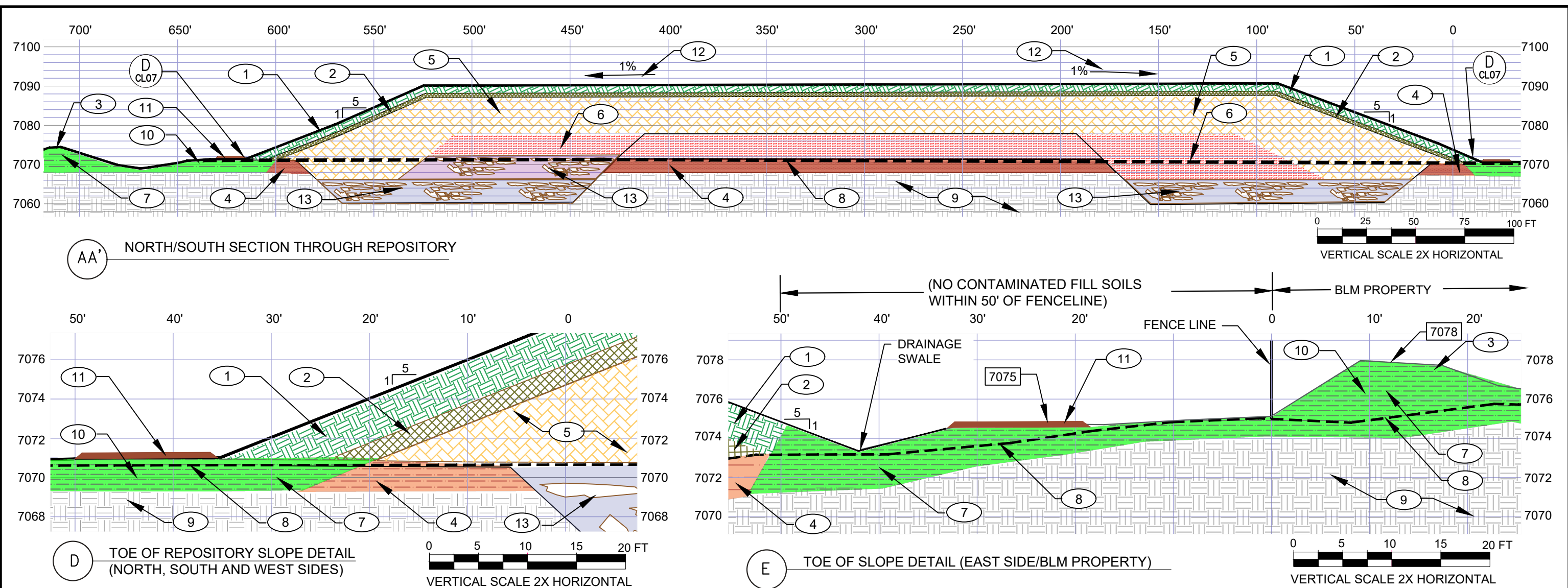


- NOTES
- 1 REMOVE CONTAMINATED SOILS ON BLM LAND AND RESTORE NATURAL RUNOFF FLOW PATTERNS AROUND THE REPOSITORY AREA BEFORE ANY EARTHWORK IS DONE WITHIN THE REPOSITORY AREA.
 - 2 RESTORE EXISTING DIVERSION BERM.
 - 3 12' WIDE PERIMETER SERVICE ROAD TO ACT AS A PROTECTION BUFFER AROUND THE TOE OF THE REPOSITORY. THE ELEVATION OF THE ROAD TO BE NO LESS THAN 7071. (2' ABOVE THE FLOOD WATER LEVEL).
 - 4 MINE DEBRIS PITS AND TRENCH. DIMENSIONS AS SHOWN. EXCAVATE PITS ABOUT 8 TO 10 FEET BELOW EXISTING GRADES OR UNTIL UNWEATHERED SHALE THAT WOULD REQUIRE RIPPING IS ENCOUNTERED. PIT SIDE SLOPES TO BE NO STEEPER THAN 3H:1V
 - 5 PLACE CONTAMINATED SPOILS FROM THE DEBRIS PITS IN THE CENTER OF THE REPOSITORY AREA.
 - 6 STOCKPILE CLEAN SPOILS FROM THE DEBRIS PITS AROUND THE PERIMETER OF THE REPOSITORY AREA FOR USE AS COVER SOILS.
 - 7 EXTENT OF CONTAMINATED FILL. KEEP ALL CONTAMINATED FILL A MINIMUM OF 50' FROM THE MINE PROPERTY LINE.
 - 8 ALL REPOSITORY SLOPES = 5H:1V.
 - 9 REPOSITORY HEIGHT WILL BE DETERMINED BY THE AMOUNT OF CONTAMINATED SOILS AND MINE DEBRIS ARE ENCOUNTERED.
 - 10 REPOSITORY COVER SOILS TO CONSIST OF 1' OF CLAY AND 2' OF LOAM. SEE PROJECT SPECIFICATIONS FOR COVER MATERIAL AND PLACEMENT REQUIREMENTS.

GENERAL NOTES

- G.1 DURING CLEANUP OPERATIONS CONTRACTOR TO TAKE MEASURES TO REDUCE THE SPREAD OF CONTAMINATION BY EITHER TRUCK TRAFFIC OR BY STORM RUNOFF.
- G.2 WHEN PLACING CONTAMINATED SOILS IN THE REPOSITORY THE CONTRACTOR SHALL TAKE TEMPORARY MEASURES, SUCH AS SMALL BERMS, TO KEEP STORM RUNOFF FROM EITHER ENTERING OR LEAVING THE REPOSITORY.
- G.3 CONTRACTOR TO PROVIDE SWPP MEASURES PER STATE REGULATIONS.

REV	DESCRIPTION	DATE	DRAWN BY	ENGINEER	APPROVED	SOUTH WEST RESOURCES		PROJECT TITLE:	
A	FOR SUBMISSION	6-24-2022	EL	AK				SECTION 12 MINE CLOSOUT/ CLOSURE PLAN	
						Prepared By:	DWG NO. GS00-GC106-00	REPOSITORY GRADING PLAN	REV A
						Alan Kuhn Associates LLC	SIZE B SHEET NO. CL06		



LEGEND



NOTES

- 1 GROWTH MEDIA SOILS (LOAM) 24" THICK. GRADE REPOSITORY SLOPES TO 5H:1V
- 2 CLAY RADON BARRIER COVER SOILS 12" THICK
- 3 RESTORE DIVERSION BERMS AND DRAINAGE SWALES TO DIVERT RUNOFF AROUND REPOSITORY.
- 4 EXISTING BELOW GRADE RADWASTE (ESTIMATED DEPTH = 1.5' THICK) (OUTSIDE OF REPOSITORY- REMOVE AND PLACE IN THE SHAFT OR REPOSITORY.) (INSIDE OF REPOSITORY FOOTPRINT - LEAVE IN PLACE.)
- 5 RADWASTE FILL (5-50 pCi/g) (THICKNESS AS NEEDED - PLACE IN UPPER LEVELS OF THE REPOSITORY)
- 6 RADWASTE FILL (51 - 100 pCi/g) (THICKNESS AS NEEDED - PLACE IN THE CENTER AND AT THE BOTTOM OF THE REPOSITORY)
- 7 CLEAN SOIL FILL AS NEEDED TO ACHIEVE FINAL GRADES.
- 8 EXISTING GROUND SURFACE.
- 9 EXISTING UNCONTAMINATED SOILS

- 10 GRADING OUTSIDE OF REPOSITORY= REMOVE ALL CONTAMINATED SOILS, DEPOSIT THEM IN THE REPOSITORY, AND FILL WHERE NEEDED WITH CLEAN SOILS TO ESTABLISH FINAL GRADES.
- 11 12' WIDE PERIMETER SERVICE ROAD TO ACT AS A PROTECTION BUFFER AROUND THE TOE OF THE REPOSITORY. THE ELEVATION OF THE ROAD TO BE NO LESS THAN 7071. (2' ABOVE THE FLOOD WATER LEVEL).
- 12 TOP OF REPOSITORY WILL BE DETERMINED BY THE AMOUNT OF CONTAMINATED SOILS AND MINE DEBRIS PLACED IN THE REPOSITORY. THE TOP TO SLOPE 1% TO THE WEST.
- 13 MINE DEBRIS PITS AND TRENCH. SIDE SLOPES TO BE NO STEEPER THAN 3H:1V. THE CONTRACTOR MAY CONSTRUCT AS MANY DEBRIS PITS AS IS NEEDED WITHIN THE REPOSITORY AREA FOR THE DISPOSAL OF THE MINE DEBRIS. (SEE GENERAL NOTE G.2)

GENERAL NOTES

- G.1 DURING CLEANUP OPERATIONS CONTRACTOR TO TAKE MEASURES TO REDUCE THE SPREAD OF CONTAMINATION BY EITHER TRUCK TRAFFIC OR BY STORM RUNOFF.
- G.2 FOR ALL MATERIAL AND PLACEMENT REQUIREMENTS SEE PROJECT SPECIFICATIONS.
- G.3 THE ACTUAL HEIGHT OF THE VARIOUS LAYERS IN THE REPOSITORY WILL DEPEND ON THE QUANTITY OF CONTAMINATED SOILS ENCOUNTERED DURING THE CLEANUP.

REV	DESCRIPTION	DATE	DRAWN BY	ENGINEER	APPROVED	SOUTH WEST RESOURCES		PROJECT TITLE:	
A	FOR SUBMISSION	6-24-2022	EL	AK		Prepared By: Alan Kuhn Associates LLC		SECTION 12 MINE CLOSOUT/ CLOSURE PLAN	
						DWG NO. GS00-GC107-00		REPOSITORY NORTH/SOUTH SECTION	
						SIZE B	SHEET NO. CL07		REV A

