

Table 1.1 Existing Permits

<u>NAME OF PERMIT</u>	<u>PURPOSE</u>	<u>EXPIRES</u>
<u>FEDERAL</u>		
NPDES NM 0028100	MINE WATER DISCHARGE	JULY 2015
MULTI-GENERAL STORM WATER PERMIT #NMR05GB27	STORM WATER DISCHARGE INDUSTRIAL PLANT	SEPTEMBER 2013
US FOREST SERVICE "SPECIAL USE PERMIT"	24" WATER TRANSMISSION PIPELINE	DECEMBER 2028
<u>STATE OF NEW MEXICO</u>		
DISCHARGE DP-1712	TEMPORARY BENCH TEST	JUNE 2015
DISCHARGE DP-61	MINE WATER DISCHARGE & RETENTION	APPROVAL PENDING
RADIOACTIVE SOURCE LICENSE – #SO0435-08	RADIATION SOURCES ONLY	DECEMBER 2012
RADIOACTIVE MATERIAL LICENSE	MATERIAL and I-X PLANT	NEW APPLICATION IN PREPARATION
STAND-BY MINE PERMIT # C1002RE –REVISION 10-1	STANDBY STATUS	OCTOBER 2014
SOLID WASTE LANDFILL FOR MINE	MINE WASTE & LANDFILL	NO RENEWAL NEEDED

Table 2.1 Water Quality Test Results for Mine Pool in 24-ft Shaft

CONSTITUENT	20.6.2.3103 NMAC STANDARDS FOR GROUND WATER OF 10,000 mg/l TDS CONCENTRATION OR LESS	MEASURED VALUE OF SAMPLE COLLECTED ON 09/28/07	VALUE VS STANDARD
Uranium	0.03 mg/l	0.071 mg/l	above standard
Radium 226	30 pCi/l	16.8 pCi/l	below standard
Selenium	0.05 mg/l	not detected	below standard
	<i>for Domestic Water Supply</i>		
Chloride	250 mg/l	4 mg/l	below standard
Iron	1.0 mg/l	0.05 mg/l	below standard
Sulfate	600 mg/l	44 mg/l	below standard
Total dissolved solids	1000 mg/l	358 mg/l	below standard
Zinc	10 mg/l	not detected	below standard
pH	6 to 9 s.u.	8.38.0 s.u.	within range
	<i>for Irrigation Use</i>		
Molybdenum	1.0 mg/l	0.2 mg/l	below standard

Table 2.2 Water Quality Test Results for Point Lookout Aquifer, Well 2A

CONSTITUENT	20.6.2.3103 NMAC STANDARDS FOR GROUND WATER OF 10,000 mg/l TDS CONCENTRATION OR LESS	MEASURED VALUE OF SAMPLE COLLECTED ON 09/28/07	VALUE VS STANDARD
Uranium	0.03 mg/l	0.0012 mg/l	below standard
Radium 226	30 pCi/l	0.24 pCi/l	below standard
Selenium	0.05 mg/l	0.001 mg/l	below standard
	<i>for Domestic Water Supply</i>		
Chloride	250 mg/l	6 mg/l	below standard
Iron	1.0 mg/l	not detected	below standard
Sulfate	600 mg/l	92 mg/l	below standard
Total dissolved solids	1000 mg/l	523 mg/l	below standard
Zinc	10 mg/l	0.11 mg/l	below standard
pH	6 to 9 s.u.	9.0 s.u.	within range
	<i>for Irrigation Use</i>		
Molybdenum	1.0 mg/l	not detected	below standard

Table 2.3 Disposition of Deep Wells

Well No.	Closure Disposition	State Plane Coordinates		Collar Elevation, Feet AMSL	Depth (feet)	Casing/liner Size
		x	y			
1	PMLU	559875	1579789	7335	1118	NA
2	Plug	59854	1579494	7335	2920	9 5/8" casing
2-a	PMLU	559900	1579490	7336	925	NA
3	PMLU	560044	1579378	7336	1150	NA
4	PMLU	560270	1579335	7345	1130	NA
5	PMLU	560504	1579406	7402	1172	NA
6	PMLU	560650	1579582	7395	1190	8 5/8" casing
7	PMLU	560624	1579823	7375	1125	8 5/8" casing
8	PMLU	560490	1580088	7341	1044	8 5/8" casing
9	Plug	560230	1580089	7333	2845	9 5/8" casing
10	PMLU	559983	1579989	7333	1065	8 5/8" casing
11	Plug	560493	1579216	7442	3028	9 5/8" casing
12	Plug	560689	1579790	7414	2940	9 5/8" casing
13	Plug	559315	1579749	7317	3815	10 3/4" casing , 7" liner
14	Plug	559431	1579218	7331	3205	10 3/4" casing , 7" liner
15	Plug	559750	1578861	7339	3205	10 3/4" casing , 7" liner
16	Plug	560247	1578702	7388	3275	10 3/4" casing , 7" liner
17	Plug	560813	1578942	7492	3342	10 3/4" casing , 7" liner
18	Plug	561030	1579275	7495	3314	10 3/4" casing , 7" liner
19	Plug	561030	1579863	7449	3274	10 3/4" casing , 7" liner
20	Plug	560754	1580315	7381	3223	10 3/4" casing , 7" liner
21	Plug	560216	1580535	7316	3184	10 3/4" casing , 7" liner
22	Plug	559711	1580269	7302	3195	10 3/4" casing , 7" liner
SM-24-38	Plug	560231	1579458	7390	3535	10 3/4" casing , 7" liner
SM-24-43	Plug	560258	1579501	7347	3535	10 3/4" casing , 7" liner

*Well 2-a supplies domestic water from the Pt. Lookout Sandstone and is located approximately 200-300 feet west of the 24 ft shaft.

Table 2.4 Mine Water Treatment Ponds Area Radiological Profile
(see Table 2, App. D.3.1 for lab data and App. D.1.1 for sample locations)

Ponds Areas and Sediment Volumes

Pond #	Surface Area of Pond Basin, sf	Average Depth of Sediment in Pond, ft	Surface Area** of Pond Sediment, sf	Estimated Sediment Volume, cy	Ra-226 Concentrations in Sediments, pCi/g
1	44600	0.67	28302	699	113-224
2	31550	1.0 *	23241	1000 *	wet, no samples
3	43100	0.96	27966	991	6.4-21
4	68750	0.75	37708	1047	0.8-18.1
5	72831	1.63	36718	2210	0.8-11.3
6	11100	1.5	5056	281	0.8-6.4
7	10700	2.21	5064	414	1.0-10.4
8	45250	2.25	21729	1811	2.5-27.2

* Estimated values. Standing water prevented direct measurement or sediment sampling.

** Surface areas from AutoCad calculation based on existing base map from 1991.

Other Soil Samples in the MWTU Area

Location	Sample ID	Sample Depth, ft	Ra-226, pCi/g
Pond 1 berm	MT-1-F	0.5	2
Pond 2 berm	MT-2-D	0.5	0.6
Pond 3 berm	MT 3-F	0.5	0.9
Area A	MT-A-A	0-0.3	152
Area A	MT-A-A	0.5-0.7	8.7
Area A	MT-A-A	2.3-2.5	1.7
Area A	MT-A-B	0-0.3	275
Area A	MT-A-B	0.7-0.9	5.4
Area A	MT-A-B	2.5-2.8	29.3
Area A	MT-A-C	0.5	1.7
Borrow Area	MT-borrow	2.0-5.5	0.7
N. Storm Pond	MT-OP-C-S1	0-0.5	53.3
N. Storm Pond	MT-OP-C-S2	1.7	1.7
N. Storm Pond	MT-OP-C-S3	4.0-4.2	0.8
N. Storm Pond	MT-OP-C-S4	6	1.5
N. Storm Pond	MT-OP-D-S1	0-0.5	51.9
N. Storm Pond	MT-OP-D-S2	4.0-4.2	1.9
N. Storm Pond	MT-OP-D-S3	6.3	0.6
N. Storm Pond Berm	MT-OP-E	0.5	1.1

Table 5.1 Building Inventory

Building Name	Building Type	Dimensions	Volume, ft ³	Disposition at Closeout	
				Demolish	Retain for Owner
Compressor Building	Steel frame and siding	40'4"x40'2"x16'	25921		X
York Chiller (Chill Water) Building	Steel frame and siding	100'x50'x30'	150000		X
Pump Building (Chill Water Pump House)	Steel frame and siding	40'x24'x16'	15360		X
Chlorine Building	Concrete Block	23'x50'6"x20'	23230	X	
Shaft Heating Building	Steel frame and siding	50'x30'x16'	24000	X	
Glycol Heat Exchanger	Steel frame and siding	50 x 30 x 16	24000	X	
Hoist House	Steel frame and siding	162'x120'x40'	777600		X
Cooling Tower	Steel frame and siding	75 x 25 x 25	46875	X	
Guard House (Security Building)	Steel frame and siding	63'x20'6"x16'	20664		X
Fire Equipment Building (Fire House)	Steel frame and siding	27'x24'x16'	10368		X
Service Building (Office and Warehouse)	Steel frame and siding	194'x138'x24'	642528		X
Car (Maintenance) Shop	Steel frame and siding	150'x100'x30'	450000		X
Carpenter Shop	Steel frame and siding	45'x24'x16'	17280		X
Electrical Building	Steel frame and siding	62'x30'x16'	29760		X
Water Treatment and Boiler Building	Steel frame and siding	62'x50'x16'	49600		X
Core Storage Building	Steel frame and siding	100x38'x16'	60800		X
Fan Shop	Steel frame and siding	40 x 30 x 12	14400		X
Storage Building	Steel frame and siding	28'x30'x16'	13440		X
Flocculant Treatment Facility	Steel frame and siding	30'x23'x12'	8280	X	
Barium Chloride Treatment Facility	Steel frame and siding	40'x25'x16'	16000	X	
Ion Exchange Plant	Steel frame and siding	140'x70'x40'	392000	X	
Water Tank	Steel		300,000 gal		X
Fuel Storage Tanks	Steel		various		X

Table 5.2 Inventory of Potential Contaminants on Hand

DESCRIPTION	MATERIAL SAFETY DATA CAS #'s					
Antifreeze/Coolant	107-21-1					
Coherex	64742-34-3 64742-11-6					
Diesel Fuel #2	68476-34-6	64742-80-9	64741-44-2	8008-20-6	64742-81-0	94741-59-9
Engine Oil	91-20-3					
Gasoline Fuel	68649-42-3					
	86290-81-5	71-43-2	108-88-3	100-41-4	1330-20-7	106-97-8
	110-54-3	110-82-7	108-87-2	540-84-1	91-20-3	64-17-5
	637-92-3	994-05-8	142-82-5	1634-04-04		
Grease	686-42-3 Mixture					
Holeplug 3/8	14464-46-1	15468-32-3	1302-78-9	14808-60-7		
Hydraulic Oil	Mixture					
Insulating Oil	64741-97-5 64742-53-6					
Lubricant - Gear	Mixture					
Transmission Fluid	Mixture					

Quantities on hand vary and are replaced as they are consumed.

Table 5.3

Seed Mix: Selected Species and Planting Rates-

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1. Western wheatgrass (*Aquopyron smithii*) Rate: 6 PLS/ft²
Cool season native perennial grass. reproduces from seeds and rhizomes. growth starts when daytime temperatures reach 12-13 C, grows in dry, rocky soils.
 2. Winterfat (*Ceratoides /anata*)* Rate: 2 PLS/ft²
 3. Blue grama (*Bouteloua gracilis*)* Rate: 6.0 PLS/ft²
Warm season native perennial grass. reproduces from seed, tillers, and rhizomes, growth starts May- June. grows on rock slopes.
 4. Galleta (*Hilaria jamesii*) Rate: 6 PLS/ft²
 5. Alkali Sacaton (*Sporobolus airoides*) Rate: 6 PLS/ft²
 6. Mountain mahogany (*Cercocarpus montanus*) Rate: 2 PLS/ft²
 7. Fourwing saltbush (*Atriplex canescens*) Rate: 2 PLS/ft²
Evergreen native perennial shrub. reproduces from seeds, grows on grassy uplands, excellent reclamation species.
 8. Globemallow (*Sphaeralcea fend/en*) Rate: 2 PLS/ft²
 9. Narrowleaf Penstemon (*Penstemon angustifolia*) Rate: 2 PLS/ft²
 10. New Mexican feathergrass (*Stipa neomexicana*) Rate: 6 PLS/ft²
Cool season native perennial grass, reproduces by seed and tillers, growth starts mid-spring. grows on rocky slopes.
 11. Yellow Sweet Clover (*Melilotus*) Rate: 0.5 lbs/acre
 12. Spring wildflower mix

* black grama may be substituted for these species. Other variations and substitutions may be made based on cost and availability of seed at the time of closeout.

Seed origin and quality specifications: Seed should be harvested from native stands within 200 miles north, 300 miles south, 200 miles west and 100 miles east of Mt. Taylor. If seed from native stands is not available, seed of suitable quality grown under appropriate conditions or seed of released cultivars known to be adapted to the San Mateo area may be used. All seed must be certified, and each seed bag must have attached to it a complete label with certification information.

Table 5.4 Interim Vegetation Success Standards

POTENTIAL PLANT COMMUNITY FROM NRCS RANGE SITE DESCRIPTIONS			
Section IIE, Technical Guide			
Natural Plant Species	Percentage of Potential Production		
	Clayey Bottomland Mapping Unit 257	Bottomland Mapping Unit 57	Average
Western Wheatgrass	35-45	20-30	32
Alkali Sacaton	5-10	30-40	21
Vine Mesquite	10-15	1-5	7
Blue Grama, Spike Mulhy, Galleta	15-25	10-15	16
Bottlebrush Squirreldtail	1-3	1-5	2
Fourwing Saltbush	3-10	3-10	6
Winterfa	1-3		2
Rabbitbush, Broom Snakeweed	1-5	1-5	3
Forbs	3-8	1-5	4
others	1	9	5
Ground Cover, %	50	55	52
Production, lb./acre	1250-3200	1200-3000	2162
PROPOSED INTERIM STANDARDS			
Plant Species	Percentage of Production	Standard	
Western Wheatgrass	32	20-45	
Alkali Sacaton	20	5-40	
New Mexican Feathergrass	20	10-30	
Blue Grama, Spike Mulhy, Galleta	16	10-25	
Fourwing Saltbush	6	3-10	
Winte	2	1-3	
Mountain Mahogany	1	0-5	
Globemallow	1	0-5	
Narrowleaf Penstemon	1	0-5	
other	1	0-10	
Ground Cover, --- 70% of potential			
Production, lb./acre --- 50% of potential			
Variations and substitutions may be made in the seed mix, based on seed availability and cost at time of closeout.			