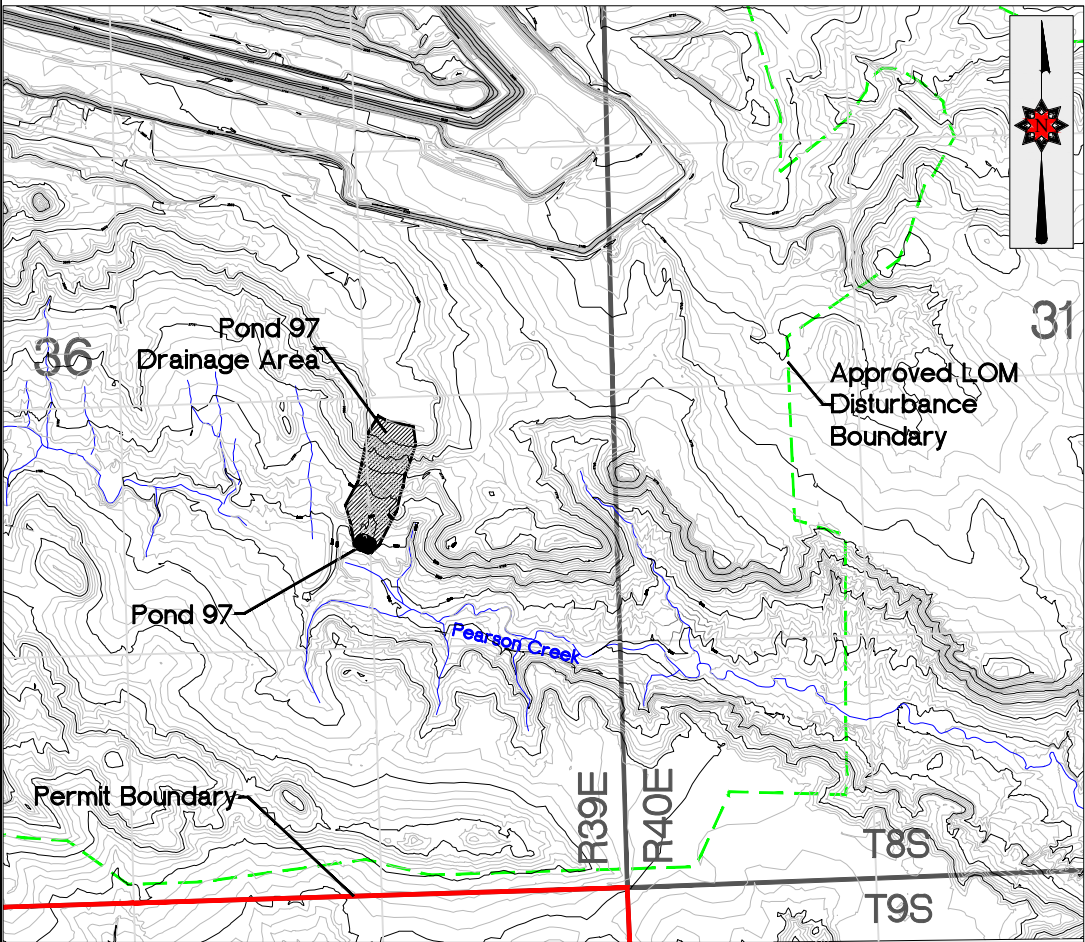
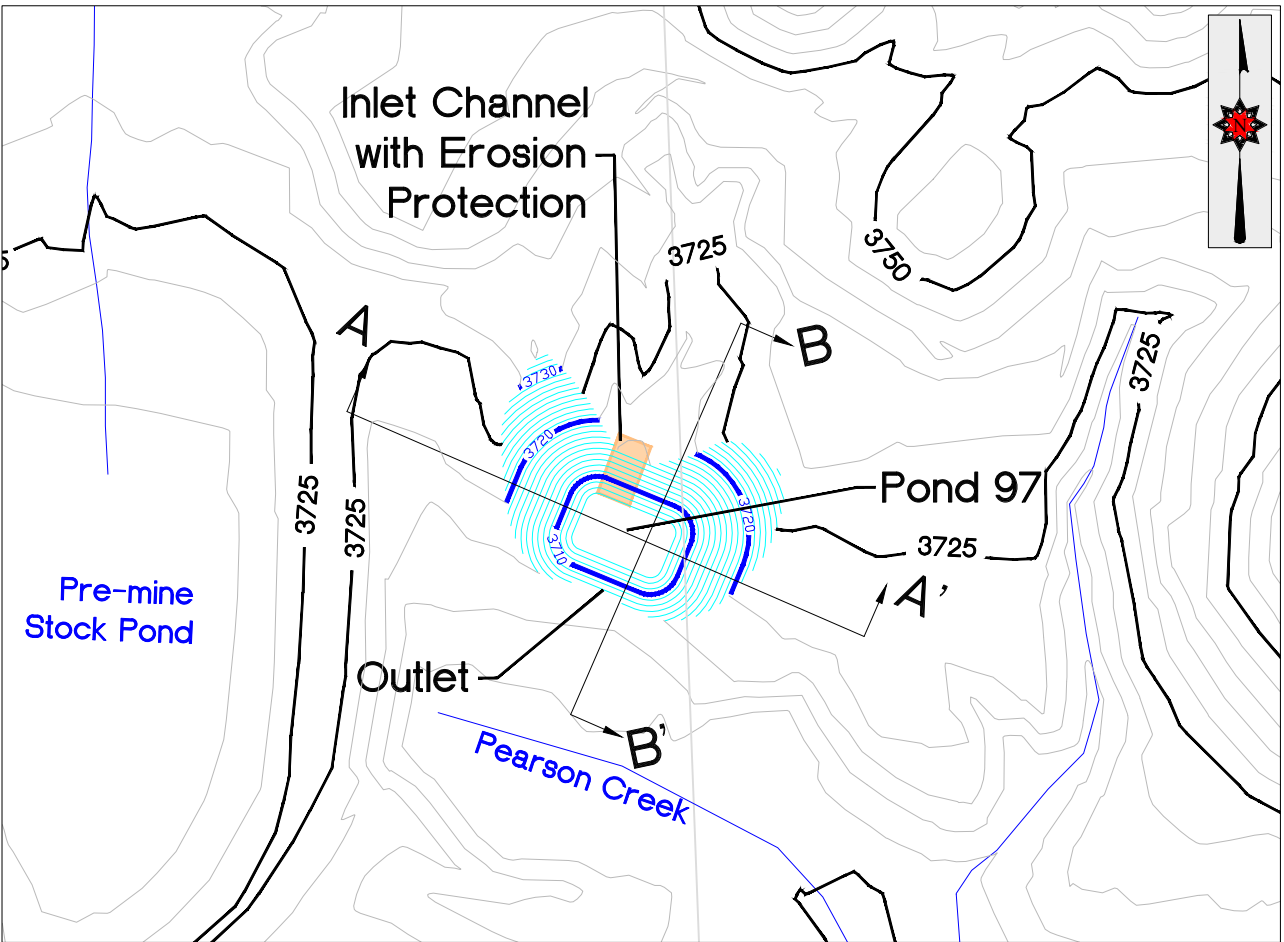




LOCATION MAP

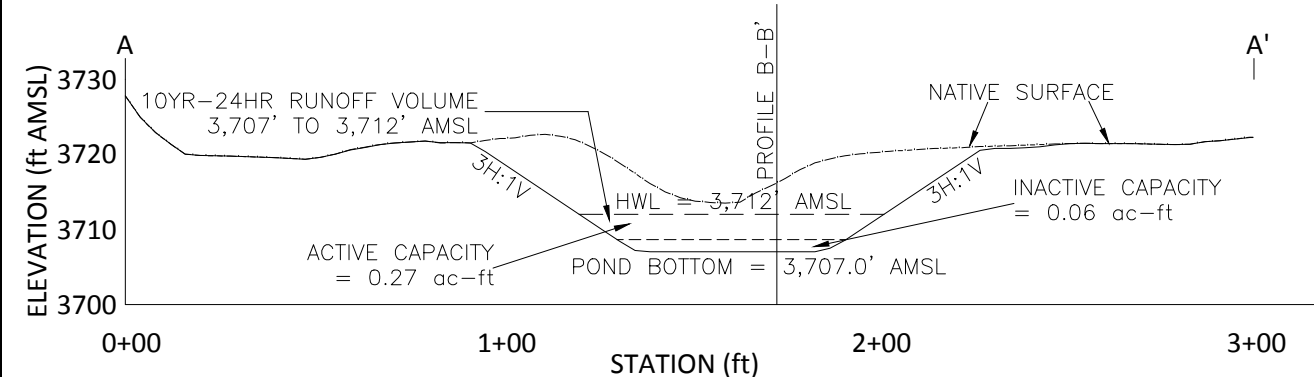
SCALE: 1" = 1,000', C.I. = 5'

POND IS LOCATED PRIMARILY IN NWSE OF SECTION 36, T8S, R39E.



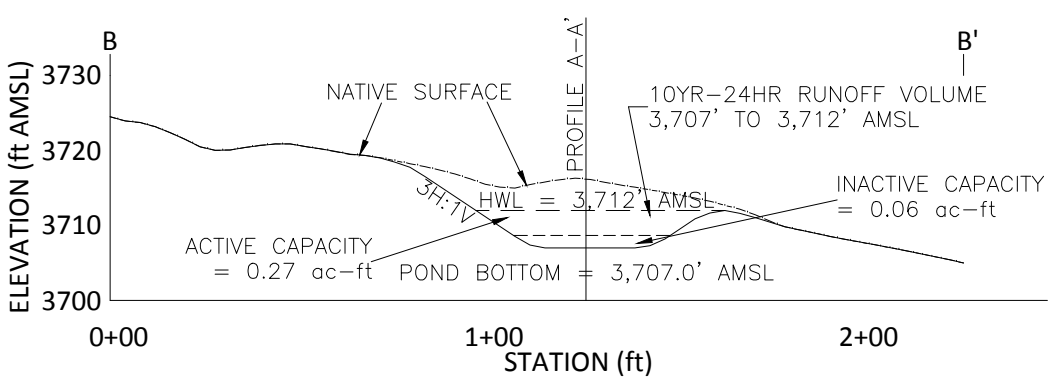
PLAN MAP

SCALE: 1" = 100', POND C.I. = 1', OUTER C.I. = 5'



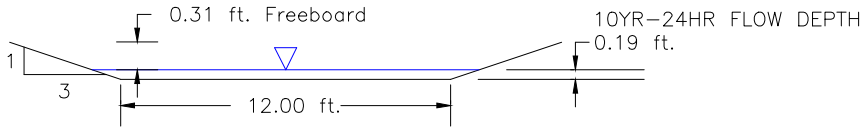
POND PROFILE A-A'

SCALE: H: 1" = 50', V: 1" = 25'



POND PROFILE B-B'

SCALE: H: 1" = 50', V: 1" = 25'



Trapezoidal Channel
Equal Side Slopes

Channel Lining: NAG Erosion Control Blanket P300 or Equivalent

INLET CHANNEL AND EROSION PROTECTION

SCALE: AS SHOWN

INLET CHANNEL HYDRAULICS		
CHANNEL TYPE	=	TRAPEZOIDAL, EQUAL SIDE SLOPES
BOTTOM WIDTH	=	12 ft
SIDE SLOPES	=	3H:1V
MAXIMUM SLOPE	=	33% (POND FACE SLOPE)
10YR-24HR PEAK FLOW	=	5.07 cfs
CHANNEL LINING	=	N.A.G. P300 EROSION CONTROL BLANKET (PERMANENT) WITH VEGETATION
RETARDANCE CLASS	=	C
VEGETATION TYPE	=	BUNCH TYPE
VEGETATION DENSITY	=	FAIR (50-75%)
SOIL TYPE	=	SILT LOAM
VELOCITY	=	2.1 ft/s
NORMAL DEPTH	=	0.19 ft
MANNING'S N	=	0.131
PERMISSIBLE SHEAR STRESS	=	8 lbs/ft ²
CALCULATED SHEAR STRESS	=	3.96 lbs/ft ²

AREA-ELEVATION-CAPACITY TABLE				
ELEVATION (FT AMSL)	AREA (ACRES)	INCREMENTAL CAPACITY (ACRE-FEET)	CUMULATIVE CAPACITY (ACRE-FEET)	USE
3,707.00	0.00		0.00	INACTIVE CAPACITY VOLUME = 0.06 AC-FT.
		0.03		
3,708.00	0.05		0.03	sediment storage
		0.04		
3,708.65	0.06		0.06	
		0.02		
3,709.00	0.06		0.08	ACTIVE CAPACITY VOLUME = 0.27 AC-FT.
		0.07		
3,710.00	0.08		0.15	10-YEAR / 24-HOUR RUNOFF VOLUME = 0.27 AC-FT.
		0.08		
3,711.00	0.09		0.24	
		0.10		
3,712.00	0.11		0.33	
HIGH WATER LINE = 3,712.00 FT. AMSL, TOTAL CAPACITY = 0.33 AC-FT.				

POND 97 DRAINAGE AREA DATA

TOTAL DRAINAGE AREA	=	3.1 acres
LONGEST WATERCOURSE	=	715 ft
AVERAGE LAND SLOPE	=	24.34%
CURVE NUMBER	=	87 (Disturbed Mine Land)
SOILS	=	Hydrologic Soils Group C
TIME OF CONCENTRATION	=	0.065 Hours

RUNOFF ESTIMATE TO POND 97

RAINFALL DISTRIBUTION	=	SCS TYPE II
PRECIPITATION (10YR-24HR)	=	2.19 in
PEAK Q (10YR-24HR)	=	5.07 cfs
VOLUME (10YR-24HR)	=	0.27 ac-ft
DESIGN METHOD	=	SCS RUNOFF CURVE NUMBER METHOD AND SCS GRAPHICAL PEAK DISCHARGE METHOD (NRCS TR-55 METHOD)

POND 97 DESIGN CAPACITY

SEDIMENT CAPACITY (0.02 ac-ft per acre)	=	0.06 ac-ft
10YR-24HR RUNOFF VOLUME	=	0.27 ac-ft
TOTAL DESIGN CAPACITY (MINIMUM)	=	0.33 ac-ft

CERTIFICATE OF ENGINEER

I, Eric M. Detmer, hereby certify that this map and drawings were prepared by myself or under my direct supervision and that they correctly represent the facilities and conditions described in the accompanying application.



ERIC M. DETMER, P.E. No. 11396

		SPRING CREEK MINE P.O. BOX 67, DECKER, MT 59025 PHONE: (406) 757-2581	
DATE	REVISION	Sediment Control Pond 97 Design	
BY			
DESIGN	EMD	DRAWN	EMD
SCALE	As Shown	CONTOUR INTERVAL	As Shown
DATE	11/17	SHEET	1 OF 1
FILE NUMBER	MR236\Pond 97.dwg		