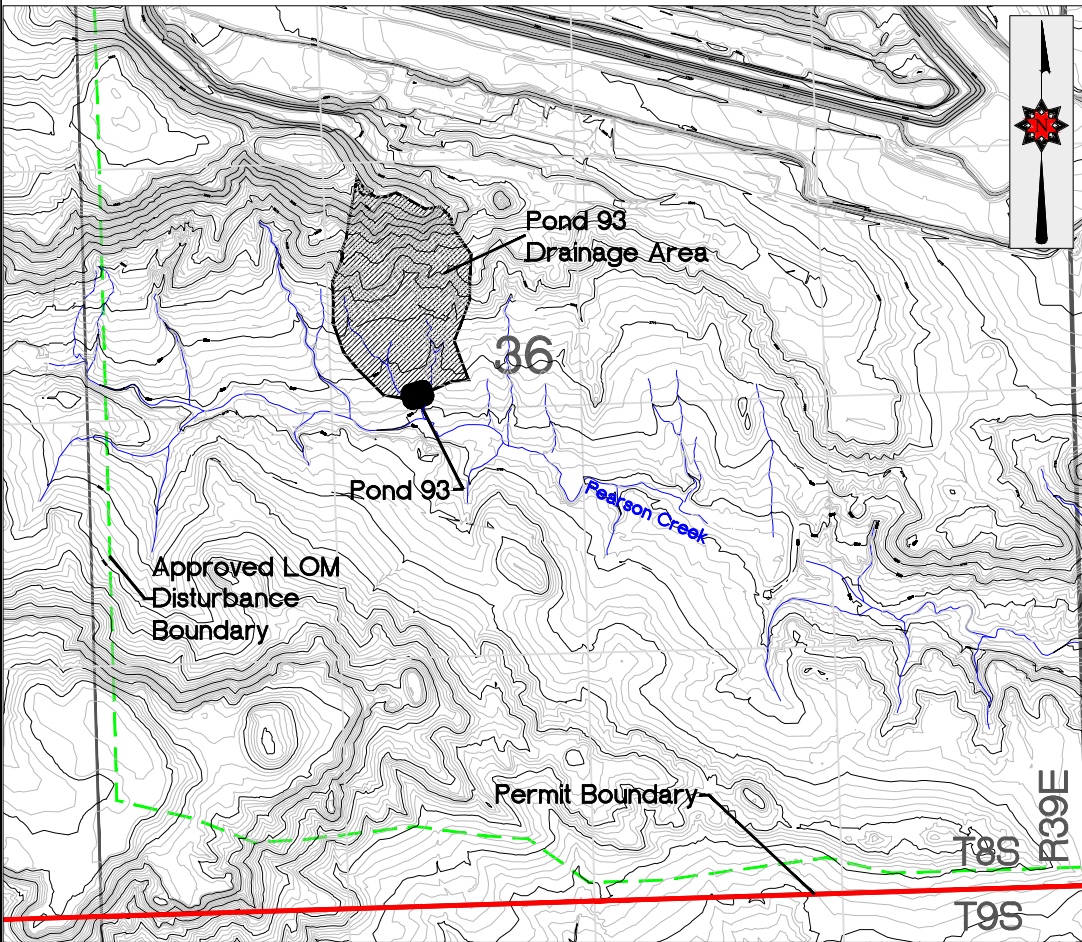
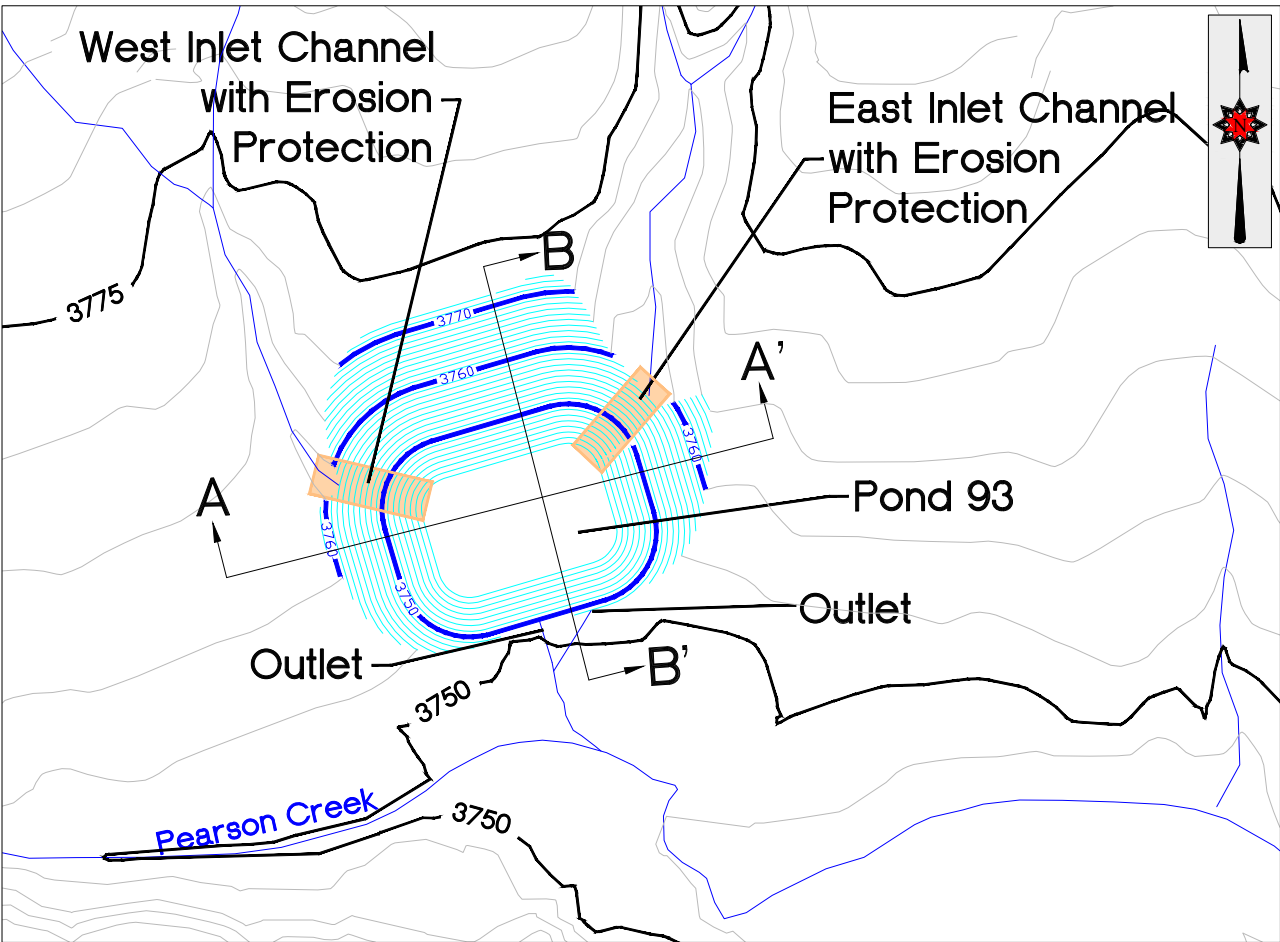




LOCATION MAP

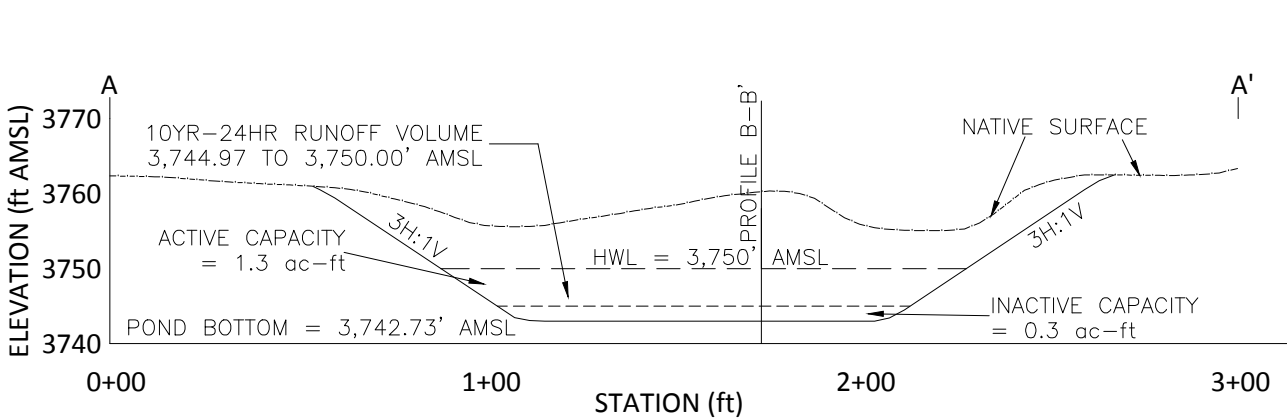
SCALE: 1" = 1,000', C.I. = 5'

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



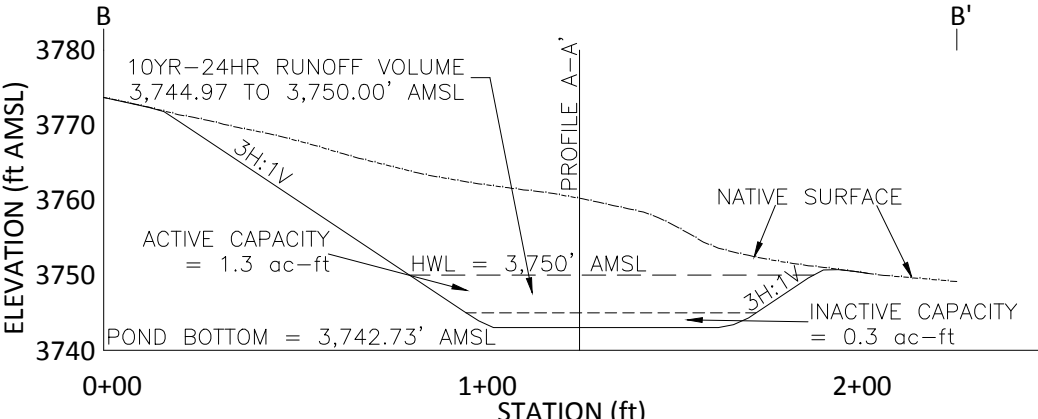
PLAN MAP

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



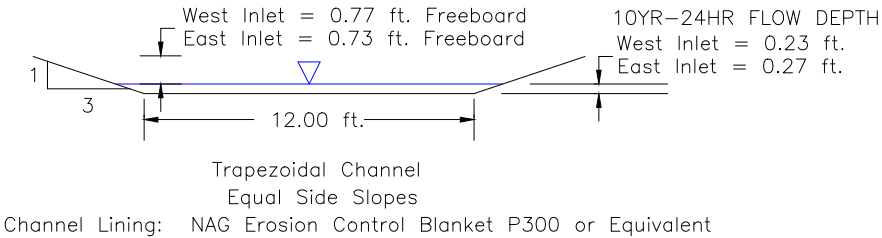
POND PROFILE A-A'

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



POND PROFILE B-B'

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



INLET CHANNEL AND EROSION PROTECTION

SCALE: AS SHOWN

INLET CHANNEL HYDRAULICS

CHANNEL TYPE	=	TRAPEZOIDAL, EQUAL SIDE SLOPES	RETARDANCE CLASS	=	C
BOTTOM WIDTH	=	12 ft	VEGETATION TYPE	=	BUNCH TYPE
SIDE SLOPES	=	3H:1V	VEGETATION DENSITY	=	FAIR (50-75%)
MAXIMUM SLOPE	=	33% (POND FACE SLOPE)	SOIL TYPE	=	SILT LOAM
10YR-24HR PEAK FLOW	=	West Inlet = 9.3 cfs, East Inlet = 14.9 cfs	VELOCITY	=	West Inlet = 3.2 ft/s, East Inlet = 4.3 ft/s
CHANNEL LINING	=	N.A.G. P300 EROSION CONTROL BLANKET (PERMANENT) WITH VEGETATION	NORMAL DEPTH	=	West Inlet = 0.23 ft, East Inlet = 0.27 ft
			MANNING'S N	=	West Inlet = 0.098, East Inlet = 0.08
			PERMISSIBLE SHEAR STRESS	=	8 lbs/ft ²
			CALCULATED SHEAR STRESS	=	West Inlet = 4.8 lbs/ft ² , East Inlet = 5.59 lbs/ft ²

AREA-ELEVATION-CAPACITY TABLE

ELEVATION (FT AMSL)	AREA (ACRES)	INCREMENTAL CAPACITY (ACRE-FEET)	CUMULATIVE CAPACITY (ACRE-FEET)	USE
3,742.73	0.00		0.0	INACTIVE CAPACITY VOLUME = 0.3 AC-FT.
3,743.73	0.16	0.1	0.1	sediment storage
3,744.73	0.18	0.2	0.3	
3,744.97	0.19	0.0	0.3	
3,745.73	0.21	0.2	0.4	
3,746.73	0.23	0.2	0.7	ACTIVE CAPACITY VOLUME = 1.3 AC-FT.
3,747.73	0.26	0.3	0.9	10-YEAR / 24-HOUR RUNOFF VOLUME = 1.3 AC-FT.
3,748.73	0.29	0.3	1.2	
3,749.73	0.32	0.1	1.5	
3,750.00	0.32		1.6	

HIGH WATER LINE = 3,750.00 FT. AMSL, TOTAL CAPACITY = 1.6 AC-FT.

POND 93 DRAINAGE AREA DATA

TOTAL DRAINAGE AREA	=	14.8 acres
LONGEST WATERCOURSE	=	1,125 ft
AVERAGE LAND SLOPE	=	28.69%
CURVE NUMBER	=	87 (Disturbed Mine Land)
SOILS	=	Hydrologic Soils Group C
TIME OF CONCENTRATION	=	0.086 Hours

RUNOFF ESTIMATE TO POND 93

RAINFALL DISTRIBUTION	=	SCS TYPE II
PRECIPITATION (10YR-24HR)	=	2.19 in
PEAK Q (10YR-24HR)	=	24.2 cfs
VOLUME (10YR-24HR)	=	1.3 ac-ft
DESIGN METHOD	=	SCS RUNOFF CURVE NUMBER METHOD AND SCS GRAPHICAL PEAK DISCHARGE METHOD (NRCS TR-55 METHOD)

POND 93 DESIGN CAPACITY

SEDIMENT CAPACITY (0.02 ac-ft per acre)	=	0.3 ac-ft
10YR-24HR RUNOFF VOLUME	=	1.3 ac-ft
TOTAL DESIGN (MINIMUM) CAPACITY	=	1.6 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 93 Design	
BY			
DESIGN	EMD	DRAWN	EMD
SCALE	As Shown	CONTOUR INTERVAL	As Shown
DATE	11/17	SHEET	1 OF 1
FILE NUMBER	MR236\Pond 93.dwg		