

ESTIMATED EARTHWORK QUANTITIES		
PAD TOPSOIL (6" DEPTH)	3,720 C.Y.	
ROAD TOPSOIL (6" DEPTH)	180 C.Y.	
PAD EXCAVATION	19,050 C.Y.	
ROAD EXCAVATION	210 C.Y.	
PAD EMBANKMENT (10% SHRINK ASSUMED)	15,940 C.Y.	
ROAD EMBANKMENT (10% SHRINK ASSUMED)	460 C.Y.	
WASTE MATERIAL	9,800 C.Y.	
TOTAL EARTHWORK VOLUME	23,160 C.Y.	

WELL SITE DESIGN AND CONSTRUCTION NOTES:

1. The graded well pad elevation was selected to place the drilling rig on cut earth to approximate balance of excavation to embankment and provide a stockpile of earth for frac pit reclamation and road embankment.
2. The approximate volume of the frac pit is 9,280 C.Y. Material for frac pit reclamation will be obtained from the waste material stockpile.
3. Within the computed catch lines, the area of the proposed pad is 4.61 acres and the waste material stockpile is 0.61 acres. This area does not include the area of the topsoil stockpile nor the small additional area required for grading machine travel. The estimated area of the disturbance limits as shown is 6.24 acres. The boundary for potential BMP installations is at a 10 foot width outside the disturbance limit. The area enclosed is 0.50 acres.
4. The area of the road within the computed catch lines is 0.22 acres.
5. The well will be drilled with a semi-closed loop mud system. During the drilling of the well, the cuttings will be placed in the temporary cuttings storage area shown. This area will be constructed on the pad surface elevation with dikes of a 5-foot height. The interior of the area and berm inslopes will be lined with a liner meeting BLM specifications.
6. Immediately after completion of drilling of the proposed well, the cuttings will be removed from the temporary storage area and buried in the permanent storage area shown for that well. This area will be excavated with nearly vertical slopes to a 10-foot depth. A liner meeting BLM specifications will be installed in the excavation. The cuttings will then be placed in the excavation. The liner will be closed over the cuttings and covered with earth. This will be a short duration operation requiring perhaps one day of work.

WELL PAD CUT-FILL TABLE						
POINT	CATCH POINT			HINGE PT.	CUT	SLOPE
NO.	STATION	OFFSET	ELEV.	ELEV.	FILL(+)	H:V
1	-0+18.60	-149.00	5679.00	5672.80	-6.20	3:1
2	0+25.00	-188.97	5677.79	5672.80	-4.99	3:1
3	1+75.00	-182.53	5675.64	5672.80	-2.84	3:1
4	3+00.00	-174.81	5673.07	5672.80	-0.27	3:1
5	5+05.00	-178.98	5669.48	5672.80	3.32	1.5:1
6	5+30.00	-149.00	5668.46	5672.80	4.34	1.5:1

