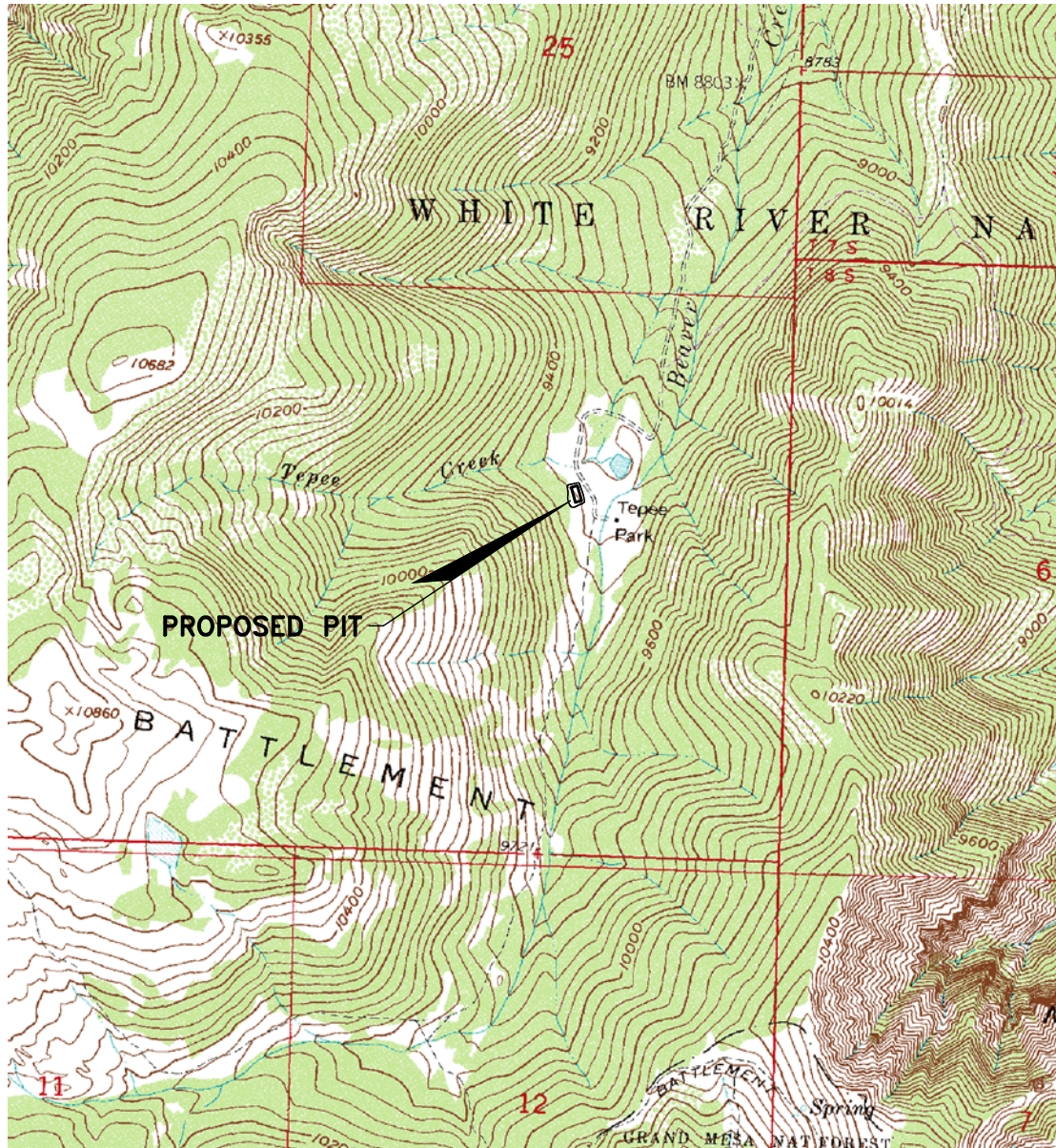


# BLACK DIAMOND MINERALS, LLC.

## TEPEE PARK PIT

SECTION 36,  
T7S, R94W, 6th P.M.  
GARFIELD COUNTY, COLORADO



SCALE 1"=2000'



85 SOUTH 200 EAST  
VERNAL, UTAH 84078  
PHONE: (435) 789-1017

DATE: 8-25-08  
DRAWN BY: D.G.W.  
REVISED: 10-8-08

SHEET 1 OF 7



TEPEE PARK PIT

NE COP SEC 36, 146.27' 07" E 56.88' P.M.

TO 5 MI RAD.  
FILE WATER DRAW  
N00°38'18"E  
3520.11'

EXISTING ROAD

3:1 SLOPE

S17°26'07"E

170.00'

N17°26'01"  
134.00'

S18°04'36"E

1:1 SLOPE

~~OBSERVATION  
SUMP~~

15' WIDE BENCH

DITCH (1% TYP:)

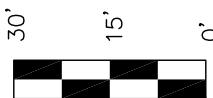
1.5:1 SLOPE

BASIS OF BEARINGS IS A LINE FROM THE NORTHEAST CORNER OF SECTION 36, T7S, R94W, 6th P.M. TO THE SOUTHWEST CLOSING CORNER OF SECTION 31, T7S, R93W, 6th P.M. WHICH FROM G.P.S. OBSERVATION BEARS N00°35'27"W.



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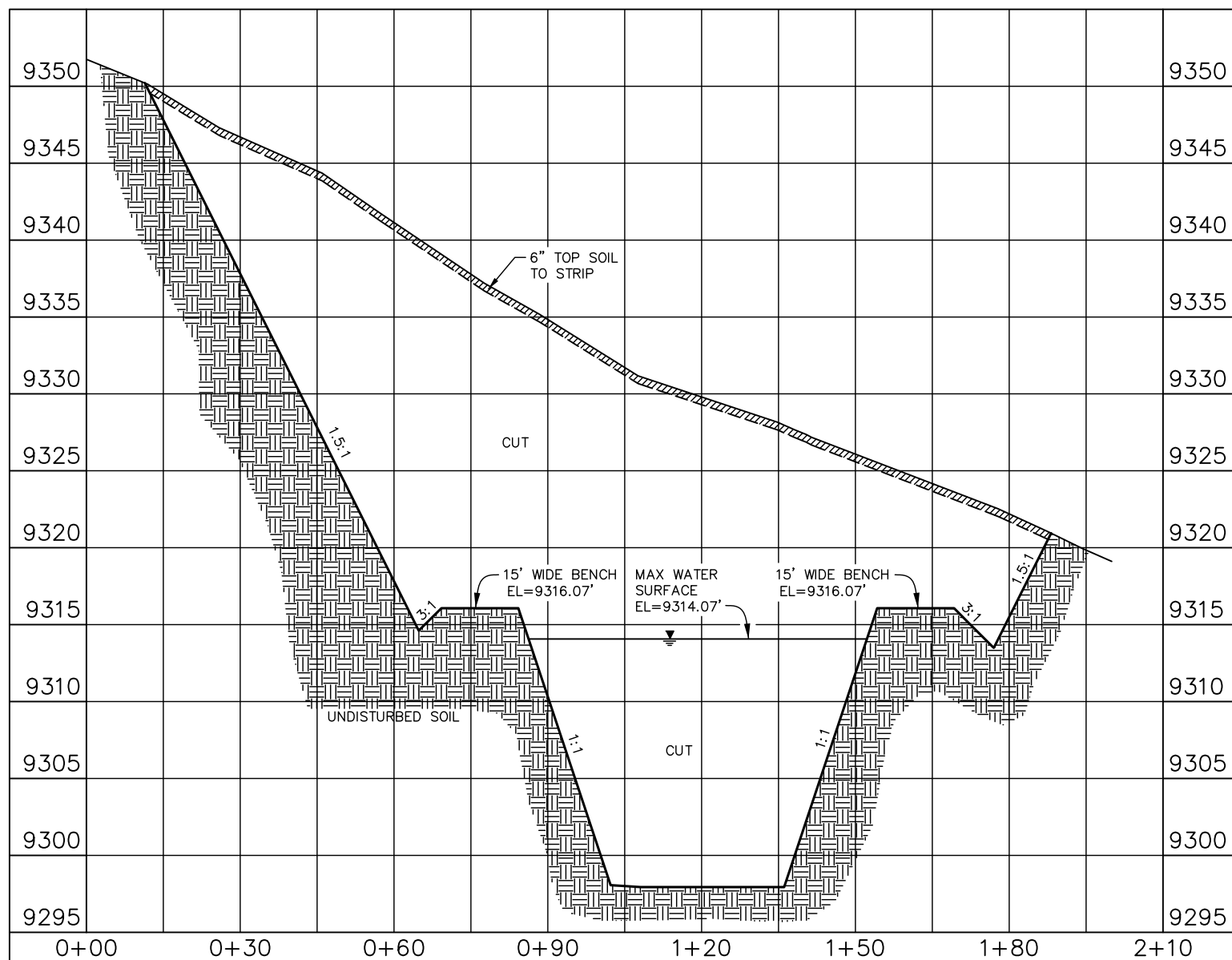
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SHEET 2 OF 7

**TEPEE PARK PIT**

SECTION 36,  
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GARFIELD COUNTY, COLORADO



SECTION C-C

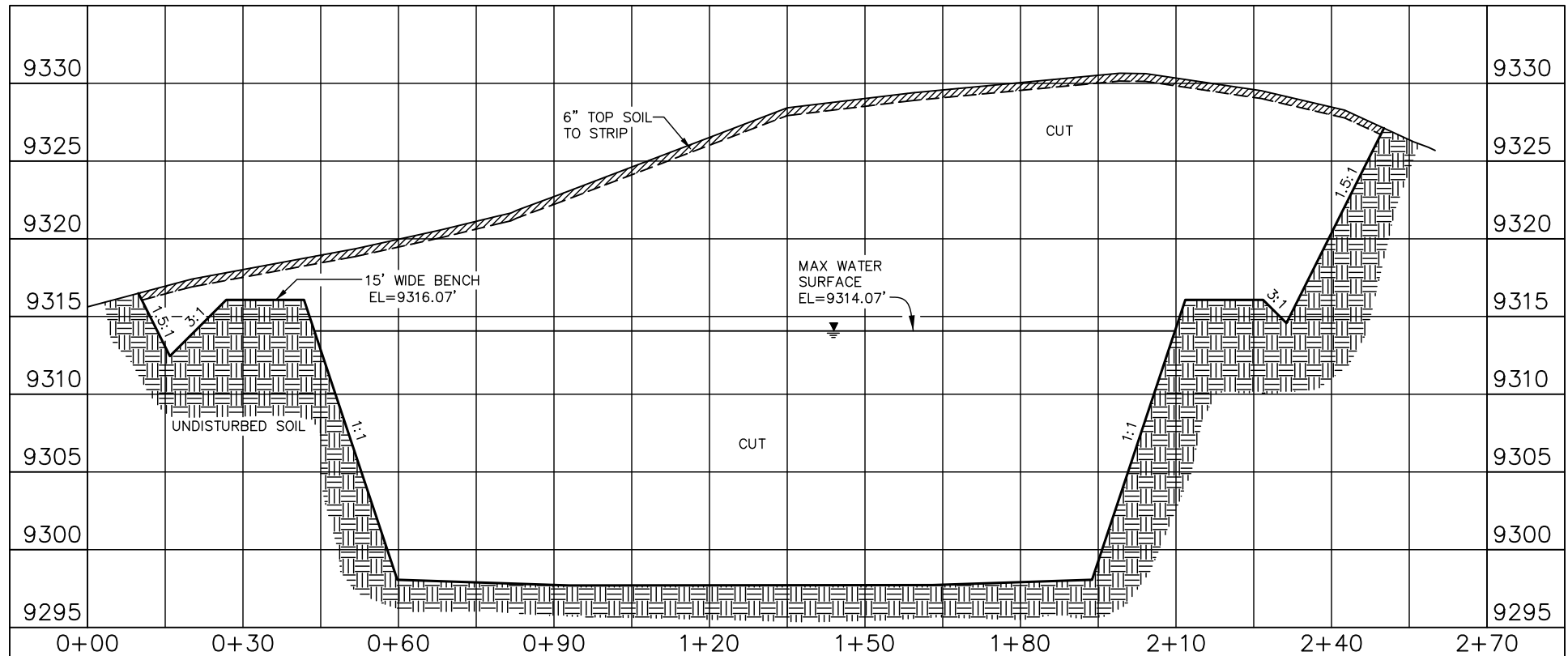


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**TEPEE PARK PIT**

SECTION 36,  
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GARFIELD COUNTY, COLORADO



SECTION D-D

DISTURBANCE AREA (FOOTPRINT)

0.878 ACRES

EARTHWORK VOLUMES

RAW CUT = 17,975 CU. YDS.  
 FILL = 40 CU. YDS.  
 FILL+10% = 44 CU. YDS.  
 TOP SOIL = 708 CU. YDS.  
 Top soil for footprint area within  
 the disturbance limits (6" depth)

PIT CHARACTERISTICS

INSIDE TOP 70' X 170'  
 INSIDE DIKE SLOPE 1:1  
 OUTSIDE DIKE SLOPE 1.5:1  
 MAX. DEPTH OF PIT 18.75'  
 MAX LIQUID DEPTH 16.75'  
 FREEBOARD DEPTH 2'

TOTAL PIT VOLUME  
 5,384 cyd, 3.34 acre feet, 25,889 BBL  
 POND VOLUME EXCLUDING FREEBOARD  
 4,537 cyd, 2.81 acre feet, 21,819 BBL  
 SURFACE AREA AT MAX. LIQUID DEPTH  
 10,956 SQUARE FEET (0.252 ACRES)

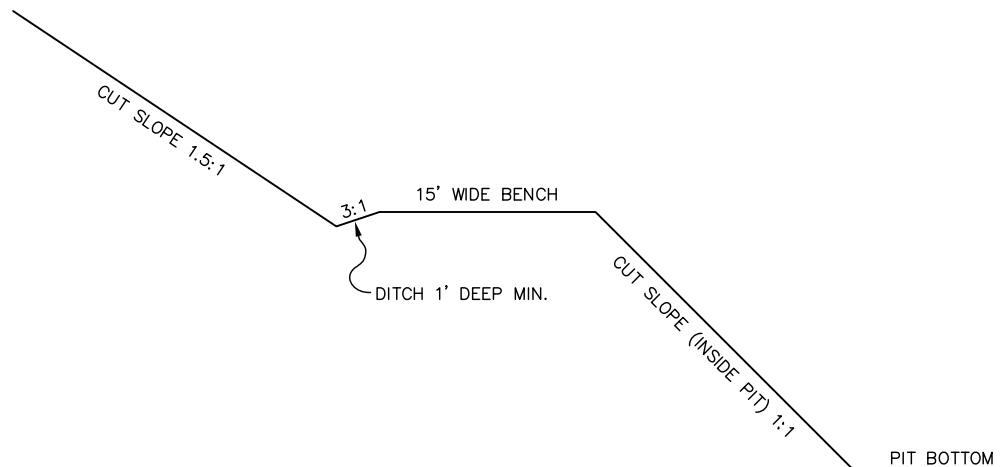


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**TEPEE PARK PIT**

SECTION 36,  
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GARFIELD COUNTY, COLORADO

**TYPICAL PIT SECTION**

NO SCALE

**CONTROL POINTS & DESIGN CORNERS**

NORTHING	EASTING	ELEVATION	DESCRIPTION	APPROXIMATE CUT / FILL
100000.00	100000.00	5546.19	B.M. 5544	
58738.34	83280.40	7183.36	C.P. #20121	
35502.43	82081.56	9341.79	C.P.#20136	
35606.92	82247.81	9315.04	C.P.#20236	
41407.51	84108.92	8652.48	C.P.#20000	
48390.96	84318.57	8248.01	NE 24 7-94	
45756.15	84347.84	8465.33	E 1/4 24 7-94	
43110.91	84349.83	8476.72	NE 25 7-94	
40474.50	79027.57	10222.54	W 1/4 25-7-94	
40460.91	84347.44	8766.50	E 1/4 25-7-94	
37818.29	84342.20	9356.75	SE 25-7-94	
37778.74	79030.56	10212.03	SW W.C. 25-7-94	
40323.60	84346.74	8789.19	NW 31-7-93	
42972.04	84346.49	8476.83	W 1/4 30-7-93	
38255.82	84337.69	9207.31	SW CC SEC 31-7-93	
35682.19	82031.24	9316.07	PIT COR N	Cut 6.48
35712.15	82126.64	9316.07	PIT COR O	Fill 2.37
35521.34	82186.57	9316.07	PIT COR P	Cut 4.98
35491.38	82091.16	9316.07	PIT COR Q	Cut 23.20
35672.37	82050.04	9316.07	PIT COR R	Cut 5.59
35693.34	82116.83	9316.07	PIT COR S	Fill 0.00
35531.16	82167.76	9316.07	PIT COR T	Cut 8.94
35510.18	82100.98	9316.07	PIT COR U	Cut 21.03
35670.78	82105.05	9298.07	PIT COR V	Cut 20.43
35660.59	82072.61	9298.07	PIT COR W	Cut 23.48
35596.89	82093.40	9297.32	PIT COR X	Cut 31.77
35532.75	82112.76	9298.07	PIT COR Y	Cut 34.90
35542.93	82145.20	9298.07	PIT COR Z	Cut 29.80
35718.35	82137.73	9311.92	DITCH COR AA	Cut 0.50
35523.24	82192.64	9313.95	DITCH COR BB	Cut 6.24
35515.56	82188.39	9314.05	DITCH COR CC	Cut 6.44
35488.45	82092.08	9315.05	DITCH COR DD	Cut 23.96
35490.46	82088.24	9315.05	DITCH COR EE	Cut 24.91
35679.47	82022.60	9313.05	DITCH COR FF	Cut 10.44
35691.12	82028.43	9312.95	DITCH COR GG	Cut 8.84
35725.46	82127.31	9311.90	DITCH COR HH	Cut 0.52

ELEVATIONS SHOWN FOR PIT AND DITCH ARE DESIGN GRADE.  
CUT / FILL DISTANCES ARE FROM EXISTING GROUND.



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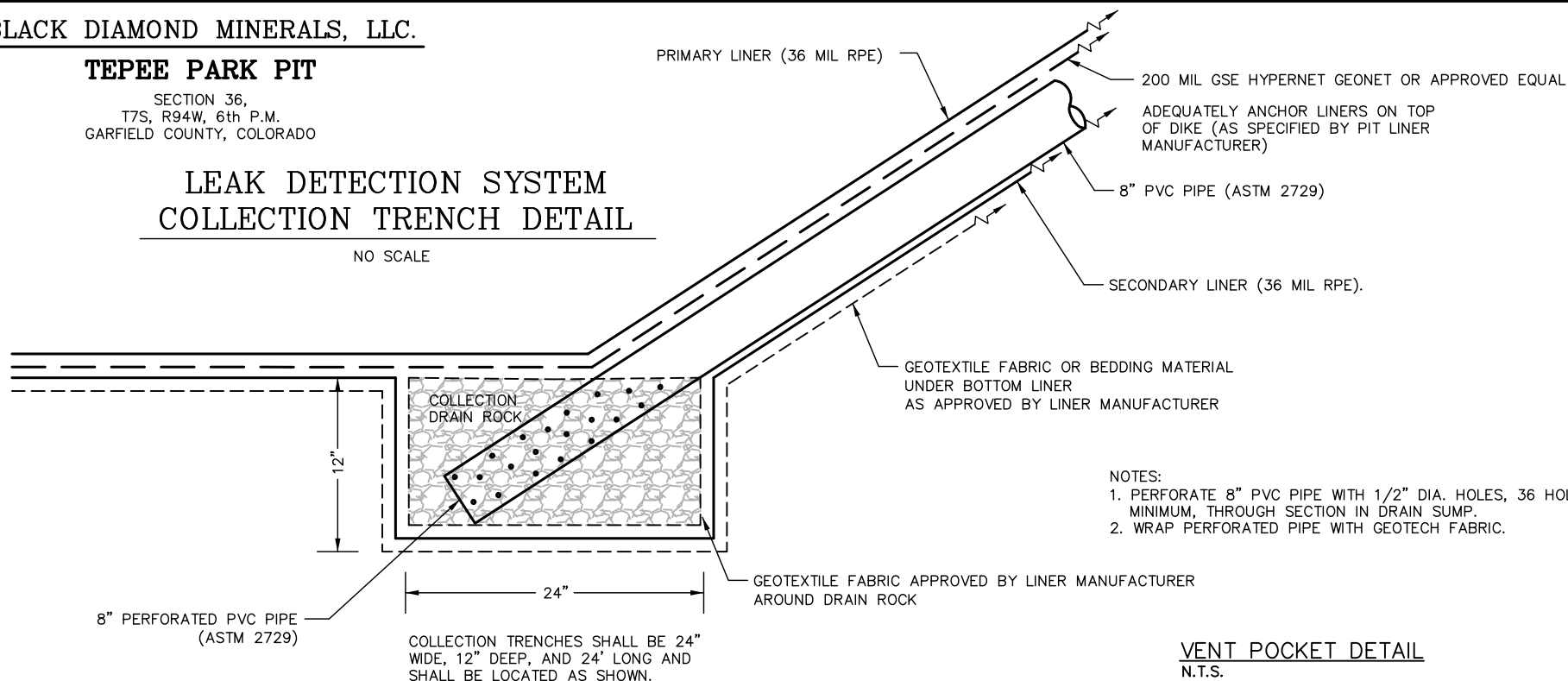
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# TEPEE PARK PIT

SECTION 36,  
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GARFIELD COUNTY, COLORADO

## LEAK DETECTION SYSTEM COLLECTION TRENCH DETAIL

NO SCALE



- NOTES:
1. PERFORATE 8" PVC PIPE WITH 1/2" DIA. HOLES, 36 HOLES MINIMUM, THROUGH SECTION IN DRAIN SUMP.
  2. WRAP PERFORATED PIPE WITH GEOTECH FABRIC.

## GENERAL NOTES

PIT LINERS SHALL BE 36 MIL RPE (REINFORCED POLYPROPYLENE).

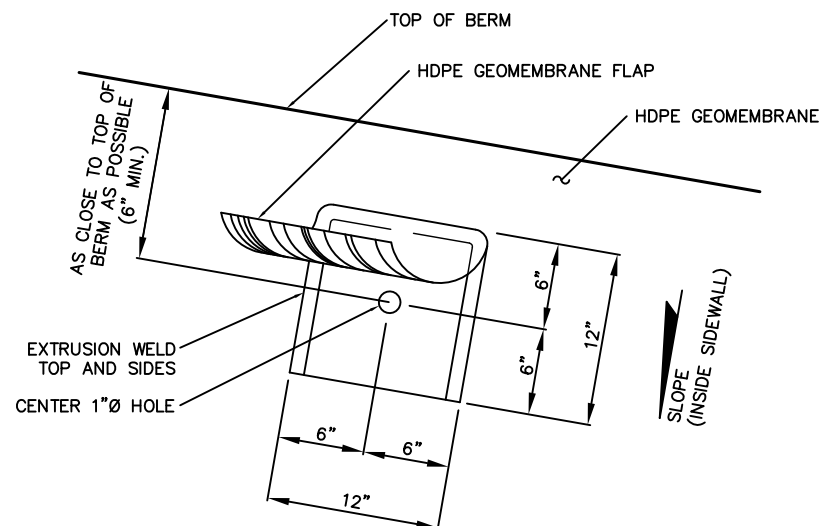
PIT LINERS SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS. PIT SIDES AND BOTTOM SHALL BE FREE FROM SHARP EDGES CAPABLE OF PUNCTURING LINER MATERIAL. GEOTEXTILE FABRIC MAY BE USED AS BEDDING MATERIAL. A SMOOTH BEDDING SURFACE SHALL BE PROVIDED PRIOR TO LINER INSTALLATION.

THE LEAK DETECTION PIPE SHALL BE A PERFORATED PVC PIPE WITHIN THE COLLECTION AREA. THE OBSERVATION SUMP SHALL BE AN 8" DIAMETER PVC PIPE WITH END CAP.

POROUS MATERIAL (DRAIN ROCK) IN THE COLLECTION AREA SHALL BE 1/2" TO 1 1/2" CLEAN WASHED GRAVEL MATERIAL. MATERIAL DOES NOT NEED TO BE WELL GRADED BUT THE OVERALL MATERIAL SIZE MUST FALL WITHIN THE SPECIFIED RANGE. DRAIN ROCK SHALL BE FREE OF SHARP EDGES CAPABLE OF PUNCTURING LINER, OR NON-WOVEN GEOTEXTILE FABRIC (AS APPROVED BY LINER MANUFACTURER) SHALL BE USED TO PROTECT LINER. LINER MANUFACTURER SHALL APPROVE SUBGRADE PRIOR TO INSTALLATION OF LINER

KNOTTED ROPE OR OTHER EMERGENCY EGRESS METHOD SHALL BE INSTALLED AROUND THE PERIMETER OF THE PIT LOCATED AND SPACED AS APPROVED BY OWNER.

## VENT POCKET DETAIL N.T.S.



"SHIRT POCKET" VENTS SHALL BE INSTALLED THROUGH BOTH PRIMARY AND SECONDARY LINERS LOCATED AT 50' O.C. MAX. ALONG THE TOP INSIDE PERIMETER OF THE PONDS.

Plan view of a rectangular pond with various slopes, benches, and structural features. The pond is bounded by a chainlink fence. Key features include:

- Slopes:**
  - Top: 3:1 SLOPE
  - Right: 1:1 SLOPE
  - Bottom: 1.5:1 SLOPE
  - Left: 3:1 SLOPE
  - Internal: 1:1 SLOPE (for the central area)
  - Internal: 1% SLOPE (for the two side areas)
- Benches:**
  - 15' WIDE BENCH (along the bottom edge)
  - 15' (along the top edge)
- Structural Features:**
  - 8" PVC PIPE (BETWEEN LINERS) (vertical line in the center)
  - OBSERVATION SUMP (at the bottom of the 8" PVC pipe)
- Points and Labels:**
  - Top: AA, BB, CC, DD
  - Right: EE, FF, GG, HH
  - Bottom: II, JJ, KK, LL, MM, NN, OO, PP, QQ, RR, SS, TT, UU, VV, WW, XX, YY, ZZ
  - Internal: AA, BB, CC, DD, EE, FF, GG, HH, II, JJ, KK, LL, MM, NN, OO, PP, QQ, RR, SS, TT, UU, VV, WW, XX, YY, ZZ
- Other Labels:**
  - CHAINLINK FENCE
  - DITCH (1% TYP.)



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