

From ⁽¹⁾ Disposal Facility
Class II/III

III. Site Characteristics

A. Hydrologic Features

1. The nearest running water is the Animas River which is approximately 1-1/2 miles North. The State Engineers Office in Albuquerque, NM was consulted as to the location of the nearest water well. There is a well reported in the SE4, SE4 of Section 34-T30N-R12W. The well encountered water at 25'. The total depth of the well is 107'. A copy of the well record is attached. The well is used for household and livestock watering purposes. A field inspection of the reported quarter section revealed that the well is either abandoned or mis-located in the records.
2. This information is not available as there is no ground water reported within 1 mile of the facility.
3. The flow direction of ground water most likely to be affected by any leak is Northwesterly based upon topography.
4. A water sample can not be obtained as mentioned above therefore no analysis is available.

B. Geologic Description of Pit Site

1. The pit site rests on a paleoerosional surface as evidenced by the attached drillers log. Nine test holes were drilled to determine the soil mechanics. The soil type ranges from a clay/sand mixture to silt/sand mixture and cobbles/boulders.
2. The name and depth of the most shallow aquifer is unknown.
3. Not available
4. Not available.

C. Flood Protection

1. The flooding potential at the pit site with respect to major precipitation and/or run off is minimal at best as the pond will be maintained with at least a 1-1/2' free-board. The facility is located on top of a broad ridge well out of any established water courses. In any event drainage away from the ponds will be accomplished by diversion ditches cut on the uphill side of the facility.
2. The pond is well out of the 100 year flood plain.
3. The outside of the site will be checked after each major rainfall. The OCD will be notified of any significant erosion.

IV. In as much as these ponds are to be synthetically lined no further information is necessary at this time.

V. General Construction Requirements

- A. Those ponds are out of any water courses.
- B. The natural evaporative capacity for each pond is approximately 175 BWPD. This is based on a net evaporation rate of 48"/year and 90,000 ft² surface area. As mentioned earlier

2. A sign at least 12" X 24" with 2" lettering will be placed at the facility entrance and will identify the owner/operator, location and emergency phone numbers.

H.

1. The leak detection sumps will be checked for leaks weekly
2. The outside of the berms will be maintained so as to prevent erosion. After each rain the pond perimeters will be walked to inspect for wash outs.

I. Contingency Plan

As mentioned earlier if a leak is detected the OCD will be notified within one working day. The sump will be continually pumped into the pit that is leaking or into a separate pit. The pond that is leaking will be drained so that the water is below the liner tear and the liner repaired. The pit will be placed back into operation.

Each load will be tested for H₂S. If H₂S is detected that load will be isolated and the operator will determine if the water is to be removed or if STWD will treat the load. If STWD treats the load sufficient chlorine will be added so that residual chlorine is present prior to the water being drained into the skimmer pond.

The ponds will be maintained in an aerobic state. H₂S should not be a problem as each pond has three systems in which to keep the pond aerobic.

Drillers Log

Hole 1	SE Corner Pond 1	
	<u>Depth</u>	<u>Description</u>
	0-2	Red brown clay/sand; 50/50, topsoil
	3-6	Tan Silt, powdery, 25% Clay
	6-9	Med. Brown Silt, 15% Clay grading to siltstone, medium hard.
	9-10	Light gray sandstone, Med grain, Subround, 30% Clay, Poor sorting
Hole 2	SW Corner Pond 1	
	<u>Depth</u>	<u>Description</u>
	0-3	Red brown clay/sand; 50/50, Topsoil
	3-4	Light brown clay, 40% very fine grain sand
	4-6	Light grey silt/sand with 20% Clay
	6-9	Light grey-tan sandstone, medium grain subround, poor sorting, 20-30% clay hard
Hole 3	NW Corner Pond 1	
	<u>Depth</u>	<u>Description</u>
	0-2	Red brown clay, 5-10% silt
	2-3	Red brown clay, 10% sand, 15% silt
	3-4	Light grey to tan silt, 10% sand medium hard grading to siltstone.
	4-10	Light grey-tan sand, fine grain, 15% silt, 10% clay medium hard.
	10-26.5	Tan sand, medium grain to sub coarse grain, subangular to subround, poor sorting, very friable 0-20% silt

Drillers Log Continued

Hole 4	60'NE of SW Corner of Pond 2	
<u>Depth</u>	<u>Description</u>	
0-2	Red brown clay, 10% sand	
2-7	Tan sand, unconsolidated, 15-20% silt, very fine grain, fair sorting	
7-8	Light grey silt, 25-35% Sand, 35% Clay	
8-12	Tan sandstone, fine to meduim grain, fair sorting, subround 25% silt, 10% clay, moderately friable. Auger refusal at 12!	
Hole 5	SE Corner of Pond 2	
<u>Depth</u>	<u>Description</u>	
0-1	Red brown clay, 10% sand	
1-6	Light grey sand interbedded with red brwon clay, 50/50, mod cement with anhydrite. Sand is very fine grain and well rounded.	
6-7.5	Buff colored sand, very fine grain, well rounded, well sorted, 50% silt	
7.5-8	Tan sand, coarse grain, angular. Very fiabile, moderately cemented fair sorting	
8-10	Tan Sand, very fine grain, fair rounding, 25% silt, 25% Anhydrite	
10-10.5	Tan sand and clay 50/50	
10.5-13	Light brown sandstone, very fine grain, fair sorting, well rounded, 10% clay, hard	
Hole 6	SE Corner Pond 3	
<u>Depth</u>	<u>Description</u>	
0-4	Red brown clay, 10% sand	
4-8	Tan Silt	
8-12	Tan sand, very fine grain, subround, well sorted, 15% silt	
12-18	As above, fine grain, subangular	
18-20	Grey brown clay, 10% silt, powdery	
Hole 7	NW Corner Pond 2	
<u>Depth</u>	<u>Description</u>	
0-4	Red brown clay, 10% sand occassional gravel	
4-9	Light grey to buff silt, 20% sand, Anhydrite	
9-13	As above, tan	
13-17	Tan Sand, very fine grain, subround. fair sorting, 15% silt	
17-20	Grey brown clay, 10% silt, Powdery	

Drillers Log Continued

Hole 7 NW Corner Pond 2

<u>Depth</u>	<u>Description</u>
0-4	Red brown clay, 10% sand occasional gravel
4-9	Light grey to buff silt, 20% sand, Anhydrite
9-13	As above, tan
13-17	Tan Sand, very fine grain, subround. fair sorting, 15% silt
17-20	Grey brown clay, 10% silt, Powdery

Hole 8 NW Corner Pond 3

<u>Depth</u>	<u>Description</u>
0-2.5	Red brown clay, 15% sand
2.5-4	Tan sand mottled with red brown clay, 35%.
4.5-5.5	Buff silt, sand 40%, anhydrite 10%
5.5-8	Tan sand fine to medium grain, well sorted, fair rounding, 20% silt, trace anhydrite, occasional gravel 10%
8-12	Tan sand medium to coarse grain, subangular, poor sorting, 20% gravel, 10% silt
12-15	Grey brown clay, mottled with light grey sand and red brown clay
15-17	Cobbles/Boulders. Auger refusal at 17'

Hole 9 NE Corner Pond 3

<u>Depth</u>	<u>Description</u>
0-2	Dark Red brown clay, 10% sand
3-4	Red brown silt, 10% sand, 30% clay
4-12.5	Tan Sand, Fine grain, subround well sorted, 10-30% Clay, trace anhydrite
12.5-13	Brown Grey clay, mottled with light grey clay
13-15	Light grey clay
15-18	Cobbles/Boulders. Auger refusal at 18"

end