



- Soil Profile Test
- ⊕ Soil Profile Test With Percolation Test

PERCOLATION TEST RESULTS

10/04

Town of Commanche

W/2 NW/4 Sec.20 T3N R24E

<u>Lot</u>	<u>Hole Depth (in.)</u>	<u>Perc. Rate (min./in.)</u>
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8A	66	16
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10A	66	13
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14B	66	10
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East Commanche Sub.

E/2 NW/4 Sec.20 T3N R24 E

4B	66	24
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6D	66	16
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7C	66	13
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8B	66	20
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Donald M. Erb

November 23, 1998

MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY

PERCOLATION TEST FORM

Owner Name _____

Project Name Comanche W/2 NW/4 Sec. 20 T3N R24E

Lot or Tract Number 8A Test Number _____

Diameter of Test Hole 6" Depth of Test Hole 66"

Date and Time Soak Period Began 10/14/04 5PM Ended 10/15/04 12:20 PM

Date Test Began 10/15/04

Test Results

Start Time of Day	End Time of Day	Time Interval (minutes)	Initial Distance below reference point	Final Distance below reference point	Drop in water level (inches)	Percolation Rate (minutes/inch)
12:22	12:32	10	15	15 5/8	5/8	
12:34	12:44	10	15	15 3/4	3/4	
12:47	12:57	10	15	15 5/8	5/8	
1:00	1:10	10	15	15 5/8	5/8	
1:12	1:22	10	15	15 5/8	5/8	16 min/in
						16
						1625/10

I certify that this percolation test was done in accordance with WQB-6, Appendix A.

Donald M. Erb
Name (printed)

Donald M. Erb
Signature

10/18/04
Date

Company

November 23, 1998

MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY

PERCOLATION TEST FORM

Owner Name _____

Project Name Commanche W/2 NW/4 Sec. 20 T3N R24E

Lot or Tract Number 10A Test Number _____

Diameter of Test Hole 6" Depth of Test Hole 66"

Date and Time Soak Period Began 10/14/04 5:10 PM Ended 10/15/04 1:45 PM

Date Test Began 10/15/04

Test Results

Start Time of Day	End Time of Day	Time Interval (minutes)	Initial Distance below reference point	Final Distance below reference point	Drop in water level (inches)	Percolation Rate (minutes/inch)
1:50	2:00	10	17	17 3/4	3/4	
2:02	2:12	10	17	17 7/8	7/8	
2:15	2:25	10	17	17 3/4	3/4	
2:27	2:37	10	17	17 3/4	3/4	
2:40	2:50	10	17	17 3/4	3/4	13 min/in
						13.33
						125/10

I certify that this percolation test was done in accordance with WQB-6, Appendix A.

Donald M. Erb
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Signature

10/18/04
Date

Company

November 23, 1998

MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY

PERCOLATION TEST FORM

Owner Name _____

Project Name Commanche W/2 NW/4 Sec. 20 T3N R24E

Lot or Tract Number 14 B Test Number _____

Diameter of Test Hole 6" Depth of Test Hole 66"

Date and Time Soak Period Began 10/14/04 5:10 PM Ended 10/15/04 3:10 PM

Date Test Began 10/15/04

Test Results

Start Time of Day	End Time of Day	Time Interval (minutes)	Initial Distance below reference point	Final Distance below reference point	Drop in water level (inches)	Percolation Rate (minutes/inch)
3:15	3:25	10	16	17 1/4	1 1/4	
3:27	3:37	10	16	17 1/8	1 1/8	
3:40	3:50	10	16	17	1	
3:52	4:02	10	16	17 1/8	1 1/8	
4:04	4:14	10	16	17	1	
4:16	4:26	10	16	17	1	10 min/in
						10
						1/10

I certify that this percolation test was done in accordance with WQB-6, Appendix A.

Donald M. Erb
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Signature

10/18/04
Date

Company

November 23, 1998

MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY

PERCOLATION TEST FORM

Owner Name _____

Project Name East Commanche E/2 NW 1/4 Sec. 20 T3N R24E

Lot or Tract Number 4B Test Number _____

Diameter of Test Hole 6" Depth of Test Hole 66"

Date and Time Soak Period Began 10/14/04 9AM Ended 10/14/04 1PM

Date Test Began 10/14/04

Test Results

Start Time of Day	End Time of Day	Time Interval (minutes)	Initial Distance below reference point	Final Distance below reference point	Drop in water level (inches)	Percolation Rate (minutes/inch)
1:00	1:30	30	16	17 3/8	1 3/8	
1:33	2:03	30	16	17 3/8	1 3/8	
2:06	2:36	30	16	17 1/4	1 1/4	
2:38	3:08	30	16	17 1/4	1 1/4	
3:11	3:41	30	16	17 1/4	1 1/4	
3:43	4:13	30	16	17 1/4	1 1/4	24 min/in

I certify that this percolation test was done in accordance with WQB-6, Appendix A.

Donald M. Erb
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Donald M. Erb
Signature

10/18/04
Date

Company

November 23, 1998

MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY

PERCOLATION TEST FORM

Owner Name _____

Project Name East Camanche E/2 NW/4 Sec. 20 T3N R24E

Lot or Tract Number 6D Test Number _____

Diameter of Test Hole 6" Depth of Test Hole 66"

Date and Time Soak Period Began 10/14/04 4:45 PM Ended 10/15/04 9:30 AM

Date Test Began 10/15/04

Test Results

Start Time of Day	End Time of Day	Time Interval (minutes)	Initial Distance below reference point	Final Distance below reference point	Drop in water level (inches)	Percolation Rate (minutes/inch)
9:35	9:45	10	19	19 7/8	7/8	
9:47	9:57	10	19	19 3/4	3/4	
10:00	10:10	10	19	19 5/8	5/8	
10:12	10:22	10	19	19 3/4	3/4	
10:24	10:34	10	19	19 5/8	5/8	
10:36	10:46	10	19	19 5/8	5/8	16 mins/in
						16

I certify that this percolation test was done in accordance with WQB-6, Appendix A.

Donald M. Erb
Name (printed)

Donald M. Erb
Signature

10/18/04
Date

Company

November 23, 1998

MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY

PERCOLATION TEST FORM

Owner Name _____

Project Name East Comanche E/2 NW/4 Sec. 20 T3N R24E

Lot or Tract Number 7C Test Number _____

Diameter of Test Hole 6" Depth of Test Hole 66"

Date and Time Soak Period Began 10/14/04 4:55 PM Ended 10/15/04 11 AM

Date Test Began 10/15/04

Test Results

Start Time of Day	End Time of Day	Time Interval (minutes)	Initial Distance below reference point	Final Distance below reference point	Drop in water level (inches)	Percolation Rate (minutes/inch)
11:00	11:10	10	18	18 ⁷ / ₈	⁷ / ₈	
11:12	11:22	10	18	18 ³ / ₄	³ / ₄	
11:24	11:34	10	18	18 ⁷ / ₈	⁷ / ₈	
11:36	11:46	10	18	18 ³ / ₄	³ / ₄	
11:48	11:58	10	18	18 ³ / ₄	³ / ₄	
12:00	12:10	10	18	18 ³ / ₄	³ / ₄	13 min/in

I certify that this percolation test was done in accordance with WQB-6, Appendix A.

Donald M. Erb
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Signature

10/18/04
Date

Company

November 23, 1998

MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY

PERCOLATION TEST FORM

Owner Name _____

Project Name East Comanche E/2 NW/4 Sec. 20 T3N R24E

Lot or Tract Number 8B Test Number _____

Diameter of Test Hole 6" Depth of Test Hole 66"

Date and Time Soak Period Began 10/14/04 9:15 Ended 10/14/04 1:15

Date Test Began 10/14/04

Test Results

Start Time of Day	End Time of Day	Time Interval (minutes)	Initial Distance below reference point	Final Distance below reference point	Drop in water level (inches)	Percolation Rate (minutes/inch)
1:15	1:45	30	18	19 1/2	1 1/2	
1:48	2:18	30	18	19 5/8	1 5/8	
2:20	2:50	30	18	19 1/2	1 1/2	
2:53	3:23	30	18	19 5/8	1 5/8	
3:25	3:55	30	18	19 1/2	1 1/2	
3:58	4:28	30	18	19 1/2	1 1/2	20 min/in
						90

I certify that this percolation test was done in accordance with WQB-6, Appendix A.

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Donald M. Erb
Signature

10/18/04
Date

Company

Commanche Town Site
W/2 NW/4 Sec. 20 T3N R24E
Yellowstone County, Montana

10/04

Lot 3 A

Soil Profile

Depth (ins.)	Texture	Structure
0 – 21	Clay	Moderate, Medium, Prismatic
21 – 55	Clay	Massive
55 – 132	Loams and fine sandy loams	Weak, Fine, Granular

Lot 6 A

0 – 20	Clay	Moderate, Medium, Prismatic
20 – 50	Clay	Massive
50 – 132	Loams and fine sandy loams	Weak, Fine, Granular

Lot 8 A

0 – 18	Clay	Moderate, Medium, Prismatic
18 – 52	Clay	Massive
52 – 132	Loams and fine sandy loams	Weak, Fine, Granular

Lot 10 A

0 – 23	Clay	Moderate, Medium, Prismatic
23 – 51	Clay	Massive
51 – 132	Loams and fine sandy loams	Weak, Fine, Granular

Donald M. Erb

Commanche Town Site
W/2 NW/4 Sec. 20 T3N R24E
Yellowstone County, Montana

10/04

Lot 12 A

Soil profile

Depth (ins.)	Texture	Structure
0 – 22	Clay	Moderate, Medium, Prismatic
22 – 53	Clay	Massive
53 – 132	Loams and fine sandy loams	Weak, Fine, Granular

Lot 14 B

0 – 18	Clay	Moderate, Medium, Prismatic
18 – 48	Clay	Massive
48 – 132	Loams and fine sandy loams	Weak, Fine, Granular

Donald M. Erb

East Commanche Sub
E/2 NW/4 Sec. 20 T3N
Yellowstone County, Montana

10/04

Lot 2 B

Soil Profile

Depth (ins.)	Texture	Structure
0 – 20	Clay	Moderate, Medium, Prismatic
20 – 58	Clay	Massive
58 – 132	Loams and fine sandy loams	Weak, Fine, Granular

Lot 3 C

0 – 23	Clay	Moderate, Medium, Prismatic
23 – 62	Clay	Massive
62 – 132	Loams and fine sandy loams	Weak, Fine, Granular

Lot 4 B

0 – 18	Clay	Moderate, Medium, Prismatic
18 – 54	Clay	Massive
54 – 132	Loams and fine sandy loams	Weak, Fine, Granular

Lot 5 A

0 – 22	Clay	Moderate, Medium, Prismatic
22 – 52	Clay	Massive
52—132	Loams and fine sandy loams	Weak, Fine, Granular

Donald M. Erb

East Commanche Sub.
E/2 NW/4 Sec. 20 T3N R24E
Yellowstone County, Montana

10/04

Lot 6 D

Soil Profile

Depth (ins.)	Texture	Structure
0 – 24	Clay	Moderate, Medium, Prismatic
24 – 55	Clay	Massive
55 – 132	Loams and fine sandy loams	Weak, Fine, Granular

Lot 7 C

0 – 19	Clay	Moderate, Medium, Prismatic
19 – 52	Clay	Massive
52 – 132	Loams and fine sandy loams	Weak Fine, Granular

Lot 8 B

0 – 25	Clay	Moderate, Medium, Prismatic
25 – 53	Clay	Massive
53 – 132	Loams and fine sandy loams	Weak, Fine, Granular

Lot 9 A

0 – 24	Clay	Moderate, Medium, Prismatic
24 – 54	Clay	Massive
54 – 132	Loams and fine sandy loams	Weak, Fine, Granular

Donald M. Erb

Town of commanche &
East Commanche Sub.
NW/4 Sec. 20 T3N R24E

WATER TABLE NOTES

1. Depth to water table exceeded 11 feet at the time of testing.
2. The first significant signs of mottling occurred at a depth of 10 feet to 10 feet 6 inches.
3. Vegetation in the area does not indicate water table problems.
4. There is no irrigation in the area.