

# DRILLING LOG

## HOLE NO. N0050

Page 1 of 1

Property: UMore Park Property

Location: City of Rosemount & Empire Township, Dakota County, Minnesota

UTM Zone 15/NAD83/NAVD88  
 492,207.29 mE +/- 0.02 m 4,950,066.14 mN +/- 0.02 m  
 Elevation (ft.): 943.7 +/- 0.1 ft.  
 Ground Water Depth (ft.): Ground water not encountered  
 Ground Water Elevation (ft.):  
 Site: Grassy field road at natural grade.

Drilling Method: 9-inch flight auger Started: 4/22/08 7:45 AM  
 Drilling Contractor: Braun Intertec Completed: 4/22/08 8:30 AM  
 Drill Rig: CME-750 Logged By: J.D. Lehr

		DRILLING & SAMPLING					TEST RESULTS (%)					Geologic Interpretation	Economic Classification
Graphic Log	Depth (ft.)	Gravel Per Drill Action	Sample Runs	Sampled Intervals	Total + #4 Sieve	+ 1.5 Inch	1.5 Inch to 3/4 Inch	3/4 Inch to #4 Sieve	Sample Wt. (lbs)				
1.0 <b>TOPSOIL.</b> Silty, black.	942.7										Loess		
3.0 <b>SILT.</b> Brown.	940.7												
5.0 <b>SAND.</b> Fine to coarse sand. Minor gravel to 1-1/2 inches.	938.7												
10.0 <b>SAND.</b> Fine to very coarse sand. Minor gravel to 1-1/2 inches.	933.7					19.2	2.8	4.5	11.9	43.2	Superior lobe outwash	24.7 % + #4	
15.0 <b>SAND.</b> Fine to very coarse sand. Minor gravel to 2 inches.	928.7					17.2	6.0	3.5	7.8	37.4			
21.0 <b>SAND &amp; GRAVEL.</b> Medium to very coarse sand, slightly dirty. Gravel to 1-1/2 inches. High percentage pea gravel.	922.7					37.2	1.3	4.9	31.0	39.0			
25.0 <b>SILT.</b> Brown to gray.	918.7										Lacustrine sediment		
	T.D. 25 ft.												

LOG A GNIN08 UMORE PARK DRILLING LOGS.GPJ LOG A GNIN08.GDT Printed 5/30/08

# DRILLING LOG

## HOLE NO. N0250

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Property: UMore Park Property

Location: City of Rosemount & Empire Township, Dakota County, Minnesota

UTM Zone 15/NAD83/NAVD88  
 492,204.80 mE +/- 0.02 m 4,950,250.76 mN +/- 0.02 m  
 Elevation (ft.): 944.2 +/- 0.1 ft.  
 Ground Water Depth (ft.): 60.0  
 Ground Water Elevation (ft.): 884.2  
 Site: Grassy field road at natural grade.

Drilling Method: 9-inch flight auger Started: 4/21/08 2:10 PM  
 Drilling Contractor: Braun Intertec Completed: 4/21/08 3:45 PM  
 Drill Rig: CME-750 Logged By: J.D. Lehr

Depth (ft.)	Graphic Log	Gravel Per Drill Action	Sample Runs	Sampled Intervals	TEST RESULTS (%)					Geologic Interpretation	Economic Classification	
					Total + #4 Sieve	+ 1.5 Inch	1.5 Inch to 3/4 Inch	3/4 Inch to #4 Sieve	Sample Wt. (lbs)			
2.0	TOPSOIL. Silty, black.											
5.0	SILT. Brown. Lower contact based on drill action.									Loess		
10.0	SAND & GRAVEL. Fine to very coarse sand. Gravel to 4-1/2 inches.				25.1	10.3	1.9	12.8	29.0	Superior lobe outwash	20.9% + #4	
15.0	SAND. Fine to very coarse sand. Minor gravel to 2-1/2 inches.				23.0	2.9	3.6	16.5	27.6			
20.0	SAND. Fine to very coarse sand. Very minor gravel to 1-1/4 inches.				14.2	0.0	3.6	10.6	32.3			
25.0	SAND & GRAVEL. Fine to very coarse sand. Gravel to 3-1/2 inches.				32.0	18.5	4.6	8.9	29.7			
30.0	SAND. Fine to coarse sand. Very minor gravel to 1 inch.				8.6	0.0	2.4	6.2	20.0			
35.0	SAND. Fine to very coarse sand. Minor gravel to 1-1/4 inches.				15.1	0.0	3.1	12.0	22.5			
40.0	SAND & GRAVEL. Medium to very coarse sand. Gravel to 2-1/2 inches.				28.4	4.0	6.6	17.8	27.6			
45.0	SAND. Medium to very coarse sand. Minor gravel to 1-3/4 inches.				16.6	1.5	1.8	13.3	24.2			
50.0	SAND. Medium to very coarse sand. Minor gravel to 1-1/2 inches.				21.4	1.2	4.2	16.0	22.9			
55.0	SAND. Fine to coarse sand, dirty. Minor gravel to 3 inches. Till balls present.				24.7	5.3	4.8	14.5	34.6			
65.0	SAND. Fine sand, slightly dirty. Very minor trace gravel to 3/4 inch. Till balls present.											
	T.D. 65 ft.											

LOG A GNNIN08 UMORE PARK DRILLING LOGS.GPJ LOG A GNNIN08.GDT Printed 5/30/08

# DRILLING LOG

## HOLE NO. N0850

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Property: UMore Park Property

Location: City of Rosemount & Empire Township, Dakota County, Minnesota

UTM Zone 15/NAD83/NAVD88

492,203.28 mE +/- 0.02 m 4,950,839.47 mN +/- 0.02 m

Elevation (ft.): 946.8 +/- 0.1 ft.

Ground Water Depth (ft.): 62.0

Ground Water Elevation (ft.): 884.8

Site: Snow covered soybean stubble field at natural grade.

Drilling Method: 9-inch flight auger

Started: 2/25/08 9:35 AM

Drilling Contractor: Braun Intertec

Completed: 2/25/08 11:00 AM

Drill Rig: CME-750

Logged By: J.D. Lehr

		DRILLING & SAMPLING				TEST RESULTS (%)				Geologic Interpretation	Economic Classification
Graphic Log	Depth (ft.)	Gravel Per Drill Action	Sample Runs	Sampled Intervals	Total + #4 Sieve	+ 1.5 Inch	1.5 Inch to 3/4 Inch	3/4 Inch to #4 Sieve	Sample Wt. (lbs)		
2.0	FILL. Silty, sandy, gravelly.	944.8								Loess	
3.0	TOPSOIL. Silty, black.	943.8									
6.0	SILT. Brown.	940.8								Superior lobe outwash	20.9 % + #4
10.0	SAND. Fine to medium sand. Minor gravel to 3/4 inch.	936.8			18.2	0.0	1.9	16.3	34.8		
15.0	SAND & GRAVEL. Fine to very coarse sand. Gravel to 1-1/2 inches.	931.8			31.0	0.0	6.4	24.6	32.3		
20.0	SAND & GRAVEL. Fine to very coarse sand. Gravel to 3/4 inch.	926.8			29.0	0.0	2.1	26.9	24.5		
25.0	SAND. Fine to medium sand. Minor gravel to 2-1/2 inches.	921.8			20.4	5.3	4.0	11.1	28.0		
30.0	SAND. Fine to coarse sand. Minor gravel to 1-1/4 inches.	916.8			19.9	0.6	6.1	13.3	31.0		
35.0	SAND & GRAVEL. Fine to coarse sand. Gravel to 2 inches.	911.8			26.4	3.4	4.4	18.6	28.8		
40.0	SAND. Fine to coarse sand. Minor gravel to 1-1/2 inches.	906.8			22.7	0.7	4.4	17.6	30.6		
45.0	SAND. Fine to very coarse sand. Minor gravel to 1-3/4 inches.	901.8			24.4	6.1	4.5	13.9	25.5		
50.0	SAND. Fine to coarse sand. Minor gravel to 1-1/2 inches.	896.8			15.2	0.8	7.2	7.2	28.3		
55.0	SAND. Fine to medium sand. Very minor trace gravel to 1/2 inch.	891.8			3.7	0.0	0.0	3.7	15.4		
60.0	SAND. Fine to medium sand. Very minor gravel to 1-1/2 inches.	886.8			14.5	2.2	2.5	9.8	23.0		
65.0	SAND & GRAVEL. Fine to very coarse sand. Gravel to 1-1/2 inches.	881.8			24.6	0.0	3.9	20.6	29.9		
	T.D. 65 ft.										

LOG A GNNIN08 UMORE PARK DRILLING LOGS.GPJ LOG A GNNIN08.GDT Printed 5/30/08

# DRILLING LOG

## HOLE NO. N1250

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Property: UMore Park Property

Location: City of Rosemount & Empire Township, Dakota County, Minnesota

UTM Zone 15/NAD83/NAVD88  
 492,242.22 mE +/- 0.02 m 4,951,248.26 mN +/- 0.02 m  
 Elevation (ft.): 945.9 +/- 0.1 ft.  
 Ground Water Depth (ft.): Ground water level uncertain  
 Ground Water Elevation (ft.):  
 Site: Field road at approximately natural grade.

Drilling Method: 4x6 Rotasonic Started: 3/24/08 10:50 AM  
 Drilling Contractor: Traut Wells Completed: 3/24/08 1:40 PM  
 Drill Rig: Versasonic Logged By: J.D. Lehr

DRILLING & SAMPLING					TEST RESULTS (%)					Geologic Interpretation	Economic Classification
Graphic Log	Depth (ft.)	Gravel Per Drill Action	Sample Runs	Sampled Intervals	Total + #4 Sieve	+ 1.5 Inch	1.5 Inch to 3/4 Inch	3/4 Inch to #4 Sieve	Sample Wt. (lbs)		

4.0	941.9										Loess	
10.0	935.9				28.8	9.7	5.8	13.3	36.4		Superior lobe outwash	20.7% + #4
20.0	925.9				5.7	0.0	1.1	4.6	27.7			
30.0	915.9				18.3	2.5	4.3	11.5	34.5			
40.0	905.9				18.3	1.0	3.8	13.5	43.6			
50.0	895.9				25.5	3.0	5.0	17.5	37.8			
59.0	886.9				32.0	2.7	7.7	21.6	39.6			
65.0	880.9										Older outwash	
											Till	

Continued Next Page

LOG A GNNIN08 UMORE PARK DRILLING LOGS.GPJ LOG A GNNIN08.GDT Printed 5/30/08

# DRILLING LOG

## HOLE NO. N1250

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Property: UMore Park Property

Location: City of Rosemount & Empire Township, Dakota County, Minnesota

UTM Zone 15/NAD83/NAVD88  
 492,242.22 mE +/- 0.02 m 4,951,248.26 mN +/- 0.02 m  
 Elevation (ft.): 945.9 +/- 0.1 ft.  
 Ground Water Depth (ft.): Ground water level uncertain  
 Ground Water Elevation (ft.):  
 Site: Field road at approximately natural grade.

Drilling Method: 4x6 Rotasonic Started: 3/24/08 10:50 AM  
 Drilling Contractor: Traut Wells Completed: 3/24/08 1:40 PM  
 Drill Rig: Versasonic Logged By: J.D. Lehr

DRILLING & SAMPLING					TEST RESULTS (%)				Geologic Interpretation	Economic Classification
Graphic Log	Depth (ft.)	Gravel Per Drill Action	Sample Runs	Sampled Intervals	Total + #4 Sieve	+ 1.5 Inch	1.5 Inch to 3/4 Inch	3/4 Inch to #4 Sieve		

**TILL.** Clayey, yellowish brown to gray.  
 (continued)  
 80.0 865.9

T.D. 80 ft.	80										
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# DRILLING LOG

## HOLE NO. N2450

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Property: UMore Park Property

Location: City of Rosemount & Empire Township, Dakota County, Minnesota

UTM Zone 15/NAD83/NAVD88

492,200.34 mE +/- 0.02 m 4,952,450.72 mN +/- 0.02 m

Elevation (ft.): 944.6 +/- 0.1 ft.

Ground Water Depth (ft.): Ground water not encountered

Ground Water Elevation (ft.):

Site: Snow covered plowed field at natural grade.

Drilling Method: 9-inch flight auger

Started: 3/3/08 7:15 AM

Drilling Contractor: Braun Intertec

Completed: 3/3/08 8:10 AM

Drill Rig: CME-750

Logged By: J.D. Lehr

### DRILLING & SAMPLING

### TEST RESULTS (%)

Geologic Interpretation  
Economic Classification

Graphic Log	Depth (ft.)	Gravel Per Drill Action	Sample Runs	Sampled Intervals	Total + #4 Sieve	+ 1.5 Inch	1.5 Inch to 3/4 Inch	3/4 Inch to #4 Sieve	Sample Wt. (lbs)	Geologic Interpretation	Economic Classification
2.0 <b>TOPSOIL.</b> Silty, black.	942.6									Loess	
5.0 <b>SILT.</b> Brown.	939.6										
10.0 <b>SAND.</b> Fine to medium sand. Very minor gravel to 1 inch.	934.6									Superior lobe outwash	
15.0 <b>SAND.</b> Fine to coarse sand. Very minor gravel to 1-1/2 inches.	929.6										
20.0 <b>SAND.</b> Fine sand. Very minor trace gravel to 1/2 inch.	924.6										
25.0 <b>SAND.</b> Fine to coarse sand. Very minor gravel to 1-1/4 inches.	919.6										
<b>SAND.</b> Fine to medium sand. Very minor gravel to 1 inch.											
37.0 <b>SAND.</b> Very fine sand. No gravel.	907.6									Lacustrine sediment	
41.0 <b>SILT.</b> Brown.	903.6										
45.0	899.6										
T.D. 45 ft.											
No samples taken. Estimated less than 10 percent gravel from 5 to 37 feet.											

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# DRILLING LOG

## HOLE NO. N2850

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Property: UMore Park Property

Location: City of Rosemount & Empire Township, Dakota County, Minnesota

UTM Zone 15/NAD83/NAVD88

492,201.61 mE +/- 0.02 m 4,952,852.01 mN +/- 0.02 m

Elevation (ft.): 948.3 +/- 0.1 ft.

Ground Water Depth (ft.): Ground water not encountered

Ground Water Elevation (ft.):

Site: Snow covered field at natural grade.

Drilling Method: 9-inch flight auger

Started: 2/29/08 9:05 AM

Drilling Contractor: Braun Intertec

Completed: 2/29/08 10:40 AM

Drill Rig: CME-750

Logged By: J.D. Lehr

		DRILLING & SAMPLING					TEST RESULTS (%)				Geologic Interpretation	Economic Classification
Graphic Log	Depth (ft.)	Gravel Per Drill Action	Sample Runs	Sampled Intervals	Total + #4 Sieve	+ 1.5 Inch	1.5 Inch to 3/4 Inch	3/4 Inch to #4 Sieve	Sample Wt. (lbs)			
1.5	TOPSOIL. Silty, black.										Loess	
3.0	SILT. Brown.											
5.0	SAND. Fine sand. Minor gravel to 1-1/2 inch.											
10.0	SAND. Fine sand: Very minor gravel to 1-1/2 inches.					18.6	7.1	5.9	5.6	36.8		
15.0	SAND. Fine to medium sand. Minor gravel to 3 inches.											
20.0	SAND. Fine to medium sand. Very minor gravel to 1-1/4 inches.											
25.0	SAND. Fine to coarse sand. Very minor gravel to 1-1/4 inches.					8.5	0.0	3.0	5.5	29.5		
30.0	SAND & GRAVEL. Fine to very coarse sand. Gravel to 2-1/2 inches.					33.6	2.1	4.8	26.7	37.5	Superior lobe outwash	20.5 % + #4
35.0	SAND & GRAVEL. Fine to very coarse sand. Gravel to 1 inch.					30.8	0.0	4.3	26.5	30.8		
40.0	SAND & GRAVEL. Fine to coarse sand. Gravel to 3-1/2 inches.					30.4	6.3	2.5	21.6	24.3		
45.0	SAND. Fine to medium sand. Very minor gravel to 1 inch.					7.9	0.0	1.0	6.9	17.8		
50.0	SAND & GRAVEL. Fine to very coarse sand. Gravel to 1-1/4 inches.					28.2	0.0	8.1	20.2	30.7		
55.0	SAND. Fine to very coarse sand. Minor gravel to 3/4 inch.					20.7	0.0	3.1	17.5	24.8		
65.0	SAND. Fine to coarse sand, slightly iron stained. Very minor gravel to 1-1/4 inches.										Older outwash	
	T.D. 65 ft.											

LOG A GNIN08 UMORE PARK DRILLING LOGS.GPJ LOG A GNIN08.GDT Printed 5/30/08

# DRILLING LOG

## HOLE NO. N3050

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Property: UMore Park Property

Location: City of Rosemount & Empire Township, Dakota County, Minnesota

UTM Zone 15/NAD83/NAVD88  
 492,200.22 mE +/- 0.02 m 4,953,050.00 mN +/- 0.02 m  
 Elevation (ft.): 948.1 +/- 0.1 ft.  
 Ground Water Depth (ft.): Ground water not encountered  
 Ground Water Elevation (ft.):  
 Site: Snow covered corn stubble field at natural grade.

Drilling Method: 9-inch flight auger Started: 2/29/08 7:30 AM  
 Drilling Contractor: Braun Intertec Completed: 2/29/08 9:00 AM  
 Drill Rig: CME-750 Logged By: J.D. Lehr

		DRILLING & SAMPLING				TEST RESULTS (%)				Geologic Interpretation	Economic Classification	
Graphic Log	Depth (ft.)	Gravel Per Drill Action	Sample Runs	Sampled Intervals	Total + #4 Sieve	+ 1.5 Inch	1.5 Inch to 3/4 Inch	3/4 Inch to #4 Sieve	Sample Wt. (lbs)			
1.5	TOPSOIL. Silty, black.	946.6									Loess	
3.5	SILT. Brown.	944.6										
5.0	SAND. Fine to medium sand, dirty. Minor gravel to 1 inch, mostly pea gravel.	943.1				18.6	2.6	4.0	12.0	37.9	Superior lobe outwash	20.1 % + #4
10.0	SAND. Fine to coarse sand. Very minor gravel to 1-3/4 inches.	938.1				23.5	14.0	1.6	8.0	24.1		
15.0	SAND. Fine to coarse sand. Minor gravel to 3 inches.	933.1				20.8	5.4	4.7	10.7	31.7		
20.0	SAND. Fine to coarse sand. Minor gravel to 2 inches.	928.1				28.1	0.0	8.5	19.7	33.3		
25.0	SAND & GRAVEL. Fine to coarse sand. Gravel to 1-1/2 inches.	923.1				33.4	10.4	4.3	18.7	37.8		
30.0	SAND. Fine to coarse sand. Minor gravel to 1-1/2 inches.	918.1				20.4	1.1	4.4	14.9	28.2		
35.0	SAND. Fine to coarse sand. Minor gravel to 3-1/2 inches.	913.1				18.3	5.5	2.5	10.3	27.8		
40.0	SAND. Fine to coarse sand. Very minor gravel to 1-3/4 inches.	908.1				10.3	1.7	1.5	7.1	30.5		
45.0	SAND. Fine to coarse sand. Minor gravel to 1-1/4 inches.	903.1				15.8	0.0	4.1	11.7	26.0		
50.0	SAND. Fine to coarse sand. Very minor gravel to 1-1/4 inches.	898.1				14.3	0.0	4.1	10.2	25.4		
55.0	SAND. Fine to coarse sand. Minor gravel to 1-1/4 inches.	893.1				18.1	0.7	3.3	14.1	28.5		
65.0	SAND. Fine to coarse sand. Minor gravel to 1-1/4 inches.	883.1				19.8	0.0	2.4	17.4	24.6		
	T.D. 65 ft.											

LOG A GNNIN08 UMORE PARK DRILLING LOGS.GPJ LOG A GNNIN08.GDT Printed 5/30/08



# DRILLING LOG

## HOLE NO. NN0250

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Property: UMore Park Property

Location: City of Rosemount & Empire Township, Dakota County, Minnesota

UTM Zone 15/NAD83/NAVD88

494,799.35 mE +/- 0.02 m 4,950,250.20 mN +/- 0.02 m

Elevation (ft.): 930.9 +/- 0.1 ft.

Ground Water Depth (ft.): Ground water not encountered

Ground Water Elevation (ft.):

Site: Snow covered corn stubble field at natural grade.

Drilling Method: 9-inch flight auger

Started: 3/10/08 11:45 AM

Drilling Contractor: Braun Intertec

Completed: 3/10/08 12:55 PM

Drill Rig: CME-750

Logged By: J.D. Lehr

		DRILLING & SAMPLING				TEST RESULTS (%)				Geologic Interpretation	Economic Classification
Graphic Log	Depth (ft.)	Gravel Per Drill Action	Sample Runs	Sampled Intervals	Total + #4 Sieve	+ 1.5 Inch	1.5 Inch to 3/4 Inch	3/4 Inch to #4 Sieve	Sample Wt. (lbs)		
1.0	TOPSOIL. Silty, dark brown.									Loess	
5.0	SAND. Fine to medium sand. Very minor gravel to 1 inch.									Superior lobe outwash	14.4% + #4
10.0	SAND. Fine to coarse sand. Very minor gravel to 1-3/4 inches.				15.0	3.1	2.9	9.0	44.6		
15.0	SAND. Fine to coarse sand. Very minor gravel to 2 inches.										
20.0	SAND. Fine to coarse sand. Very minor gravel to 1-1/2 inches.				13.5	2.1	3.4	8.0	32.5		
25.0	SAND. Fine to coarse sand. Very minor gravel to 3-1/2 inches.				14.2	7.6	1.6	5.1	29.1		
30.0	SAND. Fine to medium sand. Very minor trace gravel to 1 inch.										
35.0	SAND. Fine to medium sand. Very minor trace gravel to 1-1/2 inches.										
40.0	SAND. Fine sand. No gravel.										
45.0											
47.5	NO RECOVERY. Sand & gravel indicated by drill action.										
50.0	TILL. Clayey, brown.									Till	
	T.D. 50 ft.										

LOG A GNINN08 UMORE PARK DRILLING LOGS.GPJ LOG A GNINN08.GDT Printed 5/30/08

# DRILLING LOG

## HOLE NO. NN0450

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Property: UMore Park Property

Location: City of Rosemount & Empire Township, Dakota County, Minnesota

UTM Zone 15/NAD83/NAVD88

494,799.98 mE +/- 0.02 m 4,950,448.95 mN +/- 0.02 m

Elevation (ft.): 931.5 +/- 0.1 ft.

Ground Water Depth (ft.): Ground water not encountered

Ground Water Elevation (ft.):

Site: Snow covered plowed field at natural grade.

Drilling Method: 9-inch flight auger

Started: 3/10/08 1:05 PM

Drilling Contractor: Braun Intertec

Completed: 3/10/08 2:00 PM

Drill Rig: CME-750

Logged By: J.D. Lehr

Depth (ft.)	Graphic Log	Gravel Per Drill Action	Sample Runs	Sampled Intervals	TEST RESULTS (%)					Geologic Interpretation	Economic Classification	
					Total + #4 Sieve	+ 1.5 Inch	1.5 Inch to 3/4 Inch	3/4 Inch to #4 Sieve	Sample Wt. (lbs)			
1.5	TOPSOIL. Silty, sandy, black.											
5.0	SAND. Very fine to fine sand, dirty to very dirty. Very minor trace gravel to 1 inch from 4 to 5 feet.										Loess	
10.0	SAND. Fine to medium sand. Very minor gravel to 3 inches.				10.5	2.9	3.5	4.1	26.2		Superior lobe outwash	23.5 % + #4
15.0	SAND & GRAVEL. Fine to medium sand. Gravel to 2 inches.				27.3	8.5	8.4	10.5	29.9			
20.0	SAND & GRAVEL. Fine to coarse sand. Gravel to 2 inches.				25.1	8.1	7.0	10.0	33.0			
25.0	SAND. Fine to coarse sand. Minor gravel to 3 inches.				19.7	6.2	5.1	8.5	31.2			
30.0	SAND. Fine to very coarse sand. Minor gravel to 1-1/2 inches.				23.7	0.8	6.1	16.9	32.0			
35.0	SAND & GRAVEL. Fine to very coarse sand. Gravel to 4-1/2 inches.				28.3	10.0	3.6	14.7	33.0			
40.0	SAND & GRAVEL. Fine to very coarse sand. Gravel to 1-1/2 inches.				29.6	2.3	3.2	24.1	48.6			
43.0	SAND. Fine sand. No gravel.									Older OW		
45.0	TILL. Clayey, yellowish brown.									Till		
	T.D. 45 ft.											

LOG A GNIN08 UMORE PARK DRILLING LOGS.GPJ LOG A GNIN08.GDT Printed 5/30/08

# DRILLING LOG

## HOLE NO. NN0650

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Property: UMore Park Property

Location: City of Rosemount & Empire Township, Dakota County, Minnesota

UTM Zone 15/NAD83/NAVD88

494,798.75 mE +/- 0.02 m 4,950,649.57 mN +/- 0.02 m

Elevation (ft.): 934.6 +/- 0.1 ft.

Ground Water Depth (ft.): Ground water not encountered

Ground Water Elevation (ft.):

Site: Snow covered soybean stubble field at natural grade.

Drilling Method: 9-inch flight auger

Started: 3/10/08 2:05 PM

Drilling Contractor: Braun Intertec

Completed: 3/10/08 2:55 PM

Drill Rig: CME-750

Logged By: J.D. Lehr

### DRILLING & SAMPLING

### TEST RESULTS (%)

Geologic Interpretation

Economic Classification

Graphic Log	Depth (ft.)	Gravel Per Drill Action	Sample Runs	Sampled Intervals	Total + #4 Sieve	+ 1.5 Inch	1.5 Inch to 3/4 Inch	3/4 Inch to #4 Sieve	Sample Wt. (lbs)	Geologic Interpretation	Economic Classification
2.0 <b>TOPSOIL.</b> Silty, black.	932.6									Loess	
3.5 <b>SILT.</b> Brown.	931.1										
5.0 <b>SAND.</b> Fine to medium sand. Very minor gravel to 1-1/2 inches.	929.6										
<b>SAND.</b> Fine sand: Very minor trace gravel to 1 inch.											
15.0	919.6				3.2	0.0	1.3	1.9	31.9		
<b>SAND.</b> Fine to medium sand. Very minor gravel to 1 inch.											
20.0	914.6				9.3	1.7	3.5	4.1	31.0	Superior lobe outwash	11.9% + #4
<b>SAND.</b> Fine to medium sand. Very minor gravel to 2 inches.											
25.0	909.6				25.9	4.3	3.9	17.7	49.1		
<b>SAND &amp; GRAVEL.</b> Fine to coarse sand. Gravel to 2 inches.											
34.0	900.6										
35.0 <b>SANDSTONE.</b> Very fine sand, yellowish brown.	899.6									St. Peter Sandstone	
T.D. 35 ft.											

LOG A GNIN08 UMORE PARK DRILLING LOGS.GPJ LOG A GNIN08.GDT Printed 5/30/08

# DRILLING LOG

## HOLE NO. NN1250

Page 1 of 1

Property: UMore Park Property

Location: City of Rosemount & Empire Township, Dakota County, Minnesota

UTM Zone 15/NAD83/NAVD88

494,799.98 mE +/- 0.02 m 4,951,249.32 mN +/- 0.02 m

Elevation (ft.): 934.3 +/- 0.1 ft.

Ground Water Depth (ft.): Ground water not encountered

Ground Water Elevation (ft.):

Site: Snow covered corn stubble field at natural grade.

Drilling Method: 9-inch flight auger

Started: 3/11/08 8:40 AM

Drilling Contractor: Braun Intertec

Completed: 3/11/08 9:30 AM

Drill Rig: CME-750

Logged By: J.D. Lehr

### DRILLING & SAMPLING

### TEST RESULTS (%)

Geologic Interpretation

Economic Classification

Graphic Log	Depth (ft.)	Gravel Per Drill Action	Sample Runs	Sampled Intervals	Total + #4 Sieve	+ 1.5 Inch	1.5 Inch to 3/4 Inch	3/4 Inch to #4 Sieve	Sample Wt. (lbs)	Geologic Interpretation	Economic Classification
1.5 <b>TOPSOIL.</b> Silty, black.	932.8									Loess	
3.0 <b>SILT.</b> Sandy towards bottom of interval, brown.	931.3										
5.0 <b>SAND.</b> Fine to medium sand. Minor gravel to 2 inches.	929.3										
10.0 <b>SAND.</b> Fine to medium sand. Very minor gravel to 1-1/2 inches.	924.3				11.0	1.4	2.3	7.3	35.9		
15.0 <b>SAND.</b> Fine to medium sand. Very minor trace gravel to 1 inch.	919.3										
20.0 <b>SAND.</b> Fine to medium sand. Very minor gravel to 1-1/2 inches.	914.3				7.6	1.1	1.4	5.1	30.2		
25.0 <b>SAND.</b> Fine to coarse sand. Very minor gravel to 1 inch.	909.3									Superior lobe outwash	
30.0 <b>SAND.</b> Fine to very coarse sand. Minor gravel to 1 inch.	904.3				19.9	0.0	2.1	17.8	29.9		
35.0 <b>SAND.</b> Fine to coarse sand. Very minor gravel to 1 inch.	899.3				10.2	0.0	0.9	9.3	27.6		
40.0 <b>SAND.</b> Fine to medium sand. Very minor gravel to 1 inch.	894.3				12.2	0.0	4.2	8.0	40.6		
43.0 <b>SAND.</b> Fine to coarse sand. Minor gravel to 2 inches.	891.3				19.1	4.6	5.6	8.9	20.3		
45.0 <b>TILL.</b> Clayey, gray.	889.3									Till	

T.D. 45 ft.

11.9% + #4

LOG A GNIN08 UMORE PARK DRILLING LOGS.GPJ LOG A GNIN08.GDT Printed 5/30/08

# DRILLING LOG

## HOLE NO. NN1450

Page 1 of 1

Property: UMore Park Property

Location: City of Rosemount & Empire Township, Dakota County, Minnesota

UTM Zone 15/NAD83/NAVD88

494,800.07 mE +/- 0.02 m 4,951,449.94 mN +/- 0.02 m

Elevation (ft.): 935.3 +/- 0.1 ft.

Ground Water Depth (ft.): Ground water not encountered

Ground Water Elevation (ft.):

Site: Snow covered corn stubble field at natural grade.

Drilling Method: 9-inch flight auger

Started: 3/11/08 9:35 AM

Drilling Contractor: Braun Intertec

Completed: 3/11/08 11:00 AM

Drill Rig: CME-750

Logged By: J.D. Lehr

### DRILLING & SAMPLING

### TEST RESULTS (%)

Geologic Interpretation

Economic Classification

Graphic Log	Depth (ft.)	Gravel Per Drill Action	Sample Runs	Sampled Intervals	Total + #4 Sieve	+ 1.5 Inch	1.5 Inch to 3/4 Inch	3/4 Inch to #4 Sieve	Sample Wt. (lbs)	Geologic Interpretation	Economic Classification
3.0 <b>TOPSOIL.</b> Silty, black.	932.3									Loess	
6.0 <b>SILT.</b> Brown. Lower contact based on drill action.	929.3										
<b>SAND.</b> Fine to coarse sand. Minor gravel to 1-1/2 inches.	15.0 920.3				16.7	1.0	7.9	7.9	40.1	Superior lobe outwash	18.7% + #4
<b>SAND.</b> Fine sand. Very minor trace gravel to 1/2 inch.	20.0 915.3				7.9	0.0	1.9	6.0	32.1		
<b>SAND.</b> Fine sand. Very minor gravel to 1 inch.	25.0 910.3				32.9	2.2	5.1	25.5	36.4		
<b>SAND &amp; GRAVEL.</b> Fine to very coarse sand. Gravel to 3 inches.	30.0 905.3				30.4	0.0	9.2	21.2	33.3		
<b>SAND &amp; GRAVEL.</b> Fine to very coarse sand. Gravel to 1-1/2 inches.	40.0 895.3				33.6	1.6	7.6	24.4	31.4		
<b>SAND &amp; GRAVEL.</b> Fine to very coarse sand. Gravel to 2-1/2 inches.	45.0 890.3				26.5	6.6	4.5	15.3	30.4		
<b>SAND.</b> Fine to very coarse sand. Minor gravel to 2 inches. Refusal at 52 feet in what driller thought was till. No till on bit.	52.0 883.3				23.6	8.2	7.1	8.3	53.6		

T.D. 52 ft.

LOG A GNNN08 UMORE PARK DRILLING LOGS.GPJ LOG A GNNN08.GDT Printed 5/30/08

# DRILLING LOG

## HOLE NO. NN1850

Page 1 of 2

Property: UMore Park Property

Location: City of Rosemount & Empire Township, Dakota County, Minnesota

UTM Zone 15/NAD83/NAVD88

494,804.84 mE +/- 0.02 m 4,951,864.17 mN +/- 0.02 m

Elevation (ft.): 932.3 +/- 0.1 ft.

Ground Water Depth (ft.): Ground water level greater than 60 feet

Ground Water Elevation (ft.):

Site: Edge of field road approximately 1.5 feet above natural grade.

Drilling Method: 4x6 Rotasonic

Started: 3/25/08 2:05 PM

Drilling Contractor: Traut Wells

Completed: 3/25/08 3:40 PM

Drill Rig: Versasonic

Logged By: J.D. Lehr

Depth (ft.)	Graphic Log	DRILLING & SAMPLING					TEST RESULTS (%)				Geologic Interpretation	Economic Classification	
		Gravel Per Drill Action	Sample Runs	Sampled Intervals	Total + #4 Sieve	+ 1.5 Inch	1.5 Inch to 3/4 Inch	3/4 Inch to #4 Sieve	Sample Wt. (lbs)				
0.5	FILL. Gravel, silty.											Fill	
2.0	TOPSOIL. Silty, black.											Loess	
5.5	SILT. Brown.												
10.0	SAND. Fine to coarse sand. Minor gravel to 2 inches.					16.8	1.6	2.6	12.7	36.2			
20.0	SAND. Fine to medium sand. Very minor gravel to 2 inches.					14.6	1.3	4.1	9.2	24.8			
30.0	SAND. Fine to coarse sand, slightly dirty. Very minor gravel to 2 inches.					12.8	1.7	2.4	8.7	40.6			
40.0	SAND. Fine to medium sand, slightly dirty. Minor gravel to 1-3/4 inches.					25.7	1.8	7.5	16.3	39.5			
45.0	SAND. Fine to medium sand, slightly dirty. Very minor trace gravel to 1 inch.											Superior lobe outwash	
57.0	SAND. Fine sand. No gravel.					1.7	0.0	0.5	1.2	32.9			
69.5	SAND & GRAVEL. Fine to very coarse sand, dirty. Gravel to 3-1/2 inches.					37.6	14.7	6.3	16.7	37.1			
70.0	TILL. Clayey, brown to gray.					29.2	6.6	6.2	16.4	55.1			

17.2% + #4

Continued Next Page

LOG A GNNIN08 UMORE PARK DRILLING LOGS.GPJ LOG A GNNIN08.GDT Printed 5/30/08

# DRILLING LOG

## HOLE NO. NN1850

Page 2 of 2

Property: UMore Park Property

Location: City of Rosemount & Empire Township, Dakota County, Minnesota

UTM Zone 15/NAD83/NAVD88  
 494,804.84 mE +/- 0.02 m 4,951,864.17 mN +/- 0.02 m  
 Elevation (ft.): 932.3 +/- 0.1 ft.

Drilling Method: 4x6 Rotasonic Started: 3/25/08 2:05 PM  
 Drilling Contractor: Traut Wells Completed: 3/25/08 3:40 PM  
 Drill Rig: Versasonic Logged By: J.D. Lehr

Ground Water Depth (ft.): Ground water level greater than 60 feet  
 Ground Water Elevation (ft.):

Site: Edge of field road approximately 1.5 feet above natural grade.

DRILLING & SAMPLING					TEST RESULTS (%)				Geologic Interpretation	Economic Classification
Graphic Log	Depth (ft.)	Gravel Per Drill Action	Sample Runs	Sampled Intervals	Total + #4 Sieve	+ 1.5 Inch	1.5 Inch to 3/4 Inch	3/4 Inch to #4 Sieve		

**TILL.** Clayey, brown to gray. (continued)

80.0

852.3

T.D. 80 ft.	80									Till	
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