

Datum: WGS 84 Lat: 38.9440558

Long: -94.7706095

SENESE SW 5-13-24E

HNTB**LOG OF BORING**

BORING NO.

B-12

PAGE

OF

1**2**PROJECT Gateway

STATION / NORTHING / 238805.831

LOCATION Johnson County, Kansas

OFFSET / EASTING / 2230649.133

DATE STARTED 03/27/2012 DATE COMPLETED 03/27/2012SURFACE ELEVATION 987.5 ftEXPLORATION CONTRACTOR TerraconDATUM NAVD 88DRILLER K. KemptonDRILL RIG CME-55 ATV

GROUND WATER LEVELS:

HAMMER TYPE AutoHAMMER EFFICIENCY 79%▽ AT TIME OF DRILLING NATDLOGGED BY L. WagnerREVIEWED BY J. Martens▼ AFTER N/A

DRILLING METHOD	DEPTH (ft)	SAMPLE TYPE NUMBER	SAMPLE RECOVERY (in)	CORE REC % (RQD %)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	GRAPHIC LOG	MATERIAL DESCRIPTION Unified (Visual) Classification System	GEOLOGIC NAME	ELEVATION (ft)
	0									987.5
HSA 3.25" ID								Topsoil		0.3
								Brown to Dark Gray, Very Stiff, LEAN CLAY, Trace Sand and Roots, Moist (CL) (FILL)		985
	5	SPT S1	15		5-7-11 (18)	3.5				6.0
								Brown, Stiff, FAT CLAY, Some Limestone Gravel and Cobbles (CH)		8.0
	9.2	SPT S2	0		50/2"			LIMESTONE, Highly Weathered		9.2
CORE BARREL NQ	10	NQ S2		93% (80%)				LIMESTONE, Gray to Brown, Medium Bedded, Weathered, Moderately Hard, Fossiliferous	Plattsburg LS	979.5
	10.5	NQ C1								11.1
								SHALE, Gray, Laminated, Slightly Weathered, Moderately Hard	Bonner Springs SH	976.4
	15	NQ C2		92% (32%)						975
	15.5									
		NQ C3		98% (43%)				6" Hard, Limey Seam at 17.3'		970
	20							Olive, Weathered at 18'		
	20.5							Olive, Highly Weathered, Soft at 19'		
		NQ C4		100% (80%)				Gray, Weathered, Moderately Hard at 20.5'		965
	25									

(Continued Next Page)

BORING LOG 2 W/O LAB DATA - GATEWAY_TEMPLATE.GDT - 4/6/12 11:20 - O:\55921\GEO\TECH\INT\GEOLOGY BORINGS.GPJ



LOG OF BORING

BORING NO.

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OF

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PROJECT Gateway

STATION / NORTHING / 238805.831

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DRILLING METHOD	DEPTH (ft)	SAMPLE TYPE NUMBER	SAMPLE RECOVERY (in)	CORE REC % (RQD %)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	GRAPHIC LOG	MATERIAL DESCRIPTION Unified (Visual) Classification System	GEOLOGIC NAME	ELEVATION (ft)
	25									
	25.5	NQ C5		100% (82%)				SHALE, Gray, Laminated, Slightly Weathered, Moderately Hard (continued)		960
	30									
	30.5	NQ C6		100% (100%)				SHALE, Gray, Laminated, Slightly Weathered, Moderately Hard		955
	35									
	35.5									
	37.3	NQ C7		100% (83%)				LIMESTONE with Shale Lenses, Gray, Medium Bedded, Slightly Weathered, Moderately Hard, Fossiliferous	Farley LS	950
	40							Moderately Weathered, without Shale Seams at 39.5'		
										40.5

Boring backfilled with Holeplug upon completion.
Auger Refusal at 9.2 feet.
Bottom of borehole at 40.5 feet.