Boring: BR-11-JC

Client	Westinghouse Electric Company
Location:	Hematite, MO
Project:	Hematite Remedial Investigation
Date Started:	08/03/04
Date Finished:	08/09/04
Geologist:	J. Upcraft
Drilling Contractor:	Geotechnology

Drilling Method:	Rotary
Surf. Elev.	430.59
Northing:	865466.99
Easting:	829711.69
Total Depth of Boring:	189.2 feet
Top of Casing:	433.23
Total Depth of Well:	151.4 feet

Elevation (ft)	Depth (ft)	Core Recovery (Pen/Rec)	RQD	Fracture Frequency	Lithology	Lithology Description	Well Construction	Well Construction Desc.
330	100							
		10.0/10.0	89	1		DOLOMITE: gray, very hard, w/wavy green/gray shale laminae		
325	105							
						DOLOMITE: gray, very hard, silty, crystalline, w/sand streaks and lenses		
	110							
320		10.0/10.0	87	0		DOLOMITE: gray, very hard, w/wavy green/gray shale laminae		High Solids Bentonite Grout (Tremied)
	115							
315						DOLOMITE: gray, very hard, sandy, cherty		
						DOLOMITE: gray, very hard, silty, w/green/gray shale laminae		
	120							
310		10.0/10.0	94	0				
	125							
305								0.25" Bentonite Pellets
	130							Secondary Filter Pack (100 Mesh)
300		10.0/10.0	98	0				Primary Filter Pack (10/20 Mesh)
	135							
295						DOLOMITE: gray, very hard, silty to sandy, w/chert nodules and black shale laminae		
	140							
290						DOLOMITE: gray, very hard, sandy, crystalline		
						DOLOMITE: gray, very hard, fine-grained, w/black shale laminae turbid 145.3-146.4'		2" Sch. 80 PVC Screen, 0.010" Slot
	145	10.0/9.8	92	1				
285								
	150							

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Hematite Facility
3300 State Road P
Festus, MO 63028

SAIC
8421 St. John Industrial Drive
St. Louis, Missouri

Client:	Westinghouse Electric Company
Project:	Hematite Remedial Investigation
Location:	Hematite, MO
Borehole:	BR-11-JC
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Boring: BR-11-JC

Client	Westinghouse Electric Company
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Date Started:	08/03/04
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Elevation (ft)	Depth (ft)	Core Recovery (Pen/Rec)	RQD	Fracture Frequency	Lithology	Lithology Description	Well Construction	Well Construction Desc.
280	150					DOLOMITE: gray, very hard, sandy, styolitic	Bottom of Well 151.4'	
		10.0/9.6	83	1		DOLOMITE: gray, very hard, silty, w/black shale laminae		
275	155							
						DOLOMITE: gray, very hard, silty to sandy		
	160							
270						DOLOMITE: gray, hard, micritic, w/black wavy shale laminae		
		10.0/10.0	93	0		DOLOMITE: gray, very hard, silty to sandy chert 163.7-164.1'165.7-166.0'		
265	165							
						DOLOMITE: gray, hard, sandy, pitted		
	170							
260						DOLOMITE: gray, very hard, silty crystalline		
		10.0/10.0	98	0				
255	175							
						DOLOMITE: gray, very hard, fine grained, w/wavy black shale laminae		
	180							
250								
		10.0/10.0	100	0		DOLOMITE: gray, very hard, micritic green shale 188.7-188.8'		
245	185							
						DOLOMITE: gray, very hard, sandy, crystalline		
						Bottom of Hole 189.2'		
240	190							
	195							
235								
	200							

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St. Louis, Missouri

Client:	Westinghouse Electric Company
Project:	Hematite Remedial Investigation
Location:	Hematite, MO
Borehole:	BR-11-JC
Sheet:	4 of 4

Boring: BR-12-JC

Client	Westinghouse Electric Company
Location:	Hematite, MO
Project:	Hematite Remedial Investigation
Date Started:	08/31/04
Date Finished:	09/03/04
Geologist:	T. Calhoun
Drilling Contractor:	Geotechnology

Drilling Method:	Rotary
Surf. Elev.	435.73
Northing:	865546.47
Easting:	826970.02
Total Depth of Boring:	93.5 feet
Top of Casing:	438.25
Total Depth of Well:	90.6 feet

Elevation (ft)	Depth (ft)	Core Recovery (Pen/Rec)	RQD	Fracture Frequency	Lithology	Lithology Description	Well Construction	Well Construction Desc.
435	0					Lithology taken from BR-12-RB OVERBURDEN: Drilled without sampling		Protective Casing (4")
						Overburden: Drilled without sampling 10" air rotary to 39.5' 6" air rotary to 90.6'		2.0' x 2.0' x 0.5' Concrete Pad
								2" Sch 80 PVC Riser
430	5							6" Steel Isolation Casing
425	10							Portland Cement
420	15							
415	20							High Solids Bentonite Grout (Tremied)
						Top of Bedrock 24.5'		
410	25					DOLOMITE: gray to brown, hard slightly weathered, pitted, fractured and broken throughout		
405	30					DOLOMITE: gray, very hard, micritic wavy green shale laminae 31.7-35.3' wavy gray shale laminae 35.3' broken 36.9-37.0'		
400	35							
						NO SAMPLE: 6" Air Rotary		
395	40					DOLOMITE: gray, very hard, silty w/occasional gray shale laminae cherty 46.3-47.2' sandy 47.4-47.9 green shale 57.9-58.1'		
390	45							High Solids Bentonite Grout (Tremied)
	50							

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Client:	Westinghouse Electric Company
Project:	Hematite Remedial Investigation
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Borehole:	BR-12-JC
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Client	Westinghouse Electric Company
Location:	Hematite, MO
Project:	Hematite Remedial Investigation
Date Started:	08/31/04
Date Finished:	09/03/04
Geologist:	T. Calhoun
Drilling Contractor:	Geotechnology

Boring: BR-12-JC

Drilling Method:	Rotary
Surf. Elev.	435.73
Northing:	865546.47
Easting:	826970.02
Total Depth of Boring:	93.5 feet
Top of Casing:	438.25
Total Depth of Well:	90.6 feet

Elevation (ft)	Depth (ft)	Core Recovery (Pen/Rec)	RQD	Fracture Frequency	Lithology	Lithology Description	Well Construction	Well Construction Desc.
385	50							High Solids Bentonite Grout (Tremied)
380	55							
375	60					DOLOMITE: gray, very hard, med. grained, crystalline, turbid, sandy		
370	65					DOLOMITE: gray, hard, fine-grained green shale laminae 61.4-62.3 sandy 66.0-66.6		0.25" Bentonite Pellets Secondary Filter Pack (100 Mesh)
365	70					DOLOMITE: gray, very hard, sandy, cherty		Primary Filter Pack (10/20 Mesh)
360	75					DOLOMITE: gray, very hard, fine-grained broken shale 72.4-72.5' green shale 73.0-76.0' black shale laminae 76.0-79.1' styolites 80.9-81.1' green shale laminae 83.2-84.6' chert 85.8-86.0' wavy green and gray shale lamiae 88.7-91.3' cherty 92.3-92.9'		2" Sch. 80 PVC Screen, 0.010" Slot
355	80							
350	85							
345	90							
340	95					Bottom of Hole 93.5'	Bottom of Well 90.6'	
	100							

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Client:	Westinghouse Electric Company
Project:	Hematite Remedial Investigation
Location:	Hematite, MO
Borehole:	BR-12-JC
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