

Log of Boring No. BRC-SB-27-A

BMI Site - Hydrogeologic Characterization

Henderson, Nevada



Drilling Method: Rotary Sonic
Drilling Equipment: Rotary Sonic
Drilling Contractor: Prosonic Corporation
Driller: Gerardo Chavez

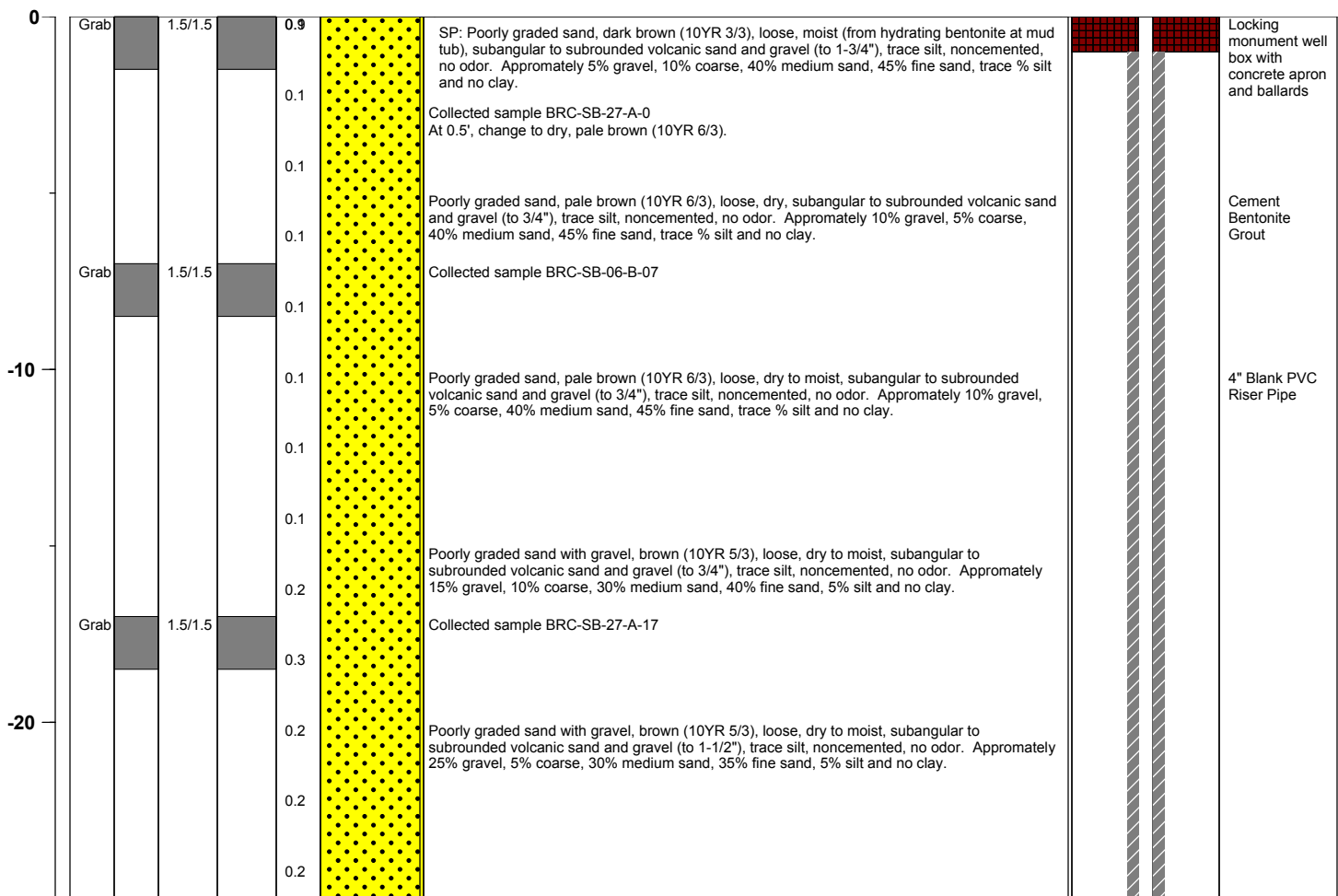
Borehole Total Depth: 400 ft bgs
Borehole Diameter: 8.5"
Boring Location: Location 27 (Well ID: MCF-27)
Depth to Water (ft. bgs): 65.5 ft bgs

Sample Type: Split spoon
Sample Interval: Continuous

Logged By: Jennifer Wiley
Date Started: 6/24/04
Date Completed: 7/01/04

Monitoring Well Construction			
Type of Surface Seal:	Bentonite Grout	Screen Slot Size:	0.010 in
Blank Casing Type/Size:	4" Sch 80 PVC	Top of Screen (ft. bgs):	361.5 ft bgs
Screen Type/Size:	4" Sch 80 PVC	Bottom of Screen (ft. bgs):	381.5 ft bgs
Transition Sand Type:	N/A	Type of Sand Pack:	#2 x 12

Depth Elevation (MSLD)	Sample Type	Sample Interval	Sample Recovery (feet)	Sample Retained for Analysis	PID	Lithology	Soil Description	Well Construction
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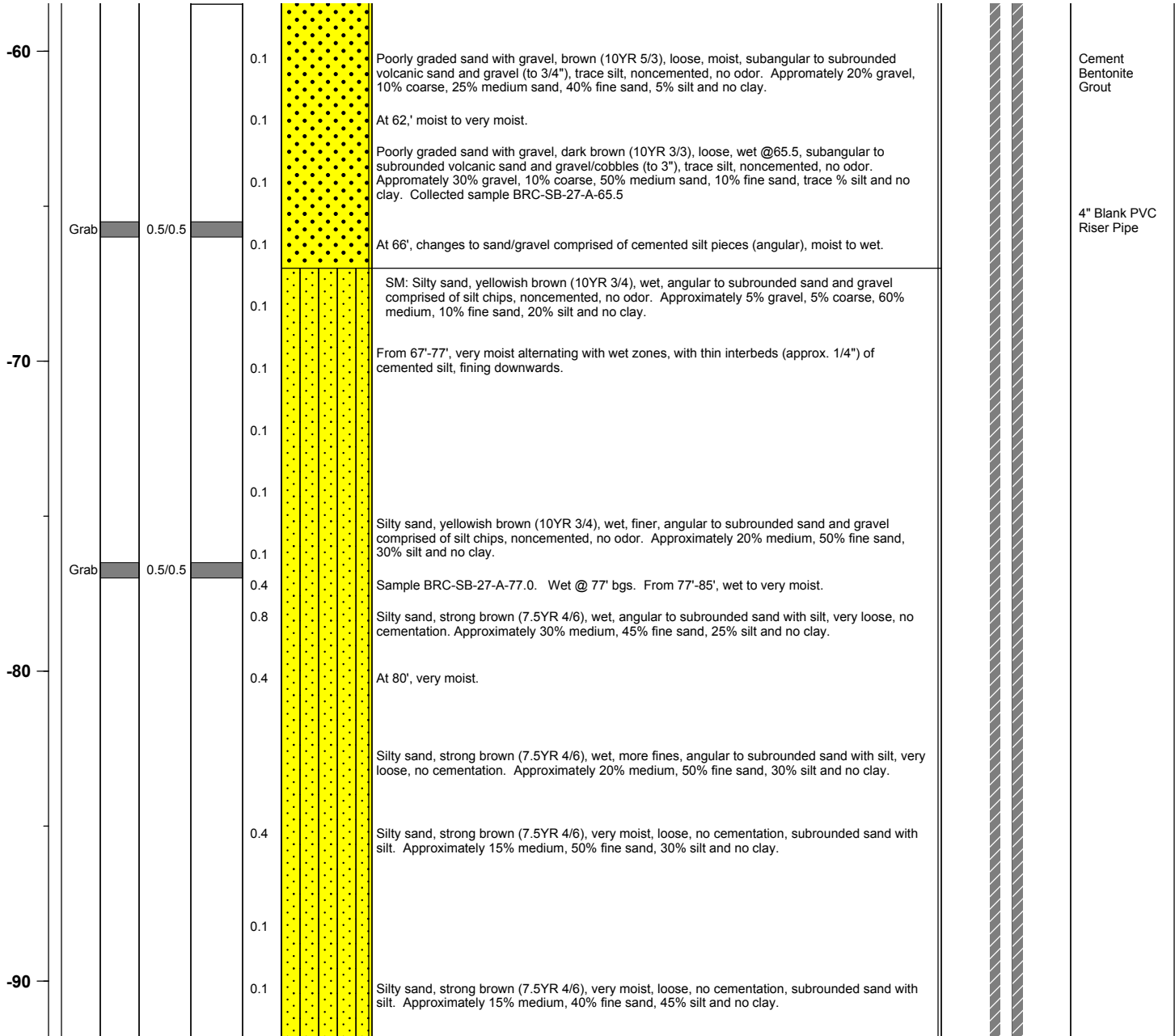
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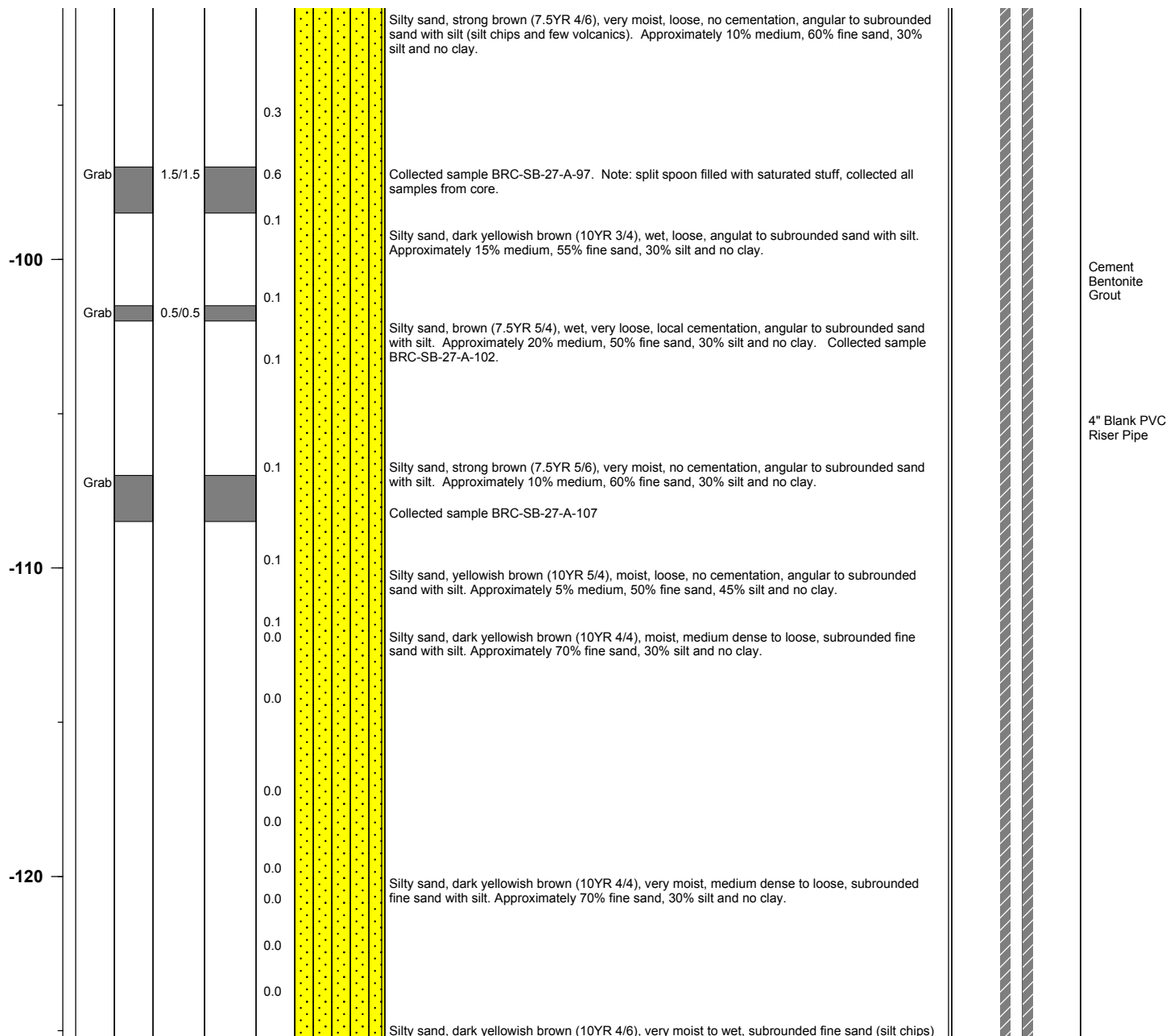
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					0.0		with silt. Approximately 60% fine sand, 40% silt and no clay.	
					0.0			
-130					0.0		Silty sand, dark yellowish brown (10YR 4/6), very moist, sand comprised of silt chips, subrounded fine sand with silt, . Approximately 70% fine sand, 30% silt and no clay.	Cement Bentonite Grout
					0.0			
					0.0		Silty sand, brown (7.5YR 4/4), very moist, subrounded fine sand with silt, medium sand comprised of silt chips, nonplastic . Approximately 25% medium, 30% fine sand, 45% silt and no clay.	4" Blank PVC Riser Pipe
					0.0			
-140					0.0		Silty sand, brown (7.5YR 5/4), very moist, weak local cementation, rounded to subrounded fine sand with silt, medium sand comprised of silt chips, trace clay.. Approximately 30% medium, 30% fine sand, 40% silt and trace % clay.	
					0.0		ML: Sandy silt, brown (7.5YR 5/4), moist, loose, nonplastic to low plasticity fines, very fine sand. Approximately 40% fine sand, 55% silt and 5% clay.	
					0.0		Sandy silt, brown (7.5YR 5/4), medium stiff, moist, fine to medium sand (medium are silt chips), noncemented, no odor, nonplastic to low plasticity, trace clay. Approximately 5% medium, 35% fine sand, 60% silt and trace % clay.	
					0.0			
-150					0.0		Sandy silt, strong brown (7.5YR 4/6), moist to very moist, loose, nonplastic to low plasticity fines, very fine sand to medium sand (silt chips are larger grains). Approximately 10% medium, 35% fine sand, 50% silt and 5% clay.	
					0.0			
					0.0		Sandy silt, strong brown (7.5YR 4/6), moist, noncemented, low plasticity, subrounded very fine sand. Approximately 35% fine sand, 60% silt and 5% clay.	
					0.0			

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-160							<p>Sandy silt, strong brown (7.5YR 4/6), slightly more moisture, noncemented, low plasticity, subrounded very fine sand. Approximately 15% medium sand, 20% fine sand, 60% silt and 5% clay.</p> <p>Silt, brown (7.5YR 5/4), slightly moist, partly indurated with very fine sand. Approximately 15% fine sand, 65% silt and 20% clay.</p>	<p>Cement Bentonite Grout</p> <p>4" Blank PVC Riser Pipe</p>
-170					0.0		<p>Silt, brown (7.5YR 5/4), slightly moist, partly indurated with very fine sand, slightly stiffer, medium plasticity. Approximately 15% fine sand, 65% silt and 20% clay.</p> <p>Clayey silt, brown (7.5YR 4/4), nonplastic to medium plasticity fines with subangular very fine sand. Approximately 10% fine sand, 75% silt and 15% clay.</p>	
-180					0.0		<p>Silt, strong brown (7.5YR 4/6), medium plasticity. Approximately 10% fine sand, 65% silt and 25% clay.</p> <p>Clayey silt, brown (7.5YR 4/4), medium to high plasticity fines, trace very fine sand. Approximately 5% fine sand, 55% silt and 30% clay.</p>	
-190					0.0		<p>Silt, brown (7.5YR 4/4), moist, medium plasticity fines, trace very fine sand. Approximately 5% fine sand, 85% silt and 15% clay.</p>	

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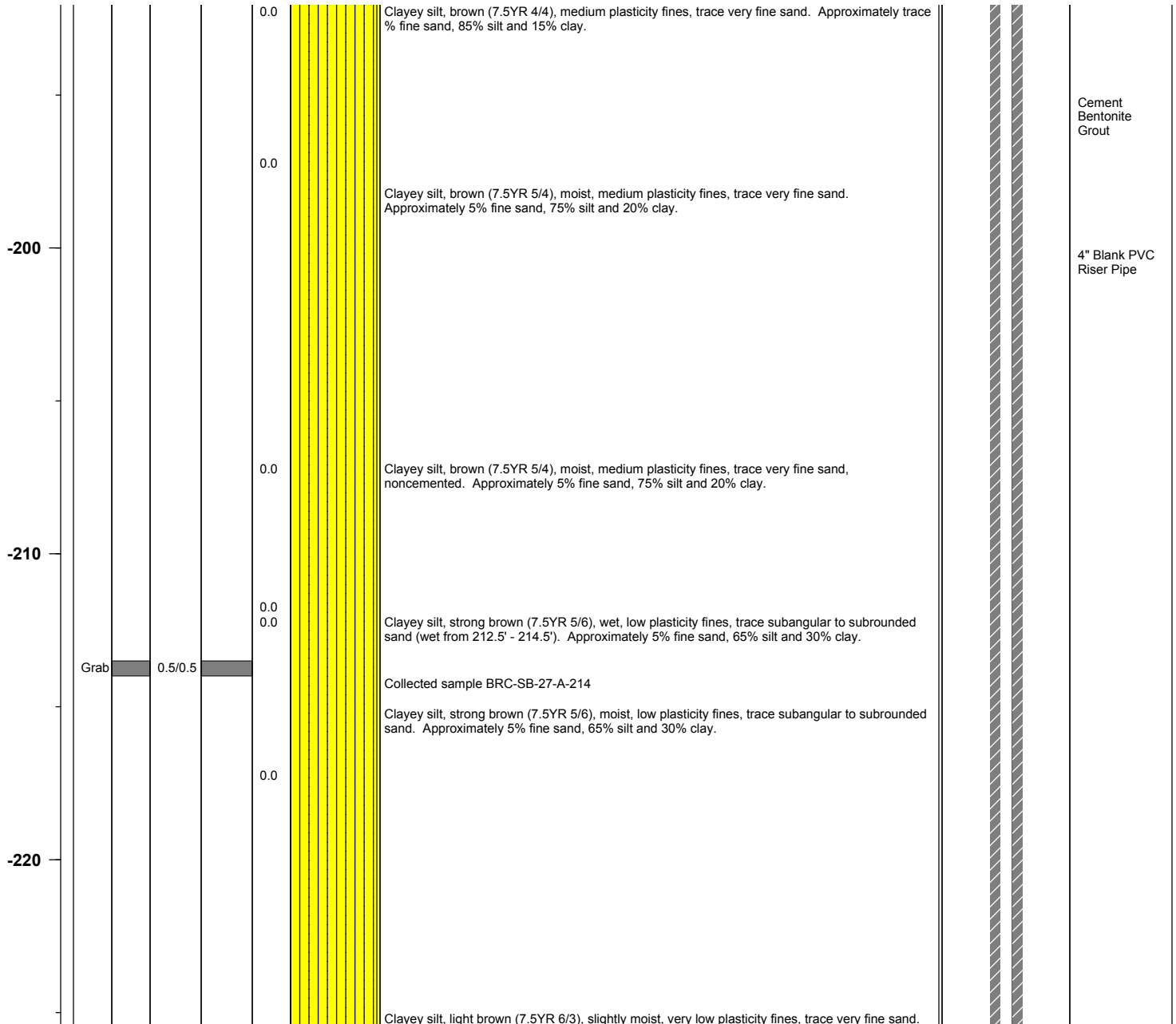
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							Approximately 5% fine sand, 70% silt and 25% clay.	
					0.0		Clayey silt, brown (7.5YR 5/4), moist, low plasticity fines, trace very fine sand. Approximately 5% fine sand, 65% silt and 30% clay.	
-230					0.0		Clayey silt, very pale brown (10YR 7/3), slightly moist, low plasticity, trace sand. Approximately 5% fine sand, 75% silt and 20% clay.	Cement Bentonite Grout
					0.0		Clayey silt, light gray (2.5Y 7/2), very slightly moist, low plasticity, locally partly indurated. Approximately trace % fine sand, 80% silt and 20% clay.	
-240					0.0		Clayey silt, light olive gray (5Y 6/2), moist, medium dense, no cementation, laminated light gray (2.5Y 7/2). Approximately trace % fine sand, 75% silt and 25% clay.	4" Blank PVC Riser Pipe
					0.0		Clayey silt, olive gray (5Y 5/2), slightly moist, medium dense, locally partly indurated. Approximately trace % fine sand, 70% silt and 30% clay.	
-250					0.0		Clayey silt, strong brown (7.5YR 4/6), slightly moist, low to medium plasticity fines. Approximately trace % fine sand, 65% silt and 35% clay.	
					0.0			
					0.0		Clayey silt, brown (7.5YR 4/4), moist, medium dense, low to medium plasticity fines, trace gravel and sand. Approximately trace % gravel, trace % fine sand, 65% silt and 35% clay.	
					0.1		Clayey silt, dark yellowish brown (10YR 4/4), very stiff, moist, trace fine sand, noncemented, no odor, medium plasticity. Approximately trace % fine sand, 60% silt and 40% clay.	
					0.2			

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-260	Grab	0.5/0.5			0.2		SM: Silty sand with clay, brown (10YR 5/3), wet from 259' to 259.5', very moist for remainder, angular to subrounded sand (partially comprised of silt chips, partially mafic sand), small zones of moderate induration, no odor. Approximately 50% medium sand, 20% fine sand, 20% silt and 10% clay. Collected sample BRC-SB-27-A-259	
					0.1		ML: Clayey silt, yellowish brown (10YR 5/4), very stiff, moist, trace fine sand, noncemented, no odor, medium plasticity. Approximately trace % fine sand, 60% silt and 40% clay.	
					0.1			
					0.1			
-270					0.1		Clayey silt, yellowish brown (10YR 5/4), very stiff, moist, trace fine sand, noncemented, no odor, medium plasticity. Approximately trace % fine sand, 60% silt and 40% clay.	
					0.1			
					0.2		Clayey silt, yellowish brown (10YR 5/4), very stiff, moist, trace fine sand, noncemented, no odor, medium plasticity. Approximately 5% fine sand, 60% silt and 35% clay.	
					0.2			
-280					0.2		SM: Silty sand, light yellowish brown (10YR 6/4), moist, fine to medium angular to subrounded sand (silt chips), weak induration, no odor. Approximately 20% medium sand, 50% fine sand, 30% silt and no clay.	
					0.1			
					0.1		ML: Sandy silt, light yellowish brown (10YR 6/4), very stiff, moist, fine to medium angular to subrounded sand (silt chips), weak to moderate induration, no odor, nonplastic. Approximately 15% medium sand, 25% fine sand, 60% silt and no clay.	
					0.1		Sandy silt (with clay), dark yellowish brown (10YR 4/4), soft, fine sand, noncemented, no odor, low plasticity. Approximately 30% fine sand, 60% silt and 10% clay. Collected sample BRC-SB-27-A-284	
	Grab	0.5/0.5			0.4		At 284.5, resume clayey silt (as at 283').	
					0.1		Clayey silt, dark yellowish brown (10YR 4/4), very stiff, moist, trace fine sand, noncemented, no odor, medium to high plasticity. Approximately trace% fine sand, 60% silt and 40% clay.	
					0.1			
-290					0.1		Sandy silt, yellowish brown (10YR 4/4), very stiff, moist, fine sand, noncemented, no odor, nonplastic. Approximately 40% fine sand, 60% silt and no clay.	
					0.1			

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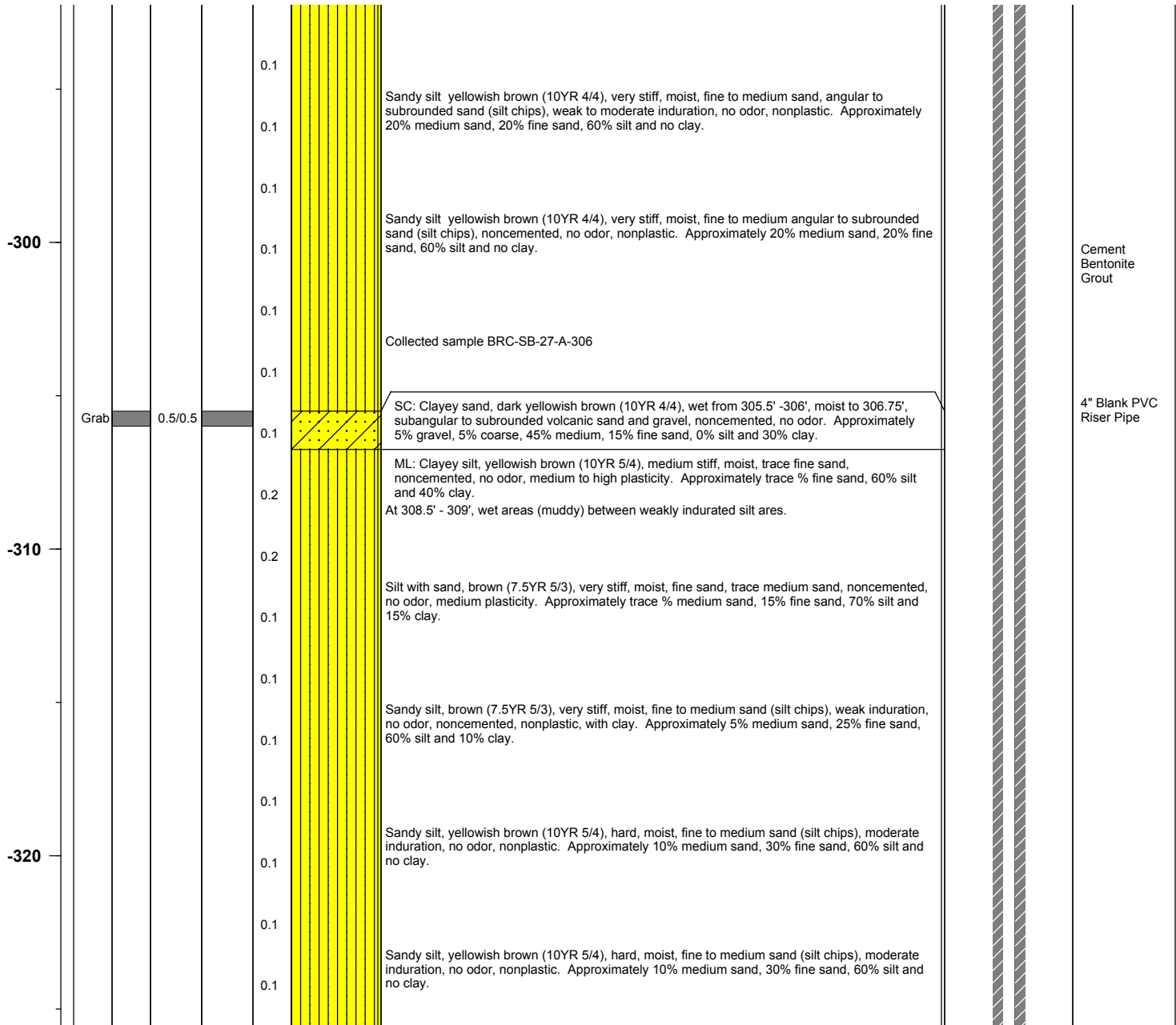
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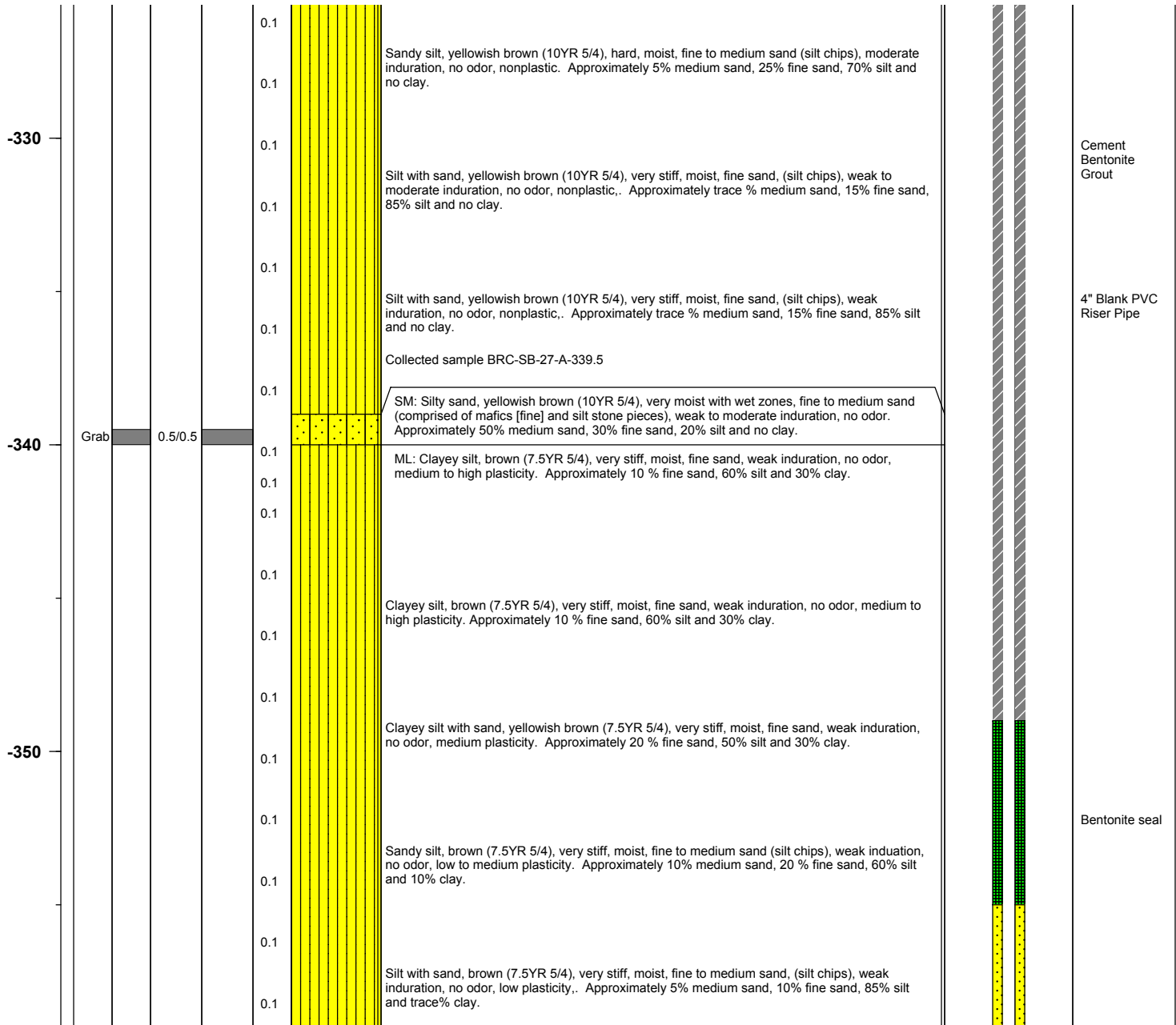
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-360					0.1		SM: Silty sand, brown (7.5YR 5/4), moist to very moist, fine to medium sand (silt chips and volcanic), noncemented, no odor. Approximately 25% medium sand, 60% fine sand, 15% silt and no clay.	
					0.1			
					0.2		Silty sand, brown (7.5YR 5/4), moist to very moist, fine to medium sand (silt chips and volcanic), noncemented, no odor. Approximately 25% medium sand, 60% fine sand, 15% silt and no clay.	
	Grab	0.5/0.5			0.2		Collected sample BRC-SB-27-A-365.5	
					0.1		SP: Poorly graded sand, brown (7.5YR 4/3), wet, fine to coarse sand (volcanics and sandstone pieces), non- to well indurated (rock) in areas, trace silt @ 366.5' - 367', well indurated, very moist @ 367' wet again. Approximately 15% coarse, 55% medium, 30% fine sand, trace% silt, no clay.	#2 x 12 Sand Pack
-370					0.1		SP-SM: Sand with silt, yellowish brown (10YR 5/4), wet, fine to medium sand, (mostly silt/sandstone chips, some volcanics), mostly noncemented, few moderately indurated spots, no odor, trace clay. Approximately 20% medium sand, 70% fine sand, 10% silt, trace % clay.	4" 0.010 Slot PVC screen
					0.1		At 372.5' - 374', very moist with some wet spots, fining.	
					0.1		Sand with silt, yellowish brown (10YR 5/4), wet, fine to medium sand, (mostly silt/sandstone chips, some volcanics), mostly noncemented, few moderately indurated spots, no odor, trace clay. Approximately 20% medium sand, 70% fine sand, 10% silt, trace % clay.	
					0.1		At 375' - 376', moist with wet spots, moderate induration.	
					0.1		SC: Clayey sand with silt, yellowish brown (10YR 4/4), wet, fine to coarse sand, (mostly silt/sandstone pieces, some volcanics), noncemented, no odor, moist only 367' - 368'. Approximately trace % coarse, 20% medium, 50% fine sand, 10% silt and 20% clay.	
-380					0.1		SM: Silty sand, yellowish brown (10YR 4/4), moist, fine to medium sand, (silt chips), non to weak induration, no odor, trace clay. Approximately 10% medium sand, 50% fine sand, 40% silt and trace % clay.	Threaded PVC Well Base Cap
					0.1		ML: Sandy silt, yellowish brown (10YR 4/4), very stiff, moist, weakly to moderate induration, no odor, trace clay, nonplastic. Approximately 5% medium sand, 35% fine sand, 55% silt and 5% clay.	
					0.1		Clayey silt, brown (7.5YR 5/4), very stiff, moist, fine sand, weakly induration, no odor, medium plasticity. Approximately 5 % fine sand, 65% silt and 30% clay.	
					0.1		Silt, brown (7.5YR 5/4), very stiff, moist, fine sand with clay, weakly induration, no odor, nonplastic. Approximately 10% fine sand, 80% silt and 10% clay.	Cement Backfill
-390					0.1			
					0.1		Silt, light brown (7.5YR 6/4), very stiff, moist, fine sand, weak induration, no odor, nonplastic,	

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							trace clay. Approximately 10% fine sand, 85% silt and 5% clay.	
					0.1			
					0.1		Silt, light brown (7.5YR 6/4), very stiff, moist, fine sand, trace clay, weak induration, no odor, nonplastic to low plasticity. Approximately 10% fine sand, 80% silt and 10% clay.	
					0.1			
-400								Cement Bentonite Grout

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