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Slurry Systems INC.
THE DRIVING FORCE SM

FINAL COMPLETION REPORT
FOR
VIBRATED BEAM SLURRY WALL

ENVIRO-CHEM CORPORATION
ZIONSVILLE, IN

PREPARED BY

SLURRY SYSTEMS INC.

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August 2006

Revised September 2006

Slurry Systems, Inc. certifies that its vibrated beam slurry wall installation complies with the Contract Documents, inclusive of its quality control measures. Information in this report relative to the PRGS carrier pipe installation and concrete culvert replacement was supplied by Environ and Slurry Systems, Inc. bears no liability as to its accuracy.

FRED SCHMEDNECHT
REGISTERED
NO. 14141
STATE OF INDIANA
PROFESSIONAL ENGINEER

Background. This report describes Slurry Systems', Inc. (SSI's) thin barrier curtain wall ("TBCW") installation with the vibrated beam at the Enviro-Chem site in Zionsville,IN. The TBCW was designed to use IMPERMIX® slurry with an in situ permeability of 1 x 10^{-7} cm/sec or less. A total of 22,923 square feet of TBCW was constructed from May 15th, 2006 through May 25th, 2006. Slurry Systems, Inc. superintendent for the project was Mr. James Wallace (United Brotherhood of Carpenter's Pile Driver Local 578). Our in-house crane operator was Lyle Prentice (International Union of Operating Engineers Local 150). The Schneider Corporation of Indianapolis, IN performed the surveying work on the site, inclusive of wall-staking and preparation of as-builts.

Appendix A contains the four permeability laboratory results, Appendix B contains field reports, and Appendix C contains the as-built of the TBCW.

Construction Procedure. Site preparation activities, by Handex or Environ on behalf of the Trust, included the following tasks:

- Field location of utilities (SSI did contact IUPPS independently.)
- Confirmation of approved water source & its storage, 20,000 gallons per day
- Set-up of sanitation facilities
- Installing erosion and sedimentation controls, e.g. silt fence
- Installing project sign and safety signs, if required
- Removal of electrical lines per OSHA standards which interfere with our construction of the TBCW
- Construction of dry, level, & stable gravel work platform, 15' to 18' in width, along TBCW alignment, inclusive of a 90' overhead clearance, capable of withstanding heavy equipment loads. The final elevation of the work platform was a minimum of 3 feet above the groundwater table.
- Construction of the 2' x 2' reservoir trench along the TBCW alignment with dams every 50'
- Removal of fence
- Maintaining of decontamination pad, inclusive of managing/disposing of water & used PPE

SSI utilized its Liebherr Crane 853 HD, PTC 60 HD, specially fabricated vibrated beam, and specially fabricated high speed/high sheer colloidal mixing plant during the TBCW construction. The beam was marked every foot for easy identification of actual depth. After the vibrated beam attained its required depth in the Design Report, the beam was extracted at a controlled rate to fill the void left by the beam extraction, creating an in-ground panel of slurry. This process was repeated along the line of the wall, with each beam insertion overlapping the previously inserted panel. The continuous TBCW was created by overlapping each 33-inch beam penetration (panel) by a minimum of 17 inches. The subsequent beam insertions overlap the previous by a total of 17 inches (14

inches of fin, plus 3 inches of I-beam). The proper distance was measured for each beam penetration.

It was intended for SSI to begin continuous wall installation at STA 0+00 and move counterclockwise finishing at STA 10+35.1. To accommodate the Trust and the intended media coverage of the site, SSI made a few site moves as requested. Continuity of the TBCW was ensured through its overlap procedure as mentioned above. Wall verticality was maintained by two principles: (1) the beam was checked prior to each penetration for verticality with a 4-foot hand level, and (2) the beam takes the path of least resistance as it penetrates the ground.

The width of the TBCW was verified by calculation. SSI compared the square foot production in relation to the volume of slurry produced to give an average wall thickness for that day. The wall was required to have a minimum width of 4 inches. The installed TBCW met this criteria, please reference the following table:

Table 1. Slurry Systems, Inc. Vibrated Beam Production Summary

	Avg. Depth (Ft)	Linear Footage		Square Footage		Slurry Volume (Ft3)		Width (In)
Date	Daily	Daily	To Date	Daily	To Date	Daily	To Date	Daily
								calculated
05/15/06	22.04	61.8	61.8	1362.1	1362.1	486	486.0	4.3
05/16/06	21.32	87.2	149.0	1859.1	3221.2	891	1377.0	5.8
05/17/06	19.134	160.3	309.3	3067.2	6288.4	1053	2430.0	4.1
05/18/06	17.74	131.3	440.6	2329.3	8617.6	1053	3483.0	5.4
05/19/06	22.92	156.0	596.6	3575.5	12193.1	1296	4779.0	4.3
05/20/06	26.57	88.6	685.2	2354.1	14547.2	891	5670.0	4.5
05/22/06	25.74	74.3	759.5	1912.5	16459.7	810	6480.0	5.1
05/23/06	21.86	105.1	864.6	2297.5	18757.2	891	7371.0	4.7
05/24/06	23.19	136.4	1001.0	3163.1	21920.3	1134	8505.0	4.3
05/25/06	23.88	42.0	1043.0	1003.0	22923.3	567	9072.0	6.8

All work was performed in Level D with some modifications: ear plugs, safety glasses, hard hats, work boots with over boots and Tyvek suits. The person breaking the bags wore respiratory protection.

In addition to the construction of the TBCW, SSI was contracted to mix additional slurry for the repair of two different areas along the TBCW which accommodated a carrier pipe installation and the replacement of two concrete culvert pipes. These repairs are detailed further:

PRGS Carrier Pipe Installation. A carrier pipe for the permeable reactive gate system (PRGS) system was installed on May 31st, 2006 by others through the TBCW near the Southeastern corner of the Site. The PRGS carrier pipe is 12 inch diameter HDPE, large enough to accommodate the largest conceivable diameter PRGS pipe. The pipe was installed so that the crown is below elevation of 876 feet below mean sea level. A water stop was included near the midpoint of the pipe. The ends are temporarily sealed with end caps. To allow for that installation, the TBCW in this area was excavated, carrier pipe installed, and the TBCW wall was repaired by SSI between 5 and 7 days after initial installation of TBCW. The 5 to 7 day window was selected to ensure a good bond between the original slurry and the new slurry.

The repaired section of the wall was constructed by SSI with the same slurry mixture used to construct the TBCW with an *in situ* permeability of 10^{-7} cm/sec. The repaired section of the wall extended from at least one foot below the invert of the PRGS carrier pipe (EL 875) to the base of the reservoir trench, 2' below current ground surface. The repaired section of the wall extended from the centerline of the carrier pipe to a distance of at least 3 feet on either side of the center line of the pipe and from the centerline of the original TBCW to a distance of at least 3 feet on either side of the original wall.

Concrete Culvert Pipe Replacement. The TBCW needed to cross two existing concrete culvert pipes near the southwest corner of the Site. The concrete culvert pipes were temporarily removed by Handex where the intersection occurs. After SSI constructed the TBCW wall through this area, the TBCW was excavated by Handex for the replacement of the two concrete culvert pipes. The new concrete pipe replacement sections were installed on May 31st, 2006. The west side was fit into the existing pipe with a new rubber gasket. The west end was attached to the existing pipe using a metal sleeve with butyl adhesive sealant around and between the metal sleeve and the new & old sections.

The TBCW wall was repaired by SSI between 5 and 7 days after initial installation of TBCW. The repaired section of the wall was constructed by SSI with the same slurry mixture used to construct the TBCW with an *in situ* permeability of 10^{-7} cm/sec. The repaired section of the wall extended from at least one foot below the invert of the two concrete culvert pipes to the base of the reservoir trench. The repaired section of the wall extended from the centerline of each concrete culvert pipe outward to a distance of at least 3 feet and from the centerline of the original TBCW to a distance of at least 5 feet on either side of the original wall. The space between the two concrete culvert pipes was also filled with the same slurry mixture used to construct the TBCW.

After the completion of the TBCW operations, all remaining material and slurry was removed from the ground surface in the construction area, including the mixing areas.

Handex or Environ on behalf of the Trust was responsible to complete the following activities:

- Removal of work platform, if desired
- Repair to cap of the existing land treatment cell, if required
- Proper disposal of decontamination water & PPE
- Replacement of fence that was taken down for TBCW construction
- Removal of silt fence
- Construction of cap for the TBCW, inclusive of excavation for the cap & its backfilling
- Reconnection of the electrical lines
- Installation of piezometers

Slurry. The IMPERMIX® slurry was mixed in a 3yd^3 mixing plant manufactured by SSI located on the job site and the materials, subsequently, were deposited directly into their final *in situ* position. Per 3yd^3 batch, the following materials were used:

- Attapulgite Clay, 300# (50#/bag, therefore, 6 bags)
- Slag Cement, 560# (80#/bag, therefore, 7 bags)
- Water, approx. 580 gallons

The IMPERMIX® slurry when mixed achieved:

SUBJECT	STANDARD	TYPE OF TEST	MINIMUM TESTING FREQUENCY	SPECIFIED VALUE
IMPERMIX® - as mixed	API RP 13B	Field Tests (daily batchplant reports):		
		Density (lbs/ft^3)	Every 20,000 gallons or twice daily (whichever is greater)	68 to 75 lbs/ft3
		Viscosity, Marsh (seconds)		Greater than or equal to 35 seconds
Slurry-In Wall	Hydraulic conductivity	Laboratory Test (final completion report): ASTM D 5084	every 300 LF of wall	Less than or equal to 1x10-7 cm/sec, after 60 days of setting

The samples for the field tests were taken at the mixing plant directly from the holding tank. The samples for the laboratory tests were taken at the beam from the slurry bypass.

Geo-Testing Services, Inc. of Totowa, NJ was the laboratory which performed the permeability tests. Samples were taken at 1+45, 4+50, 7+14, and 10+40. The results are as follows:

Sample I.D.	Permeability
1+45	3.4×10^{-9} cm/sec
4+50	3.6×10^{-9} cm/sec
7+14	2.6×10^{-9} cm/sec
10+50	1.8×10^{-8} cm/sec

Please reference Appendix A for the "Summary of Laboratory Permeability Test Performed on Cured Samples" and each individual permeability test.

Submittals. SSI submitted all of its pre-construction submittals with proper approval, inclusive of Construction Work Plan, Work Schedule, Site Specific Health & Safety Plan, and IMPERMIX® Supplier & Material Specifications. In addition, SSI submitted all of its contractor construction submittals, inclusive of laboratory tests (included herein with this report), field tests (on daily reports), trench bottom profiles (on daily reports) and *material certifications (available as shipped to project).* This report is the final completion report which is the only post construction submittal required.

SSI kept detailed and accurate records of the mixing plant and vibrated beam production during installation of the TBCW. The Daily Work Reports required the signature of the Trust Engineer's on-site representative. Copies of the following reports are attached as Appendix B, which were submitted in the field to the Trust Engineer's on-site representative:

- Daily Work Report
- Daily Vibrated Beam Production*
- *Daily Batchplant Production*
- Vibrated Beam Production Summary (not daily)
- Material Control (not daily)

* Production records during driving of the vibrated beam included an accurate record of the total penetration depth of each beam drive, maximum depth of penetration of each beam, a record of the driving pressure, and changes in slurry pressure versus depth for each beam.

Appendix C contains the as-built for the plan view of the slurry wall, as well as the existing profile at the TBCW line.

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THE DRIVING FORCE SM

APPENDIX A:
LABORATORY PERMEABILITY TEST RESULTS

FINAL COMPLETION REPORT
FOR
VIBRATED BEAM SLURRY WALL

ENVIRO-CHEM CORPORATION
ZIONSVILLE, IN

Project No.: 31737881 File: UDPRM1.XLS

SUMMARY OF LABORATORY PERMEABILITY TESTS PERFORMED ON CURED SAMPLES

BORING NO.	WATER CONTENTS	TOTAL UNIT WGTS	DRY UNIT WGTS	STRESSES	DURING CONSOL.	DURING TEST	COEFFICIENT OF PERM. K, @ 20° C	REMARKS
	INITIAL	INITIAL	INITIAL	EFFECTIVE	TIME	PERMEANT		
	PRE-TEST (%)	PRE-TEST (pcf)	PRE-TEST (pcf)	BACK PRESSURE (psi)	VOLUMETRIC STRAIN (days, %)	INITIAL GRADIENT	(cm/sec)	
1+45	447.1	69.7	12.7	10.0	Overnight	tap water	3.4E-9	P7783
	446.8	70.6	12.9	100.0	1.4	26		
4+50	443.1	69.7	12.8	10.0	Overnight	tap water	3.6E-9	P7784
	442.6	70.6	13.0	100.0	1.4	23		
7+14	421.0	69.7	13.4	10.0	Overnight	tap water	2.6E-9	P7782
	420.6	71.2	13.7	100.0	2.2	25		
10+40	410.8	70.0	13.7	10.0	Overnight	tap water	1.8E-8	P7785
	410.5	71.2	14.0	100.0	1.8	23		

Prepared by: RV Reviewed by: GET Date: 7/18/2006

PERMEABILITY TEST: FALLING HEAD - CONSTANT VOLUME U-TUBE

ASTM D 5084 - 90

Project No.: 31737881 | BORING: 1+45 | Test No.: P7783

Project Name: Slurry Systems | SAMPLE: 5/23/2006 | DEPTH (ft):

Specimen - Apparatus set-up - Test Information | Cell No. 6 | Apparatus No. 2 | Stage No.: 3

Preliminary Length/Area Calculations

Lo =	4.002	in	Lo=	10.165	cm
dLc=	0.030	in	Ao =	45.57	cm^2
Lc=	3.972	in	Vo =	463.20	cm^3
			Lc=	10.088	cm
dVc = 3 Vo * (dLc/Lo)			dVc=	10.52	cm^3
			Vc =	452.68	cm^3
Sc =	0.225	cm^{-1}	Ac=	44.873	cm^2

1) Specimen Tested in :	x	Triaxial Cell or		Compaction Mold or
	x	with stones or		Stones with filter paper or top + bottom
2) Specimen orientation for:	x	Vertical or		Horizontal permeability determination
3) During saturation: Water flushed up sides of specimen to remove ai	x	No		Yes
4) During consolidation:	x	Top and bottom drainage or		Top / Bottom only
5) Direction of permeant :	x	Up during or		Down during permeation
6) Permeant: water used	x	Tap		Distilled
or		Demineralized		0.005 N calcium sulfate (CaSO4)

Equations Used

Kt = - 0.0000746 * Sc/dT(min) * ln (ho/hf)

RT = (-0.02452*(ave. temp in C) + 1.495)

K @ 20 °C = RT * Kt TubeC= 1.3214

Consol Stage-Trial No.	Temp. °C	Date	Time hr	Time min	Time sec	Initial σ_c psi	Initial Ub psi	U-tube Reading Head (cm) (cc)	U-tube Reading Tail (cm) (cc)	Flow in/out gradient	Permeability Preliminary Final at 20°C cm/sec Dev. from Ave.
initial	22.5	7/7/06	10	11	00	110.0	100.0	61.94	42.37	0.91	4.06E-09
final	23.0	7/7/06	13	43	00			61.20	42.63		3.77E-09
1	RT = 0.937	dT =	212.00 min			σ'_c =	1.4 ksf	0.055	0.060	io= 24.4	13%
initial	23.0	7/7/06	13	46	00	110.0	100.0	62.60	42.17	0.95	3.63E-09
final	23.0	7/7/06	17	23	00			61.89	42.41		3.36E-09
2	RT = 0.931	dT =	217.00 min			σ'_c =	1.4 ksf	0.053	0.056	io= 25.5	0%
initial	23.0	7/7/06	17	25	00	110.0	100.0	63.27	41.90	0.97	3.20E-09
final	22.1	7/10/06	09	20	00			54.88	44.67		2.99E-09
3	RT = 0.942	dT =	3835.00 min			σ'_c =	1.4 ksf	0.624	0.641	io= 26.6	-11%
initial	22.1	7/10/06	09	30	00	110.0	100.0	62.97	42.03	0.74	3.51E-09
final	22.7	7/10/06	13	03	00			62.28	42.33		3.29E-09
4	RT = 0.946	dT =	213.00 min			σ'_c =	1.4 ksf	0.051	0.069	io= 26.1	-2%

TEST SUMMARY

Final Specimen and Test Conditions

Lc =	10.088	cm	ε_{axial} =	0.8%
Ac =	45.253	cm^2		
Vc=	456.52	cm^3	ε_{vol} =	1.4%
Sc =	0.223	cm^{-1}	Sc = Lc / Ac , final	

	w (%)	γ_t (pcf)	γ_d (pcf)	S (%)
Initial	447.14	69.7	12.7	98.5
PreTest	446.77	70.6	12.9	100.0

HYDRAULIC CONDUCTIVITY SUMMARY

Averages for trials: 1-4

ave K @ 20 °C: **3.35E-09** cm/sec

(i_o)ave = 25.6

Tested By: DT Reviewed By: G. Thomas

PERMEABILITY TEST: FALLING HEAD - CONSTANT VOLUME U-TUBE

ASTM D 5084 - 90

Project No.: 31737881 | BORING: 4+50 | Test No.: P7784

Project Name: Slurry Systems | SAMPLE: 5/20/06 | DEPTH (ft):

Specimen - Apparatus set-up - Test Information | Cell No. 3 | Apparatus No. 3 | Stage No.: 3

Preliminary Length/Area Calculations

Lo =	3.997	in	Lo=	10.151	cm
dLc=	0.028	in	Ao =	45.43	cm^2
Lc=	3.969	in	Vo =	461.19	cm^3
			Lc=	10.080	cm
dVc = 3 Vo * (dLc/Lo)			dVc=	9.69	cm^3
			Vc =	451.50	cm^3
Sc =	0.225	cm^{-1}	Ac=	44.790	cm^2

1) *Specimen Tested in :*	x	Triaxial Cell or		Compaction Mold or	
	x	with stones or		Stones with filter paper or	top + bottom
2) Specimen orientation for:	x	Vertical or		Horizontal permeability determination	
3) During saturation: Water flushed up sides of specimen to remove ai			x	No	Yes
4) During consolidation:	x	Top and bottom drainage or		Top	Bottom only
5) Direction of permeant :	x	Up during or		Down during permeation	
6) Permeant: water used	x	Tap		Distilled	
or		Demineralized		0.005 N calcium sulfate (CaSO4)	

Equations Used

Kt = - 0.0000755 * Sc/dT(min) * ln (ho/hf)

RT = (-0.02452*(ave. temp in C) + 1.495)

K @ 20 °C = RT * Kt TubeC= 1.3132

Consol Stage-Trial No.	Temp. °C	Date	Time hr	Time min	Time sec	Initial σ_c psi	Initial Ub psi	U-tube Reading Head (cm) (cc)	U-tube Reading Tail (cm) (cc)	Flow in/out gradient	Permeability Preliminary Final at 20°C cm/sec Dev. from Ave.
initial	22.5	7/7/06	10	12	00	110.0	100.0	64.75	47.09	0.98	4.60E-09
final	23.0	7/7/06	13	44	00			64.00	47.33		4.28E-09
1	RT = 0.937	dT =	212.00 min			σ'_c =	1.4 ksf	0.056	0.057	io= 22.0	18%
initial	23.0	7/7/06	13	47	00	110.0	100.0	65.02	46.98	0.84	4.39E-09
final	23.0	7/7/06	17	24	00			64.27	47.26		4.06E-09
2	RT = 0.931	dT =	217.00 min			σ'_c =	1.4 ksf	0.056	0.067	io= 22.5	12%
initial	23.0	7/7/06	17	26	00	110.0	100.0	65.80	46.74	0.99	3.39E-09
final	22.1	7/10/06	09	21	00			58.03	49.20		3.17E-09
3	RT = 0.942	dT =	3835.00 min			σ'_c =	1.4 ksf	0.581	0.587	io= 23.8	-13%
initial	22.1	7/10/06	09	30	00	110.0	100.0	65.74	46.77	1.12	3.19E-09
final	22.7	7/10/06	13	04	00			65.17	46.93		3.00E-09
4	RT = 0.946	dT =	214.00 min			σ'_c =	1.4 ksf	0.043	0.038	io= 23.7	-17%

TEST SUMMARY

Final Specimen and Test Conditions

Lc =	10.080	cm	ε_{axial} =	0.7%
Ac =	45.123	cm^2		
Vc=	454.85	cm^3	ε_{vol} =	1.4%
Sc =	0.223	cm^{-1}	Sc = Lc / Ac , final	

	w (%)	γ_t (pcf)	γ_d (pcf)	S (%)
Initial	443.13	69.7	12.8	98.6
PreTest	442.65	70.6	13.0	100.0

HYDRAULIC CONDUCTIVITY SUMMARY

Averages for trials: 1-4

ave K @ 20 °C: **3.63E-09** cm/sec

(i_o)ave = 23.0

Tested By: DT Reviewed By: G. Thomas

PERMEABILITY TEST: FALLING HEAD - CONSTANT VOLUME U-TUBE

ASTM D 5084 - 90

Project No.: 31737881 | BORING: 7+14 | Test No.: P7782

Project Name: Slurry Systems | SAMPLE: 5/18/2006 | DEPTH (ft):

Specimen - Apparatus set-up - Test Information | Cell No. P-3 | Apparatus No. 1 | Stage No.: 3

Preliminary Length/Area Calculations

Lo =	4.000	in	Lo=	10.161	cm
dLc=	0.044	in	Ao =	45.41	cm^2
Lc=	3.956	in	Vo =	461.35	cm^3
			Lc=	10.049	cm
dVc = 3 Vo * (dLc/Lo)			dVc=	15.22	cm^3
			Vc =	446.13	cm^3
Sc =	0.226	cm^{-1}	Ac=	44.396	cm^2

1) Specimen Tested in :	x	Triaxial Cell or		Compaction Mold or	
	x	with stones or		Stones with filter paper or	top + bottom
2) Specimen orientation for:	x	Vertical or		Horizontal permeability determination	
3) During saturation: Water flushed up sides of specimen to remove ai			x	No		Yes
4) During consolidation:	x	Top and bottom drainage or		Top		Bottom only
5) Direction of permeant :	x	Up during or		Down during permeation	
6) Permeant: water used	x	Tap		Distilled	
or		Demineralized		0.005 N calcium sulfate (CaSO4)	

Equations Used

Kt = - 0.0000757 * Sc/dT(min) * ln (ho/hf)

RT = (-0.02452*(ave. temp in C) + 1.495)

K @ 20 °C = RT * Kt TubeC= 1.3127

Consol Stage-Trial No.	Temp. °C	Date	Time hr	Time min	Time sec	Initial σ_c psi	Initial Ub psi	U-tube Reading Head (cm) (cc)	U-tube Reading Tail (cm) (cc)	Flow in/out gradient	Permeability Preliminary Final at 20°C cm/sec Dev. from Ave.
initial	22.5	7/7/06	10	10	00	110.0	100.0	56.96	38.38	0.77	3.57E-09
final	23.0	7/7/06	14	17	00			56.25	38.67		3.31E-09
1	RT = 0.937	dT =	247.00 min			σ'_c =	1.4 ksf	0.053	0.069	io= 23.2	27%
initial	23.0	7/7/06	14	19	00	110.0	100.0	57.50	38.27	0.99	3.89E-09
final	23.0	7/7/06	17	23	00			56.90	38.46		3.58E-09
2	RT = 0.931	dT =	184.00 min			σ'_c =	1.4 ksf	0.045	0.046	io= 24.1	37%
initial	23.0	7/7/06	17	25	00	110.0	100.0	58.35	38.00	0.98	2.07E-09
final	22.1	7/10/06	09	19	00			52.59	39.83		1.93E-09
3	RT = 0.942	dT =	3834.00 min			σ'_c =	1.4 ksf	0.432	0.438	io= 25.5	-26%
initial	22.1	7/10/06	09	29	00	110.0	100.0	58.56	37.93	0.94	1.72E-09
final	22.1	7/10/06	13	00	00			58.23	38.04		1.62E-09
4	RT = 0.953	dT =	211.00 min			σ'_c =	1.4 ksf	0.025	0.026	io= 25.8	-38%

TEST SUMMARY

Final Specimen and Test Conditions

Lc =	10.049	cm	ε_{axial} =	1.1%
Ac =	44.910	cm^2		
Vc=	451.29	cm^3	ε_{vol} =	2.2%
Sc =	0.224	cm^{-1}	Sc = Lc / Ac , final	

	w (%)	γ_τ (pcf)	γ_d (pcf)	S (%)
Initial	420.99	69.7	13.4	97.7
PreTest	420.58	71.2	13.7	100.0

HYDRAULIC CONDUCTIVITY SUMMARY

Averages for trials: 1-4

ave K @ 20 °C: **2.61E-09** cm/sec

(i_o)ave = 24.6

Tested By: DT Reviewed By: G. Thomas

PERMEABILITY TEST: FALLING HEAD - CONSTANT VOLUME U-TUBE

ASTM D 5084 - 90

Project No.: 31737881 | BORING: 10+40 | Test No.: P7785

Project Name: | SAMPLE: 5/16/2006 | DEPTH (ft):

Specimen - Apparatus set-up - Test Information | Cell No. H-5 | Apparatus No. 4 | Stage No.: 3

Preliminary Length/Area Calculations

Lo =	3.754	in	Lo=	9.536	cm
dLc=	0.022	in	Ao =	45.45	cm^2
Lc=	3.732	in	Vo =	433.39	cm^3
			Lc=	9.480	cm
dVc = 3 Vo * (dLc/Lo)			dVc=	7.62	cm^3
			Vc =	425.77	cm^3
Sc =	0.211	cm^{-1}	Ac=	44.911	cm^2

1) Specimen Tested in :	x	Triaxial Cell or		Compaction Mold or	
	x	with stones or		Stones with filter paper or	top + bottom
2) Specimen orientation for:	x	Vertical or		Horizontal permeability determination	
3) During saturation: Water flushed up sides of specimen to remove ai			x	No	Yes
4) During consolidation:	x	Top and bottom drainage or		Top	Bottom only
5) Direction of permeant :	x	Up during or		Down during permeation	
6) Permeant: water used	x	Tap		Distilled	
or		Demineralized		0.005 N calcium sulfate (CaSO4)	

Equations Used

Kt = - 0.0000750 * Sc/dT(min) * ln (ho/hf)

RT = (-0.02452*(ave. temp in C) + 1.495)

K @ 20 °C = RT * Kt TubeC= 1.3181

Consol Stage-Trial No.	Temp. °C	Date	Time hr	Time min	Time sec	Initial σ_c psi	Initial Ub psi	U-tube Reading Head (cm) (cc)	U-tube Reading Tail (cm) (cc)	Flow in/out gradient	Permeability Preliminary Final at 20°C cm/sec Dev. from Ave.
initial	22.5	7/7/06	10	13	00	110.0	100.0	62.48	44.66	1.00	1.82E-08
final	23.6	7/7/06	11	54	00			61.00	45.13		1.69E-08
1	RT = 0.930	dT =	101.00 min			σ'_c =	1.4 ksf	0.110	0.110	io= 23.6	-7%
initial	23.6	7/7/06	11	56	00	110.0	100.0	62.59	44.63	0.95	2.03E-08
final	23.0	7/7/06	13	21	00			61.18	45.10		1.88E-08
2	RT = 0.924	dT =	85.00 min			σ'_c =	1.4 ksf	0.105	0.110	io= 23.8	4%
initial	23.0	7/7/06	13	24	00	110.0	100.0	62.32	44.72	1.01	2.05E-08
final	23.0	7/7/06	16	34	00			59.40	45.64		1.91E-08
3	RT = 0.931	dT =	190.00 min			σ'_c =	1.4 ksf	0.218	0.216	io= 23.3	6%
initial	23.0	7/7/06	16	36	00	110.0	100.0	62.10	44.79	0.99	1.91E-08
final	23.0	7/7/06	17	37	00			61.17	45.09		1.77E-08
4	RT = 0.931	dT =	61.00 min			σ'_c =	1.4 ksf	0.069	0.070	io= 23.0	-2%

TEST SUMMARY

Final Specimen and Test Conditions

Lc =	9.480	cm	ε_{axial} =	0.6%
Ac =	44.909	cm^2		
Vc=	425.75	cm^3	ε_{vol} =	1.8%
Sc =	0.211	cm^{-1}	Sc = Lc / Ac , final	

	w (%)	γ_t (pcf)	γ_d (pcf)	S (%)
Initial	410.78	70.0	13.7	98.2
PreTest	410.46	71.2	14.0	100.0

HYDRAULIC CONDUCTIVITY SUMMARY

Averages for trials: 1-4

ave K @ 20 °C: **1.81E-08** cm/sec

(i_o)ave = 23.4

Tested By: DT Reviewed By: G. Thomas

Slurry Systems INC.
THE DRIVING FORCE SM

APPENDIX B:
FIELD REPORTS

FINAL COMPLETION REPORT
FOR
VIBRATED BEAM SLURRY WALL

ENVIRO-CHEM CORPORATION
ZIONSVILLE, IN

Slurry Systems, Inc. Daily Work Report No. 1

Job No. 026-05VBS-IN
Date 5/10/06
Page ____ of ____

SU M TU (W) TH F SA

Daily Notes

ARRIVED on site, Rec'd one LOAD, STARTED RUNNING Hoses, setting up Batch Plant
Rig ARRIVED 2:30pm unloaded Rig
HIRED HANDY men, TWO STARTED 10:AM TO 3:30pm
one LABOR, one oiler, SHUT DOWN 4:30,
Trailer with Tools DID NOT ARRIVE.

Vibrated Beam Production

ITEM	NEW	REDO	TOTAL
Linear Feet			
Average Depth			
Square Feet			
Slurry Cubic Feet			

Start Station (from Plans)	
Stop Station (from Plans)	

Labor

POSITION	Hrs/Day	QTY.	Total Hrs
Foreman	8/1	1	8
Pile Driver	8/1	2	16
LABOR	5.5/1	1	5.5
oiler	5.5/1	1	5.5
oper.	8/1	2	16

Rented Equipment

TYPE	Hrs/Day	QTY.	Total Hrs

PROJECT FOREMAN: [signature]

APPROVED BY: _____

Slurry Systems, Inc. Daily Work Report No. 2

Job No. 026-05VBS-IN
Date 5/11/06 SU M TU W (TH) F SA
Page 1 of

Daily Notes

United on site at 7:00 Am Refused Delivery, was 8½ ton small Rig, Should Have Been 30 Ton Picker, call RH Martin order 30 Ton will Be Delivered on Friday morning RSC Drop off Forklift 7:00 Am Hrs. 339. Put Boom In Rig, Started unloading Trailers, Deck one Trailer For Pick up, Put Leads Together, Pulled sheves out For Block, mounted Brkt. For Platform. Recived last load From yard.

Recived Crane 30 Ton Rig 4224.4 Hrs.
Handdex is Pulling There men out
one Left at 12:00 other at 5:00

Vibrated Beam Production

ITEM	NEW	REDO	TOTAL
Linear Feet			
Average Depth			
Square Feet			
Slurry Cubic Feet			

Start Station (from Plans)	
Stop Station (from Plans)	

Labor

POSITION	Hrs/Day	QTY.	Total Hrs
Foreman	9.5/1	1	9.5
Pile Driver	9.5/1	2	19
Labor	9.5/1	2	14.5
oper	9.5/1	2	19

Rented Equipment

TYPE	Hrs/Day	QTY.	Total Hrs
Forklift		1	

PROJECT FOREMAN: J Wallace

APPROVED BY:

Slurry Systems, Inc. Daily Work Report No. 3

Job No. 026-05VBS-IN
Date 5/12/06 SU M TU W TH (F) SA
Page 1 of

Daily Notes

Recieved 2 Loads Cement, unloaded last Load from yard, Hung Plat Form & set Power Pack. Pin Boom To leads & weaved cable. stood up Leads Hung spotter, Ran out cable for Hoses.

Clay will Be Here monday 2:00am

Donna has another man for monday Phil millins for Batch Plant

Call off Rig, verbal mark with RH Martin Hrs. 4225.2 (4:00 pm)

Bob get .5 hr. grease Time

Vibrated Beam Production

ITEM	NEW	REDO	TOTAL
Linear Feet			
Average Depth			
Square Feet			
Slurry Cubic Feet			

Start Station (from Plans)	
Stop Station (from Plans)	

Labor

POSITION	Hrs/Day	QTY.	Total Hrs
Foreman	9.5/1	1	9.5
Pile Drivers	9.5/1	2	19
oper	9.5/1		19

Rented Equipment

TYPE	Hrs/Day	QTY.	Total Hrs
GEHL	9.5/1	1	9.5
Grove	9.5/1	1	9.5

PROJECT FOREMAN: [signature]

APPROVED BY:

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Slurry Systems, Inc. Daily Work Report No. 4

Job No. 026-05VBS-IN
Date 5/13/06 SU M TU W TH F SA
Page 1 of

Daily Notes

INSTALL HEAD, BOLTED HEAD ON, HUNG GUIDE BOX, HUNG HOSES, INSTALL BEAM, HAD PROBLEMS WITH RIG, FIX + CONTINUE SET UP, MOUNTED AUGER HOOK PROSSER PUMP UP. WIRE IN GEN. READY FOR MONDAY START

Vibrated Beam Production

ITEM	NEW	REDO	TOTAL
Linear Feet			
Average Depth			
Square Feet			
Slurry Cubic Feet			

Start Station (from Plans)	
Stop Station (from Plans)	

Labor

POSITION	Hrs/Day	QTY.	Total Hrs
Foreman	8.5/1	1	8.5
Pile Drivers	8.5/1	2	17
Oper	8.5/1	2	17

Rented Equipment

TYPE	Hrs/Day	QTY.	Total Hrs
GeHL	8.5/1	1	8.5

PROJECT FOREMAN: [signature]

APPROVED BY:

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Slurry Systems, Inc. Daily Work Report No.____

Job No. 026-05VBS-IN
Date 5-15-06
Page 1 of ____

SU (M) TU W TH F SA

Daily Notes

HAD Problem with Lyle not Having oiler & oper on Batch Plant, CALL Local 841 TALK TO DAVE HALL BA. sending oiler out Tomorrow, Pulling Phil on permit, 20min SAFETY MEETING IN MORNING, STARTED MIXING, got STARTED DRIVING 12:30. HAD Problems with AUGER HAD TO FIX, GROUND WATER BROKE THREW PUGS IN PIPES HAD TO DAM up. DROVE SOUTH 14 FT, TURN AROUND DROVE BACK NORTH TOO MAKE TIE END, HAVE TO REMOVE FRENCE SO WE CAN FINISH TIE END

Grove Pick up 7:30 AM

Vibrated Beam Production

ITEM	NEW	REDO	TOTAL
Linear Feet	61.8"		
Average Depth	22.04		
Square Feet	1362.07		
Slurry Cubic Feet	486		

Start Station (from Plans)	AC
Stop Station (from Plans)	AA

Labor

POSITION	Hrs/Day	QTY.	Total Hrs
Foreman	10/1	1	10
Pile Driver	10/1	2	20
oper	10/1	2	20
LABOR	10/1	1	10

Rented Equipment

TYPE	Hrs/Day	QTY.	Total Hrs
GEAL	10/1	1	10

PROJECT FOREMAN: [signature]

APPROVED BY: [signature]

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Slurry Systems, Inc. Daily Work Report No. 6

Job No. 026-05VBS-IN
Date 5-16-06
Page 1 of

SU M (TU) W TH F SA

Daily Notes

HAD SAFETY MEETING 10 MIN, REMOVE TOP RAIL ON FENCE & LAYED FENCE OUT TO FINISH TIE END ON WALL, REINSTALLED RAIL + FENCE MOVE RIG TO NORTH END, REROUTED HOSES GOT SET UP 3 HRS., STARTED DRIVING 1:00 pm, HAD HOSE BREAK, STOP TO FIX 15 MIN, HAVING PROBLEMS WITH FILTER ON UNIT, WILL REPLACE IN MORNING. ORDER FUEL FOR TOMORROW. TALK TO TERRY ABOUT HAVING BACK HOE ON SITE.

HIRED GREG HESLER OPER - OTHER

Vibrated Beam Production

ITEM	NEW	REDO	TOTAL
Linear Feet	87.2		
Average Depth	21.32		
Square Feet	1859.10		
Slurry Cubic Feet	891		

Start Station (from Plans)	
Stop Station (from Plans)	

Labor

POSITION	Hrs/Day	QTY.	Total Hrs
FOREMAN	10.5/1	1	10.5
PILE DRIVER	10.5/1	2	21
OPER	10.5/1	3	31.5
LABOR	10.5/1	1	10

Rented Equipment

TYPE	Hrs/Day	QTY.	Total Hrs
GEHL	10.5/1	1	10.5

PROJECT FOREMAN: [signature]

APPROVED BY: [signature]

Slurry Systems, Inc. Daily Work Report No. 7

Job No. 026-05VBS-IN
Date 5-17-06
Page 1 of

SU M TU W TH F SA

Daily Notes

STARTED with safety meeting 10min, STARTED mixing, got STARTED DRIVING, DRAWS UNTIL 10:25 AM, TERRY STOP US SLURRY WAS AT TOP of TRENCH (1½ hours DOWN), Remove TWO of The Dams To get slurry To RUN, USED Rig + Beam To Drag slurry Down The Trench, TALK TO TERRY ABOUT BACK HOE, He got Them OUT AS SOON AS he could, TALK TO FRED ABOUT who was Responible To Take care of Trench To Help maintain Trench, BACK HOE oper Building up side of TRENCH 1'-1½', Should help with Holding slurry IN Trench, HAD lightning IN afternoon STOP DRIVING until it PAST (20min)

Vibrated Beam Production

ITEM	NEW	REDO	TOTAL
Linear Feet	160.3		
Average Depth	19.134		
Square Feet	3067.18		
Slurry Cubic Feet	1053		

Start Station (from Plans)	
Stop Station (from Plans)	

Labor

POSITION	Hrs/Day	QTY.	Total Hrs
Foreman	10/1	1	10
Pile Drivers	10/1	2	20
oper.	10/1	3	30
LABOR	10/1	1	10

Rented Equipment

TYPE	Hrs/Day	QTY.	Total Hrs
GEHL	10/1	1	10

PROJECT FOREMAN: [signature]

APPROVED BY: Terry Clavez

Slurry Systems, Inc. Daily Work Report No. 8

Job No. 026-05VBS-IN
Date 6-18-06 SU M TU W (TH) F SA
Page 1 of

Daily Notes

STARTED 10 min safety meeting. STARTED mixing & began Driving, was good until we Hit South End of cap Then Platform gave way next to Trench, got Rig To safe spot, Lay out matts, got Rig Back INTO Place (1½ hrs). Storm came Threw Alot of lighting, stop until it PAST (20min) HAD problems moving matts over cap, HAD To TAKE Them To North End and come around. maintaing slurry IN Trench

Vibrated Beam Production

ITEM	NEW	REDO	TOTAL
Linear Feet	131.3		
Average Depth	17.74		
Square Feet	2329.26		
Slurry Cubic Feet	1053		

Start Station (from Plans)	
Stop Station (from Plans)	

Labor

POSITION	Hrs/Day	QTY.	Total Hrs
Foreman	10/1	1	10
Pile Driver	10/1	2	20
oper	10/1	3	30
LABOR	10/1	1	10

Rented Equipment

TYPE	Hrs/Day	QTY.	Total Hrs
CCHL	10/1	1	10

PROJECT FOREMAN: [signature]

APPROVED BY: [signature]

Slurry Systems, Inc. Daily Work Report No. 9

Job No. 026-05VBS-IN
Date 5-19-06 SU M TU W TH (F) SA
Page 1 of

Daily Notes

STARTED safety meeting (10min) Began mixing, STARTED Driving, Leaving Rig on matts until we Hit corner, Platform soft Because of Rain, Driving Is Fair, Have some small problems But work out. Received Fuel

Vibrated Beam Production

ITEM	NEW	REDO	TOTAL
Linear Feet	156		
Average Depth	22.92		
Square Feet	3575.52		
Slurry Cubic Feet	1296		

Start Station (from Plans)	
Stop Station (from Plans)	

Labor

POSITION	Hrs/Day	QTY.	Total Hrs
Foreman	10/1	1	10
pile Driver	10/1	2	20
oper	10/1	3	30
Labor	10/1	1	10

Rented Equipment

TYPE	Hrs/Day	QTY.	Total Hrs
GeHL	10/1	1	10

PROJECT FOREMAN: J Wallace

APPROVED BY: Tommy Clancy

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Slurry Systems, Inc. Daily Work Report No. 10

Job No. 026-05VBS-IN
Date 5-20-06 SU M TU W TH F (SA)
Page 1 of

Daily Notes

STARTED with safety meeting (10min) Begun mixing, STARTED DRIVING. Hit HARD SPOT AT 4+98, DRIVE TIMES ARE 2-15 mins. HAVING problems with Filters on unit Will Replace at end of DAY.

Vibrated Beam Production

ITEM	NEW	REDO	TOTAL
Linear Feet	88.6		
Average Depth	26.57		
Square Feet	2354.10		
Slurry Cubic Feet	891		

Start Station (from Plans)	
Stop Station (from Plans)	

Labor

POSITION	Hrs/Day	QTY.	Total Hrs
Foreman	10/1	1	10
Pile Drivers	10/1	2	20
oper	10/1	3	30
Labor	10/1	1	10

Rented Equipment

TYPE	Hrs/Day	QTY.	Total Hrs
Gen H2	10/1	1	10

PROJECT FOREMAN: [signature]

APPROVED BY: [signature]

Slurry Systems, Inc. Daily Work Report No. 11

Job No. 026-05VBS-IN
Date 5-22-06 SU (M) TU W TH F SA
Page ____ **of** ____

Daily Notes

Began with Safety meeting (10min) started mixing, began Driving, Drive Times are bad 10-26 mins, we are still maintaining slurry in trench, Received Fuel. Auger motor went out, called Kingsridge to pickup auger from yard & be on site 7:00am tomorrow morning. Ran late by 1/2 hour.

Vibrated Beam Production

ITEM	NEW	REDO	TOTAL
Linear Feet	74.3		
Average Depth	25.74		
Square Feet	1912.48		
Slurry Cubic Feet	810		

Start Station (from Plans)	
Stop Station (from Plans)	

Labor

POSITION	Hrs/Day	QTY.	Total Hrs
Foreman	10.5/1	1	10.5
Pile Drivers	10.5/1	2	21
Oper	10.5/1	3	31.5
Labor	10.5/1	1	10.5

Rented Equipment

TYPE	Hrs/Day	QTY.	Total Hrs
Gr HL	10.5/1	1	10.5

PROJECT FOREMAN: [signature]

APPROVED BY: [signature]

Slurry Systems, Inc. Daily Work Report No. 12

Job No. 026-05VBS-IN
Date 5-23-06 SU M (TU) W TH F SA
Page ____ of ____

Daily Notes

HAD safety meeting (10min) Recived Auger & Installed walk Rig off mats, STARTED Driving At south corner going north, Drove until 11:20 am Then move north To station AB, set up (40min) Began Driving after Lunch, EPA stop us Because she said There was slurry Leaking Threw Pipe I disagreed, Dam up Ditch started Driving (45min) Two Hoses Let Lose had To repair

Vibrated Beam Production

ITEM	NEW	REDO	TOTAL
Linear Feet	105.1		
Average Depth	21.86		
Square Feet	2297.48		
Slurry Cubic Feet	891		

Start Station (from Plans)	
Stop Station (from Plans)	

Labor

POSITION	Hrs/Day	QTY.	Total Hrs
Foreman	10/1	1	10
Pile Driver	10/1	2	20
Oper	10/1	3	30
Labor	10/1	1	10

Rented Equipment

TYPE	Hrs/Day	QTY.	Total Hrs
Gehl	10/1	1	10

PROJECT FOREMAN: [signature]

APPROVED BY: [signature]

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Slurry Systems, Inc. Daily Work Report No. 13

Job No. 026-05VBS-IN
Date 5-24-06
Page 1 of

SU M TU (W) TH F SA

Daily Notes

HAD safety meeting (10 min) Began mixing, STARTED Driving
Driving getting HARDER going south, walk Rig
on mats, going south To north IN HARD AREA

Vibrated Beam Production

ITEM	NEW	REDO	TOTAL
Linear Feet	136.4		
Average Depth	23.19		
Square Feet	3164.11		
Slurry Cubic Feet	1134		

Start Station (from Plans)	
Stop Station (from Plans)	

Labor

POSITION	Hrs/Day	QTY.	Total Hrs
Foreman	10/1	1	10
Pile Drivers	10/1	2	20
oper	10/1	3	30
LABOR	10/1	1	10

Rented Equipment

TYPE	Hrs/Day	QTY.	Total Hrs
GeHL	10/1	1	10

PROJECT FOREMAN: [signature]

APPROVED BY: [signature]

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Slurry Systems, Inc. Daily Work Report No. 14

Job No. 026-05VBS-IN
Date 5-25-06
Page ____ of ____

SU M TU W (TH) F SA

Daily Notes

STARTED with safety meeting (10min). began mixing + Driving
DRIVE TIME ARE FROM 17min TO 26min per BEAM, DROVE
UNTIL FINISH 10" over LAP TO MAKE TIE END, DROP BEAM
MOVE HOSE + Roll up, WALK Rig off MATS.

HAD TO get TRUCK CRANE with MAN, NO ATV WAS
AVAILABLE will Be HERE FRIDAY MORNING.

WALL is completed

Vibrated Beam Production

ITEM	NEW	REDO	TOTAL
Linear Feet	42		
Average Depth	23.88		
Square Feet	1002.96		
Slurry Cubic Feet	567		

Start Station (from Plans)	
Stop Station (from Plans)	

Labor

POSITION	Hrs/Day	QTY.	Total Hrs
Foreman	10/1	1	10
Pile Driver	10/1	2	20
Oper	10/1	3	30
Labor	10/1	1	10

Rented Equipment

TYPE	Hrs/Day	QTY.	Total Hrs
GEHL	10/1	1	10

PROJECT FOREMAN: [signature]

APPROVED BY: [signature]

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Slurry Systems, Inc. Daily Work Report No. 15

Job No. 026-05VBS-IN
Date _____
Page _____ of _____

SU M TU W TH (F) SA

Daily Notes

STARTED

Vibrated Beam Production

ITEM	NEW	REDO	TOTAL
Linear Feet			
Average Depth			
Square Feet			
Slurry Cubic Feet			

Start Station (from Plans)	
Stop Station (from Plans)	

Labor

POSITION	Hrs/Day	QTY.	Total Hrs
Foreman	10/1	1	10
Pile Driver	10/1	2	20
Oper	10/1/8/1	3	28
Labor	8/1	1	8

Rented Equipment

TYPE	Hrs/Day	QTY.	Total Hrs
GEHL	10/1	1	10

PROJECT FOREMAN: _____

APPROVED BY: _____

Slurry Systems, Inc. Daily Work Report No.____

Job No. 026-05VBS-IN
Date 5/30/06 SU M (TU) W TH F SA
Page ____ of ____

Daily Notes

Loaded 3 Truck clean up Around Dumpters on Deck Trailers

Vibrated Beam Production

ITEM	NEW	REDO	TOTAL
Linear Feet			
Average Depth			
Square Feet			
Slurry Cubic Feet			

Start Station (from Plans)	
Stop Station (from Plans)	

Labor

POSITION	Hrs/Day	QTY.	Total Hrs
Foreman	8/1	1	8
Pile Drivers	8/1	2	16
oper	8/1	1	8

Rented Equipment

TYPE	Hrs/Day	QTY.	Total Hrs
Grill	8/1	1	8

PROJECT FOREMAN: _____ **APPROVED BY:** _____

Slurry Systems, Inc. Daily Work Report No.____

Job No. 026-05VBS-IN
Date 5-31-06 SU M TU (W) TH F SA
Page _____ **of** _____

Daily Notes

Loaded one Truck, put sleeves in point waited 4 hrs for pipes to be placed, mix 8 batches to fill around pipes

Vibrated Beam Production

ITEM	NEW	REDO	TOTAL
Linear Feet			
Average Depth			
Square Feet			
Slurry Cubic Feet			

Start Station (from Plans)	
Stop Station (from Plans)	

Labor

POSITION	Hrs/Day	QTY.	Total Hrs
Foreman	9/1	1	9
Pile Drivers	9/1	2	18
oper	9/1	1	9

Rented Equipment

TYPE	Hrs/Day	QTY.	Total Hrs
BeHL	9/1	1	9

PROJECT FOREMAN: _____ **APPROVED BY:** _____

Slurry Systems, Inc. Daily Work Report No.____

Job No. 026-05VBS-IN
Date 6-1-06 SU M TU W (TH) F SA
Page ____ of ____

Daily Notes

TEAR DOWN BATCH PLANT, LOADED 3 TRUCK
PULL TRAILER OUT ON TO ROAD, PULL DUMPTERS OUT
TO PLATFORM, TOOK RIG APART + FINISH LOADING

CALL OFF FORK LIFT.
NOTE 4783184

Vibrated Beam Production

ITEM	NEW	REDO	TOTAL
Linear Feet			
Average Depth			
Square Feet			
Slurry Cubic Feet			

Start Station (from Plans)	
Stop Station (from Plans)	

Labor

POSITION	Hrs/Day	QTY.	Total Hrs
FOREMAN	8/1	1	8
Pile Drivers	8/1	2	16

Rented Equipment

TYPE	Hrs/Day	QTY.	Total Hrs

PROJECT FOREMAN: _____ APPROVED BY: _____

Slurry Systems, Inc. Daily Vibrated Beam Production

42.8
14.
61.8

Job No. 026-05VBS-IN
Date 5-15-06 SU (M) TU W TH F SA
Page 1 of
Prepared by [illegible]

Sta. 0+00

Beam #	Time	BEAM PENETRATION Down	Depth (ft)	Up	Start	End	Comments
1	12:54	1:06	23	3:09	40psi	55	
2	1:10	2:06	23	2:56	30psi	55	
3	1:30	1:11	23	2:43	38psi	50	clean out jet
4	1:37	2:26	23	2:49	44psi	55	
5	1:45	2:16	23	2:58	38psi	48	
6	2:10	2:23	21½	3:20	34psi	55	Turn 2.9 around
7	2:24	1:24	21½	2:55	32	40	
8	1:31	1:27	21½	2:40	36	42	
9	1:38	1:38	21½	2:24	44	55	
10	2:45	1:33	21½	2:28	36	45	
1	2:52	1:20	21½	2:37	44	50	jet clean out jet wood surface
2	3:01	1:53	21½	2:21	38	50	wood surface
3	3:07	1:53	21½	2:17	38	46	
4	3:23	1:48	21½	2:24	32	40	Fix sugar
5	3:29	1:44	21½	2:10	44	52	
6	3:34	1:38	21½	2:02	44	50	
7	3:40	1:34	21½	2:21	36	50	
8	4:02	1:40	21½	2:15	38	50	stop to plug pipe slurry leaking through
9	4:16	2:14	21½	1:59	42	48	
20	4:22	1:59	23	2:02	34	60	

0+31

Daily Totals				
Item	New	Redo	Total	Comments
Beam Total	22			61.8 Lin Ft.
Avg. Depth (Ft)	22.04			
Linear Footage	61.8			
Square Footage	1362.07			

Slurry Systems, Inc. Daily Vibrated Beam Production

Job No. 026-05VBS-IN
Date 5-15-06 SU (M) TU W TH F SA
Page 2 of
Prepared by [illegible]

		BEAM PENETRATION					
Beam #	Time	Down	Depth (ft)	Up	Start	End	Comments
21	4:32	1:48	23	2:48	30 psi	42 psi	
2	4:38	2:26	23	2:23	34	42	
3							
4							
5							
6							
7							
8							
9							
30							
1							
2							
3							
4							
5							
6							
7							
8							
9							
40							

Daily Totals				
Item	New	Redo	Total	Comments
Beam Total				
Avg. Depth (Ft)				
Linear Footage				
Square Footage				

Slurry Systems, Inc. Daily Vibrated Beam Production

Job No. 026-05VBS-IN
Date 3 16 06 S M (T) W TH F SA
Page 1 of
Prepared by [illegible]

		BEAM PENETRATION					
Beam #	Time	Down	Depth (ft)	Up	Start	End	Comments
1	9:04	2:32	23	2:25	30 psi	38 psi	move steel plate behind rig
2	9:46	2:59	23	2:05	34	42	
3	9:53	2:25	23	2:31	40	48	
4	10:00	1:26	23	1:55	32	42	wood surface
5	1:22	1:58	22½	3:56	38	46	move rig for hoses.
6	1:31	:51	22½	1:40	30	42	
7	1:36	1:12	22½	1:52	30	40	
8	1:42	1:10	22½	1:50	38	42	
9	1:53	1:29	22½	1:50	30	42	Hose broke in half
10	2:13	1:44	22½	2:14	28	36	
1	2:23	1:54	22½	2:55	35	40	
2	2:29	2:05	22½	2:57	35	40	wood surface
3	2:36	1:54	22½	2:51	40	45	
4	2:42	1:50	22½	2:59	30	40	
5	2:49	2:29	22½	2:40	30	45	
6	2:57	2:19	22½	2:50	30	40	
7	3:05	2:23	22½	2:59	35	45	
8	3:14	1:36	22½	2:45	30	40	
9	3:20	2:23	22½	2:31	35	40	
20	3:35	2:50	22½	2:33	30	45	

Start 1435 7 Beam sample

Daily Totals				
Item	New	Redo	Total	Comments
Beam Total	34			10 ft Lin ft
Avg. Depth (Ft)	21.32			77.2 Lin ft
Linear Footage	87.2			87.2 Lin ft
Square Footage	1859.40			

Slurry Systems, Inc. Daily Vibrated Beam Production

Job No. 026-05VBS-IN
Date 5-16-08 SU M (TU) W TH F SA
Page 2 of
Prepared by [illegible]

	BEAM PENETRATION						
Beam #	Time	Down	Depth (ft)	Up	Start	End	Comments
21	3:13	1:21	19½	2:54	45	50	cleaned jet
2	3:50	1:32	19½	2:27	40	45	
3	3:56	1:28	19½	2:11	35	45	
4	3:59	1:16	19½	2:27	40	45	
5	4:05	2:08	19½	2:24	45	50	
6	4:19	1:23	19½	2:13	30	40	lay back line down
7	4:26	1:24	19½	2:29	30	45	cleaned jet
8	4:31	1:16	19½	2:07	35	45	wood surface
9	4:36	1:14	19½	2:09	45	50	
30	4:40	1:16	19½	2:06	35	45	
1	4:45	1:29	19½	2:03	30	40	
2	4:50	1:41	19½	2:10	30	45	
3	4:55	1:39	19½	2:09	30	40	
4	[illegible]	1:31	19½	2:13	30	40	
5							
6							
7							
8							
9							
40							

Daily Totals				
Item	New	Redo	Total	Comments
Beam Total				
Avg. Depth (Ft)				
Linear Footage				
Square Footage				

Slurry Systems, Inc. Daily Vibrated Beam Production

Job No. 026-05VBS-IN
Date 5-17-06 SU M TU (W) TH F SA
Page 1 of
Prepared by [illegible]

		BEAM PENETRATION					
Beam #	Time	Down	Depth (ft)	Up	start	End	Comments
1	8:38	1:09	19 1/2	1:59	30 psi	40 psi	
2	8:45	1:25	19 1/2	2:45	30	60	
3	8:51	1:24	19 1/2	2:11	50	60	
4	8:56	1:10	19 1/2	2:02	35	45	
5	9:01	1:14	19 1/2	1:59	40	50	
6	9:12	1:24	19 1/2	2:09	40	50	
7	9:17	1:26	19 1/2	1:50	40	60	
8	9:21	1:02	19 1/2	1:58	45	60	
9	9:28	1:04	19 1/2	1:59	45	55	
10	9:33	1:28	19 1/2	1:53	45	55	roots surface
1	9:38	1:06	19 1/2	1:52	40	50	
2	11:04	1:01	19 1/2	2:07	40	50	Fix side of trench
3	11:09	1:11	19 1/2	1:58	35	45	
4	11:13	1:07	19 1/2	2:03	35	40	
5	11:18	1:37	19 1/2	2:05	35	45	
6	11:23	1:35	19 1/2	2:22	35	40	
7	11:28	1:11	19 1/2	1:53	40	45	
8	11:33	1:19	19 1/2	1:51	40	50	root surface
9	11:37	1:40	19 1/2	1:53	40	45	root surface
20	11:43	1:38	19 1/2	2:06	45	50	

Daily Totals				
Item	New	Redo	Total	Comments 160.3 Lin ft
Beam Total	403			
Avg. Depth (Ft)	19.134			
Linear Footage	160.3			
Square Footage	3067.18			

Slurry Systems, Inc. Daily Vibrated Beam Production

Job No. 026-05VBS-IN
Date 5-17-06 SU M TU (W) TH F SA
Page 2 of
Prepared by [illegible]

		BEAM PENETRATION					
Beam #	Time	Down	Depth (ft)	Up	start	End	Comments
21	11:49	1:34	19½	1:46	40 psi	45 psi	wood surface
2	11:53	1:30	19½	1:54	45	55	
3	12:46	1:18	19½	1:47	40	50	
4	12:51	1:03	19½	1:47	40	45	
5	12:55	1:08	19½	2:01	40	50	
6	12:59	1:00	19½	1:58	40	45	
7	1:05	:56	19½	2:25	35	45	
8	1:10	1:02	19½	2:03	40	45	
9	1:15	1:02	19½	2:16	40	45	
30	1:20	1:09	19½	2:12	45	55	
1	1:27	1:01	19½	2:11	30	45	
2	1:32	1:08	19½	2:19	30	40	
3	1:38	:58	19	2:18	35	45	
4	1:44	:46	19	2:16	30	40	
5	1:48	:43	19	2:19	30	45	
6	1:53	:38	19	1:55	35	40	wood surface
7	1:59	:49	19	2:20	30	40	
8	2:04	:42	19	1:52	30	45	
9	2:08	:46	19	1:57	30	35	
40	2:23	1:02	19	2:02	30	40	

sta. 8+76

Daily Totals				
Item	New	Redo	Total	Comments
Beam Total				
Avg. Depth (Ft)				
Linear Footage				
Square Footage				

Slurry Systems, Inc. Daily Vibrated Beam Production

Job No. 026-05VBS-IN
Date 5-17-06 SU M TU (W) TH F SA
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Prepared by [illegible]

		BEAM PENETRATION					
Beam #	Time	Down	Depth (ft)	Up	start	End	Comments
1	2:28	1:49	19	2:06	30 psi	45 psi	
2	2:35	2:45	19	1:54	30	40	soft surface
3	2:59	1:41	19	1:46	30	40	change fuel filter on pump
4	3:04	1:13	19	1:37	25	35	
5	3:08	1:16	19	1:57	25	30	
6	3:13	1:10	19	2:34	25	35	
7	3:18	1:28	19	1:47	30	35	
8	3:23	1:10	19	1:52	25	35	
9	3:27	1:09	18½	2:15	25	30	
50	3:32	1:05	18½	1:48	30	40	
1	3:38	:59	18½	2:05	30	35	
2	3:48	1:13	18½	1:46	25	35	lay track line down
3	3:52	1:05	18½	1:58	30	35	
4	3:56	:56	18½	1:52	30	40	
5	4:00	1:13	18½	1:52	25	35	
6	4:06	:55	18½	1:48	25	40	
7	4:10	:58	18½	1:55	30	40	
8	4:14	1:03	18½	1:52	30	35	
9	4:18	:57	18½	1:57	30	40	stop for lighting
60	4:42	1:14	18½	2:10	30	40	

9+33

Daily Totals				
Item	New	Redo	Total	Comments
Beam Total				
Avg. Depth (Ft)				
Linear Footage				
Square Footage				

Slurry Systems, Inc. Daily Vibrated Beam Production

Job No. 026-05VBS-IN
Date 5-17-06 SU M TU (W) TH F SA
Page 4 of
Prepared by [illegible]

		BEAM PENETRATION					
Beam #	Time	Down	Depth (ft)	Up	Start	End	Comments
61	4:47	1:43	18½	1:57	30 psi	45 psi	
2	4:50	1:52	18½	1:58	30	40	wood surface
3	4:54	1:53	18½	1:55	30	40	
4							
5							
6							
7							
8							
9							
70							
1							
2							
3							
4							
5							
6							
7							
8							
9							
80							

Daily Totals				
Item	New	Redo	Total	Comments
Beam Total				
Avg. Depth (Ft)				
Linear Footage				
Square Footage				

Slurry Systems, Inc. Daily Vibrated Beam Production

Job No. 026-05VBS-IN
Date 5-18-06 SU M TU W (TH) F SA
Page 1 of
Prepared by Robin W. Edmondson

		BEAM PENETRATION					
Beam #	Time	Down	Depth (ft)	Up	Start	End	Comments
1	8:08	1:54	18½	2:10	35 psi	40 psi	
2	8:12	1:06	18½	1:59	40	50	
3	8:18	1:01	18½	2:00	30	40	
4	8:23	1:03	18½	2:15	30	40	wood surface
5	8:28	1:51	18½	1:46	30	40	
6	8:32	1:11	18½	1:42	35	45	
7	8:38	1:50	18½	2:20	30	40	
8	8:44	1:50	18½	2:10	30	35	
9	~~8:48~~ 9:08	1:30	18½	1:53	40	45	fix side of trench
10	9:05	1:42	18½	1:49	35	40	
11	9:09	1:30	18½	2:01	35	45	
12	9:14	1:34	18½	2:03	35	40	
13	9:19	1:45	18½	2:13	40	50	
14	9:23	1:25	18½	2:22	40	45	
15	9:28	1:15	18½	2:09	35	40	
16	9:33	1:13	18½	2:16	35	45	
17	9:38	1:09	18½	2:19	35	40	
18	9:42	1:23	18½	2:17	35	45	
19	9:47	1:08	19	2:21	40	45	
20	9:51	1:12	19	2:19	35	45	

Fix 2,7

Daily Totals				
Item	New	Redo	Total	Comments 131.3 Linear ft
Beam Total	55			
Avg. Depth (Ft)	17.74			
Linear Footage	131.3			
Square Footage	2329.26			

Slurry Systems, Inc. Daily Vibrated Beam Production

Job No. 026-05VBS-IN
Date 5-18-06 SU M TU W (TH) F SA
Page 2 of
Prepared by [illegible]

		BEAM PENETRATION					
Beam #	Time	Down	Depth (ft)	Up	Start	End	Comments
21	9:56	1:14	19	1:51	30 psi	45 psi	
2	10:00	1:24	19	2:17	30	40	
3	10:05	1:16	19	2:12	35	45	wood surface
4	10:09	1:23	19	2:02	35	45	
5	10:13	1:23	19	2:27	30	40	
6	10:18	1:08	19	2:13	35	40	
7	10:22	1:09	19	2:09	40	45	
8	10:29	1:19	19	2:02	30	45	wood surface
9	10:31	1:15	19	2:13	30	40	
30	10:35	1:28	19	2:18	40	45	
1	10:40	1:34	19	2:29	35	40	wood surface
2	10:46	1:22	19	2:27	40	45	
3	10:51	1:22	19	2:24	40	45	
4	11:14	2:11	A	2:25	30	40	stop for lightning
5	11:20	2:07	19	2:03	30	45	
6	11:26	1:43	15½	1:35	30	40	
7	11:31	1:15	15½	1:57	30	35	
8	11:36	1:10	15½	1:28	35	40	
9	11:42	1:58	15½	1:29	40	45	
40	2:06	1:48	15½	1:20	35	40	Fix Crane pad

Daily Totals				
Item	New	Redo	Total	Comments
Beam Total				
Avg. Depth (Ft)				
Linear Footage				
Square Footage				

Sunny

Slurry Systems, Inc. Daily Vibrated Beam Production

Job No. 026-05VBS-IN
Date 5-18-06 SU M TU W (TH) F SA
Page 3 of
Prepared by [illegible]

		BEAM PENETRATION					
Beam #	Time	Down	Depth (ft)	Up	Start	End	Comments
41	2:11	1:45	15½	1:34	30 psi	40 psi	
2	2:17	1:47	15½	1:29	30	45	
3	2:22	1:47	15½	1:38	25	35	
4	2:26	1:55	15½	1:38	25	35	
5	2:30	1:55	15½	1:31	25	30	
6	2:34	1:57	15½	1:33	25	35	
7	2:38	1:11	15½	1:40	35	45	
8	2:44	1:55	15½	1:41	35	40	
9	2:48	1:23	15½	1:46	35	45	
50	2:55	1:23	15½	1:43	30	40	
1	3:01	1:48	17½	2:18	30	45	
2	3:47	1:41	17½	2:08	30	35	moved crane out wood surface
3	3:48	2:04	17½	2:03	25	35	
4	3:54	1:39	17½	2:04	25	35	
5	4:01	1:42	17½	2:31	30	40	
6							
7							
8							
9							
60							

LA. +76

Daily Totals				
Item	New	Redo	Total	Comments
Beam Total				
Avg. Depth (Ft)				
Linear Footage				
Square Footage				

Slurry Systems, Inc. Daily Vibrated Beam Production

Job No. 026-05VBS-IN
Date 5-19-06 SU M TU W TH (F) SA
Page 1 of
Prepared by [illegible]

		BEAM PENETRATION					
Beam #	Time	Down	Depth (ft)	Up	start	End	Comments
1	8:39	2:12	17 1/2	2:34	25 psi	40 psi	
2	8:46	1:44	17 1/2	2:09	25	35	
3	8:51	1:41	17 1/2	2:39	30	40	
4	8:57	1:39	17 1/2	2:21	30	40	
5	9:03	1:21	17 1/2	2:04	30	40	
6	9:08	1:18	17 1/2	2:03	30	45	wood surface
7	9:13	1:17	17 1/2	2:01	30	35	
8	9:17	1:14	17 1/2	2:02	30	35	
9	9:22	1:06	17 1/2	2:08	30	40	
10	9:27	1:55	17 1/2	2:13	35	40	
1	9:32	1:52	17 1/2	1:55	30	40	
2	9:37	1:04	17 1/2	1:58	30	35	
3	9:42	1:07	17 1/2	1:56	30	40	
4	9:46	1:23	19	2:09	30	40	wood surface
5	9:58	1:41	19	2:22	25	40	trailline + more crane mats
6	10:04	1:17	19	2:02	30	45	roots surface
7	10:09	1:22	19	2:02	30	40	
8	10:14	1:07	19	1:59	30	35	
9	10:19	1:05	19	2:02	30	45	
20	10:24	1:22	19	2:03	30	40	

A, +32

Daily Totals				
Item	New	Redo	Total	Comments 156 Lin ft.
Beam Total	64			
Avg. Depth (Ft)	22.92			
Linear Footage	156			
Square Footage	3575.52			

Slurry Systems, Inc. Daily Vibrated Beam Production

Job No. 026-05VBS-IN
Date 5-19-06 SU M TU W TH (F) SA
Page 2 of
Prepared by [illegible]

		BEAM PENETRATION					
Beam #	Time	Down	Depth (ft)	Up	Start	End	Comments
21	10:33	1:25	19	2:21	30 psi	40 psi	
2	10:39	1:12	19	2:03	30	35	
3	10:44	1:29	19	2:09	30	40	
4	10:50	:52	19	2:08	30	35	
5	10:56	1:14	19	2:07	30	40	move crane mats + Track line
6	11:18	:50	19	1:59	30	45	
7	11:22	1:12	24	2:28	30	40	
8	11:28	1:03	24	2:29	30	40	
9	11:33	:57	24	2:18	30	40	
30	11:38	1:03	24	2:46	30	35	move crane mats
1	11:48	1:14	24	2:52	30	40	
2	11:54	1:38	24	2:47	30	45	
3	12:53	1:20	24	2:48	35	40	
4	12:59	1:13	24	2:15	35	45	
5	1:04	1:17	24	2:10	30	35	
6	1:10	1:11	24	2:45	30	40	
7	1:16	1:21	24	2:35	30	45	
8	1:22	1:15	24	2:19	35	40	
9	1:27	2:17	24	2:31	30	35	
40	1:33	2:08	24	2:23	35	40	[illegible]

A. 299

Daily Totals				
Item	New	Redo	Total	Comments
Beam Total				
Avg. Depth (Ft)				
Linear Footage				
Square Footage				

Slurry Systems, Inc. Daily Vibrated Beam Production

Job No. 026-05VBS-IN
Date 5-19-06 SU M TU W TH (F) SA
Page 3 of
Prepared by Arthur W. Edwards

		BEAM PENETRATION					
Beam #	Time	Down	Depth (ft)	Up	start	End	Comments
41	1:40	1:30	24	2:25	30	40	
2	1:45	1:18	24	2:46	30	40	wood surface
3	1:51	1:37	24	2:27	30	40	
sta. 159 → 4	1:57	1:57	28	3:25	30	35	
5	2:06	2:06	28	3:09	30	40	roots surface
6	2:13	1:53	28	3:02	35	45	
7	2:19	2:11	28	2:56	35	40	
8	2:26	1:41	28	3:31	35	40	
9	2:33	1:46	28	2:50	35	40	roots surface
50	2:40	1:41	28	3:33	35	45	
1	2:46	1:42	28	2:51	35	40	
2	2:52	1:38	28	3:01	35	45	
3	2:58	1:47	28	3:03	35	40	
4	3:05	1:59	28	2:59	35	40	
5	3:11	2:21	28	3:14	30	40	
6	3:18	2:02	28	3:18	30	40	
7	3:25	1:51	28	3:03	30	45	
8	3:34	1:38	28	3:17	30	40	
sta. 124 → 9	3:39	1:47	27½	2:58	30	40	Track wood surface use more cement
60	3:56	1:59	27½	2:57	25	30	

Daily Totals				
Item	New	Redo	Total	Comments
Beam Total				
Avg. Depth (Ft)				
Linear Footage				
Square Footage				

Slurry Systems, Inc. Daily Vibrated Beam Production

Job No. 026-05VBS-IN
Date 5-19-06 SU M TU W TH (F) SA
Page 4 of
Prepared by Robin W. Edwards

		BEAM PENETRATION					
Beam #	Time	Down	Depth (ft)	Up	Start	End	Comments
61	4:02	2:12	27½	2:58	30 psi	40 psi	
2	4:09	2:16	27½	3:09	30	45	
3	4:16	2:16	27½	2:59	30	40	
4	4:23	2:02	27½	2:58	30	40	
5							
6							
7							
8							
9							
70							
71							
2							
3							
4							
5							
6							
7							
8							
9							
80							

Daily Totals				
Item	New	Redo	Total	Comments
Beam Total				
Avg. Depth (Ft)				
Linear Footage				
Square Footage				

Slurry Systems, Inc. Daily Vibrated Beam Production

Job No. 026-05VBS-IN
Date 5-20-06 SU M TU W TH F (SA)
Page 1 of
Prepared by [illegible]

		BEAM PENETRATION					
Beam #	Time	Down	Depth (ft)	Up	start	End	Comments
1	8:08	3:37	27½	3:00	30psi	70psi	Hard Driving @ 23'
2	8:15	4:05	27½	2:59	30	70	Hard Driving @ 23'
3	8:24	3:49	27½	3:08	30	65	Hard Driving @ 23' [illegible] surface
4	8:33	3:50	27½	2:42	35	75	Hard Driving @ 23'
5	8:41	2:46	27½	3:02	30	60	
6	8:53	1:37	27½	2:59	35	60	Fix Dike
7	9:02	1:55	27½	2:57	30	60	
8	9:09	2:10	27½	2:42	30	60	
9	9:15	2:09	27	2:48	30	45	Hard Driving @ 23'
10	9:20	2:42	27	2:33	30	45	
1	9:27	2:42	27	3:07	30	50	
2	9:34	2:14	27	2:49	30	45	
3	9:39	2:53	27	2:36	30	45	Track line put down
4	9:51	3:35	27	3:08	30	60	Hard Driving @ 23'
5	9:58	7:07	27	3:02	30	65	Hard Driving @ 23'
6	10:20	5:42	27	2:40	35	45	Hard Driving @ 23' Filled trench
7	10:30	6:15	27	2:59	20	40	Hard Driving @ 23'
8	10:41	9:27	27	4:01	20	40	Hard Driving @ 23'
9	10:56	11:08	27	4:00	25	40	Hard Driving @ 23'
20	11:12	12:17	27	3:45	30	40	Hard Driving @ 23'

STA. 4+88

Daily Totals				
Item	New	Redo	Total	Comments 88.6 LAFT
Beam Total	38			
Avg. Depth (Ft)	26.57			
Linear Footage	88.6			
Square Footage	2354.10			

Slurry Systems, Inc. Daily Vibrated Beam Production

Job No. 026-05VBS-IN
Date 5-20-06
Page 2 of
Prepared by [illegible]

SU M TU W TH F (SA)

		BEAM PENETRATION					
Beam #	Time	Down	Depth (ft)	Up	start	end	Comments
21	11:31	14:02	27	3:04	30 psi	40 psi	Hard Driving @ 23'
2	11:52	10:18	27	3:18	30	45	Hard Driving @ 23'
3	12:52	8:30	27	3:33	30	45	Hard Driving @ 23'
4	1:06	10:47	27	3:23	35	50	Hard Driving @ 23'
5	1:23	8:52	27	3:19	35	50	Hard Driving @ 23'
6	1:36	7:52	27	3:33	35	55	Hard Driving @ 23'
7	1:49	9:16	27	3:19	40	55	Hard Driving @ 23'
8	2:03	10:15	27	3:07	35	55	Hard Driving @ 23'
9	2:17	4:29	25	3:11	35	55	Hard Driving @ 23'
30	2:26	4:54	25	3:05	30	70	Hard Driving @ 23'
1	2:36	4:08	25	3:45	40	60	Hard Driving @ 23'
2	2:49	3:23	25	3:03	40	55	Hard Driving @ 23' Traffic line
3	2:56	3:59	25	3:06	40	70	Hard Driving @ 23'
4	3:04	3:20	25	3:13	40	75	Hard Driving @ 23'
5	3:16	2:59	25	3:28	35	65	Hard Driving @ 23'
6	3:23	2:51	25	2:59	35	70	Hard Driving @ 23'
7	3:30	3:55	25	3:08	35	65	Hard Driving @ 23'
8	3:34	3:59	25	3:09	40	60	Hard Driving @ 23'
9							
40							

Daily Totals				
Item	New	Redo	Total	Comments
Beam Total				
Avg. Depth (Ft)				
Linear Footage				
Square Footage				

Slurry Systems, Inc. Daily Vibrated Beam Production

Job No. 026-05VBS-IN
Date 5-22-06 SU (M) TU W TH F SA
Page 1 of
Prepared by [illegible]

		BEAM PENETRATION					
Beam #	Time	Down	Depth (ft)	Up	Start	End	Comments
1	7:51	3:55	25	2:59	40 psi	60 psi	Hard Driving @ 20'
2	8:12	3:45	25	2:56	40	55	Hard Driving @ 20' Safety meeting
3	8:36	4:06	25	2:43	40	55	Hard Driving @ 15' fuel
4	8:44	3:48	25	3:04	35	60	Hard Driving @ 15'
5	8:52	3:47	25	2:50	35	60	Hard Driving @ 15'
6	9:02	3:39	25 1/2	3:01	35	45	Hard Driving @ 15'
7	9:10	4:04	25 1/2	3:09	35	50	Hard Driving @ 15'
8	9:19	3:45	25 1/2	3:24	30	55	Hard Driving @ 15'
9	9:27	3:35	25 1/2	3:10	30	55	Hard Driving @ 15'
10	10:11	4:00	25 1/2	2:48	25	45	Hard Driving @ 15' move crane mat + Trackline
11	10:19	3:53	25 1/2	3:02	25	45	Hard Driving @ 15'
12	10:27	2:59	25 1/2	2:48	35	50	Hard Driving @ 15'
13	10:34	3:44	25 1/2	2:34	30	50	Hard Driving @ 15'
14	10:41	4:38	25 1/2	2:36	30	55	Hard Driving @ 15'
15	10:49	5:00	25 1/2	2:49	30	50	Hard Driving @ 15'
16	10:58	7:50	25 1/2	2:35	30	65	Hard Driving @ 15'
17	11:10	9:02	25 1/2	2:38	30	60	Hard Driving @ 15'
18	11:30	8:44	25 1/2	2:47	30	65	Hard Driving @ 15' Trackline
19	11:43	10:16	25 1/2	2:50	25	75	Hard Driving @ 15'
20	12:50	15:56	25 1/2	3:33	30	70	Hard Driving @ 15'

Daily Totals				
Item	New	Redo	Total	Comments 74.3 Lin. ft
Beam Total	31			
Avg. Depth (Ft)	25.74			
Linear Footage	74.3			
Square Footage	1912.45			

Slurry Systems, Inc. Daily Vibrated Beam Production

Job No. 026-05VBS-IN
Date 5-22-06 SU (M) TU W TH F SA
Page 2 of
Prepared by Robin W. Edwards

		BEAM PENETRATION					
Beam #	Time	Down	Depth (ft)	Up	Start	End	Comments
21	1:12	17:26	25½	2:40	30 psi	60 psi	Hand Driving @15'
2	1:34	14:19	25½	2:53	30	50	Hand Driving @15'
3	1:53	13:29	25	2:48	30	50	Hand Driving @15'
4	2:10	8:24	25	3:30	30	55	Hand Driving @15' wood surface
5	2:25	10:15	25	2:35	30	75	Hand Driving @15'
6	2:40	11:05	25	2:55	30	65	Hand Driving @15'
7	2:57	11:14	25	2:42	30	65	Hand Driving @15'
8	3:12	13:52	25	2:21	35	75	Hand Driving @15'
9	3:41	17:54	25	3:03	30	65	Hand Driving @15' Truck lime Locked at Batch Plant wood surface
30	4:20	26:47	25	3:01	30	75	Hand Driving @15'
1	4:51	22:17	25	2:47	30	75	Hand Driving @15'
2							
3							
4							
5							
6							
7							
8							
9							
40							

SLA. 3467

Daily Totals				
Item	New	Redo	Total	Comments
Beam Total				
Avg. Depth (Ft)				
Linear Footage				
Square Footage				

Slurry Systems, Inc. Daily Vibrated Beam Production

Job No. 026-05VBS-IN
Date 5-23-06 SU M (TU) W TH F SA
Page 1 of
Prepared by Robin [illegible]

		BEAM PENETRATION					
Beam #	Time	Down	Depth (ft)	Up	Start	End	Comments
1	[illegible]	12:26	23	3:28	25 psi	80 psi	Hard Driving @15'
2	9:15	10:44	23	2:21	40	90	Hard Driving @15'
3	9:31	9:11	23	2:47	35	90	Hard Driving @15'
4	9:46	14:17	23	2:35	25	65	Hard Driving @15'
5	10:04	13:54	23	2:31	25	70	Hard Driving @15'
6	10:20	5:15	23	2:45	30	85	Hard Driving @15'
7	10:29	7:36	22½	2:21	30	90	Hard Driving @20'
8	10:41	7:55	22½	2:34	35	95	Hard Driving @15'
9	10:54	9:54	22½	2:40	35	65	Hard Driving @15'
10	11:07	6:14	22½	2:16	30	80	Hard Driving @15' moved rig
1	11:42	1:40	21½	1:56	30	40	
2	12:58	2:20	21½	2:10	40	50	
3	1:06	1:35	20	2:16	35	45	
4	1:14	1:40	20	2:12	30	40	
5	1:26	1:35	21	2:01	30	40	
6	1:34	1:14	21	2:[illegible]	40	45	
7	1:39	1:09	21	2:02	35	45	clean jet
8	1:45	1:16	21	2:24	30	40	clean jet
9	1:51	1:06	21	1:49	30	40	clean jet
10	1:56	1:15	21	1:57	35	40	clean jet

Daily Totals				
Item	New	Redo	Total	Comments
Beam Total	42			76.76 [illegible]
Avg. Depth (ft)	21.86			26.6 [illegible]
Linear Footage	105.1			105.1 [illegible]
Square Footage	2297.48			

Slurry Systems, Inc. Daily Vibrated Beam Production

Job No. 026-05VBS-IN
Date 5-23-06 SU M (TU) W TH F SA
Page 2 of
Prepared by Robin W. Edwards

		BEAM PENETRATION					
Beam #	Time	Down	Depth (ft)	Up	start	End	Comments
21	2:03	1:31	21	1:47	35 psi	40 psi	
2	2:08	1:12	21	1:51	30	45	
3	2:13	1:12	21	2:10	30	40	plugs jet
4	2:18	1:09	21	1:53	30	40	
5	2:23	:50	21	1:45	30	40	fix Dike
6	2:57	1:18	21	1:55	30	45	
7	3:05	1:26	21	2:15	30	40	
8	3:13	1:04	21½	1:58	25	60	
9	3:17	1:19	21½	2:13	45	50	
30	3:22	1:25	21½	2:11	50	65	
1	3:34	1:40	21½	2:00	45	50	Trackline
2	3:40	1:16	21½	2:08	45	50	clean jet
3	3:49	1:12	21½	1:55	60	65	
4	3:52	:50	21½	2:15	60	65	
5	4:00	:54	21½	2:07	60	65	
6	4:04	1:11	21½	1:58	65	70	
7	4:09	1:11	21½	2:20	65	75	
8	4:15	1:12	23½	2:18	65	70	
9	4:18	1:34	23½	2:39	60	70	
40	4:24	1:18	23½	2:08	60	65	

Sta. 1+09

A. 1+33 simple

Daily Totals				
Item	New	Redo	Total	Comments
Beam Total				
Avg. Depth (Ft)				
Linear Footage				
Square Footage				

Slurry Systems, Inc. Daily Vibrated Beam Production

Job No. 026-05VBS-IN
Date 5-23-06 SU M (TU) W TH F SA
Page 3 of
Prepared by [illegible]

		BEAM PENETRATION					
Beam #	Time	Down	Depth (ft)	Up	Start	End	Comments
1	4:28	1:22	23½	2:07	60 psi	70 psi	
2	4:33	1:30	23½	1:55	60	75	
3							
4							
5							
6							
7							
8							
9							
10							
1							
2							
3							
4							
5							
6							
7							
8							
9							
20							

Daily Totals				
Item	New	Redo	Total	Comments
Beam Total				
Avg. Depth (Ft)				
Linear Footage				
Square Footage				

Slurry Systems, Inc. Daily Vibrated Beam Production

Job No. 026-05VBS-IN
Date 5-24-06 SU M TU (W) TH F SA
Page 1 of
Prepared by [illegible]

		BEAM PENETRATION					
Beam #	Time	Down	Depth (ft)	Up	start	End	Comments
1	8:11	1.40	23½	2:23	40 psi	45 psi	
2	8:17	1:42	23½	2:36	30	40	
3	8:23	1:44	23½	2:40	35	40	
4	8:30	1:23	23½	2:26	30	40	clean jet
5	8:37	1:28	23½	2:44	30	40	clean jet
6	8:44	1:19	23½	2:30	30	40	
7	8:49	1:07	23½	2:35	30	40	
8	8:56	1.02	23½	2:15	35	40	
9	9:01	1:15	23½	1.58	30	40	
10	9:05	1:33	23½	2:21	30	40	clean jet
1	9:12	1:17	23½	2:05	35	40	
2	9:16	1:29	23½	2:03	35	40	
3	9:21	1:09	23½	2:01	35	40	
4	9:26	:49	23½	2:15	35	45	
5	9:31	:58	23½	2:06	35	45	
6	9:35	:51	23½	2:08	35	40	
7	9:38	:56	23	1:59	35	45	
8	9:43	:53	23	1:58	35	55	
9	10:16	3:08	23	4:50	35	60	turned rig around
20	10:26	1:14	23	2:18	25	60	

A. 3.7

Std. +85

.11 Beam

Daily Totals				
Item	New	Redo	Total	Comments
Beam Total	58			
Avg. Depth (Ft)	23.19			
Linear Footage	136.4			
Square Footage	3164.11			

Slurry Systems, Inc. Daily Vibrated Beam Production

Job No. 026-05VBS-IN
Date 5-24-06 SU M TU W TH F SA
Page 2 of
Prepared by [signature]

		BEAM PENETRATION					
Beam #	Time	Down	Depth (ft)	Up	start	End	Comments
21	10:31	1:52	23	2:40	35 psi	60 psi	
2	10:39	1:53	23	2:35	30	60	clean jet
3	10:45	1:49	23½	2:15	30	60	
4	10:50	1:02	23½	2:25	30	55	
5	10:55	:55	23½	2:23	30	55	wood surface
6	11:00	1:07	23½	2:19	30	60	
7	11:05	:52	23½	2:03	40	60	
8	11:09	1:15	23½	2:13	40	55	
9	11:14	1:05	23½	2:14	40	50	wood surface
30	11:19	:58	23½	2:11	30	50	
1	11:23	:51	23½	2:04	30	50	
2	11:28	:54	23½	2:12	30	45	
3	11:33	:35	23½	2:01	35	45	Moved rig Back to sta. 5.
4	12:43	4:02	22½	2:11	35	90	Hard Driving @ 15'
5	12:51	3:50	22½	2:13	30	90	Hard Driving @ 15'
6	1:06	2:54	22½	2:37	50	75	Hard Driving @ 15'
7	1:13	2:37	22½	2:22	35	65	Hard Driving @ 15'
8	1:19	2:37	23	2:26	40	85	Hard Driving @ 20'
9	1:27	2:28	23	2:40	35	80	Hard Driving @ 20'
40	1:34	1:32	23	2:15	35	65	

Sta. 2+14

Sta. +65

Daily Totals				
Item	New	Redo	Total	Comments
Beam Total	58			
Avg. Depth (Ft)				
Linear Footage				
Square Footage				

Slurry Systems, Inc. Daily Vibrated Beam Production

Job No. 026-05VBS-IN
Date 5-24-06 SU M TU (W) TH F SA
Page 3 of
Prepared by [illegible]

		BEAM PENETRATION					
Beam #	Time	Down	Depth (ft)	Up	start	End	Comments
41	1:39	1:32	23	2:35	35 psi	75 psi	
2	1:55	1:16	23	2:21	40	60	Turn Rig around
3	2:02	1:01	23	2:02	40	85	
4	2:06	1:29	23	2:48	40	80	Clean out
5	2:15	1:34	23	2:32	40	95	
6	2:20	2:00	23	2:35	45	90	
7	2:26	2:23	23	1:59	45	95	Hard Driving @ 20'
8	2:33	2:21	23	1:58	45	95	Hard Driving @ 20'
STA. 143 9	2:39	3:34	23	1:57	40	95	Hard Driving @ 20'
50	2:46	6:09	23	2:12	30	80	Hard Driving @ 20'
1	2:57	3:50	23	2:32	45	80	Hard Driving @ 20'
2	3:05	2:20	23	2:29	35	85	Hard Driving @ 20'
3	3:11	1:28	23	1:58	40	55	
4	3:16	1:11	23	2:30	40	60	
5	3:24	:38	23	1:58	40	95	move crane + cement
6	4:42	9:00	23	2:27	40	80	Hard Driving @ 15'
7	4:55	5:58	23	2:22	35	80	Hard Driving @ 15'
8	5:05	7:34	23	2:30	40	85	Hard Driving @ 15'
9							
60							

Daily Totals				
Item	New	Redo	Total	Comments
Beam Total				59 Pt
Avg. Depth (Ft)				48 Lin Ft
Linear Footage				79.7
Square Footage				[redacted]

136.4 Lin ft

18

Slurry Systems, Inc. Daily Vibrated Beam Production

Job No. 026-05VBS-IN
Date 5-25-06 SU M TU W TH F
Page 1 of ____
Prepared by Robin W. Edmonds Jr.

		BEAM PENETRATION					
Beam #	Time	Down	Depth (ft)	Up	Start	End	Comments
1	7:51	12:35	23	2:45	40 psi	85 psi	Hand Driving @ 15'
2	8:08	14:14	23½	2:34	35	90	Hand Driving @ 15' Fix Dike
3	9:04	9:53	23½	2:48	35	80	Hand Driving @ 15' cleaned jet
4	9:18	5:17	23½	2:42	35	80	Hand Driving @ 15'
5	9:28	8:14	23½	2:46	40	80	Hand Driving @ 15'
6	9:41	15:57	23½	3:01	40	80	Hand Driving @ 15' root surface
7	10:06	16:25	23½	2:34	35	90	Hand Driving @ 15' cleaned jet
8	10:27	12:27	23½	2:48	40	85	Hand Driving @ 15'
9	10:55	15:49	23½	2:15	40	60	Hand Driving @ 15' cleaned jet
10	11:16	10:06	23½	2:30	35	80	Hand Driving @ 15' cleaned jet
1	11:30	19:22	24½	2:25	35	80	Hand Driving @ 15'
2	12:47	13:16	24½	2:59	35	85	Hand Driving @ 15'
3	1:08	17:32	24½	2:48	35	80	Hand Driving @ 15' cleaned jet
4	1:59	18:42	24½	2:51	30	80	Hand Driving @ 15'
5	2:22	15:39	24½	2:55	30	85	Hand Driving @ 15' root surface
6	2:43	13:53	24½	2:54	35	80	Hand Driving @ 15'
7	3:01	17:11	24½	2:22	40	85	Hand Driving @ 15'
8	3:24	7:00	24½	2:36	40	80	Hand Driving @ 15'
9							
20							

Sta 3+05

Sta 3+25

Sta 4+43

1 ft tie in

Daily Totals				
Item	New	Redo	Total	Comments
Beam Total	18			42 Lin ft
Avg. Depth (Ft)	23.88			
Linear Footage	42			
Square Footage	1002.96			

Slurry Systems, Inc. Daily Batchplant Production

Job No. 018-04VBS-IL
Date 5/15/06 SU M TU W TH F SA
Page _____ of _____
Prepared by:

		SLURRY MIX			MIXING TIME	
Batch No.	Time of day	Water (cu. ft.)	Clay (Lbs/Bags)	Cement (Lbs/Bags)	Clay (min)	Cement (min)
1	1045	580	6	7	3½	3½
2	1137	580	6	7	3½	3½
3	1201	580	6	7	3½	3½
4	227	580	6	7	3½	3½
5	3:02	580	6	7	3	3
6	358	580	6	7	3	3
7						
8						
9						
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						
0						

Quality Control	
Batch No.	2
MF (sec)	45
Sp. Wt.	69
pH	
Batch No.	5
MF (sec)	39
Sp. Wt.	78
pH	
Batch No.	
MF (sec)	
Sp. Wt.	
pH	
Batch No.	
MF (sec)	
Sp. Wt.	
pH	

DAILY TOTALS	
Batch Total	6
Cubic Feet/Batch	81
Total Cubic Feet	486

Comments

Slurry Systems, Inc. Daily Batchplant Production

Job No. 026-05VBS-IN
Date 5/16/06 SU M TU W TH F SA
Page ____ of ____
Prepared by: Phil Mullins

		SLURRY MIX			MIXING TIME	
Batch No.	Time of day	Water (cu. ft.)	Clay (Lbs/Bags)	Cement (Lbs/Bags)	Clay (min)	Cement (min)
1	8:05	580	6	7	3	3
2	8:38	580	6	7	3	3
3	1:00p	580	6	7	3	3
4	1:37	580	6	7	3	3
5	1:45	580	6	7	3	3
6	2:09	580	6	7	3	3
7	2:40	580	6	7	3	3
8	301	580	6	7	3	3
9	333	580	6	7	3	3
0	350	580	6	7	3	3
1	420	580	6	7	3	3
2						
3						
4						
5						
6						
7						
8						
9						
0						

Quality Control	
Batch No.	3
MF (sec)	44
Sp. Wt.	69
pH	
Batch No.	8
MF (sec)	42
Sp. Wt.	69
pH	
Batch No.	
MF (sec)	
Sp. Wt.	
pH	
Batch No.	
MF (sec)	
Sp. Wt.	
pH	

DAILY TOTALS	
Batch Total	11
Cubic Feet/Batch	81
Total Cubic Feet	891

Comments

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Slurry Systems, Inc. Daily Batchplant Production

Job No. 026-05VBS-IN
Date 5/17/06 SU M TU (W) TH F SA
Page ____ of ____
Prepared by: Phil Mullins

Batch No.	Time of day	SLURRY MIX Water (cu. ft.)	Clay (Lbs/Bags)	Cement (Lbs/Bags)	MIXING TIME Clay (min)	Cement (min)
1	745	580	6	7	3	3
2	8:00	580	6	7	3	3
3	846	580	6	7	3	3
4	900	580	6	7	3	3
5	9:30	580	6	7	3	3
6	11:17	580	6	7	3	3
7	11:44	580	6	7	3	3
8	1255	580	6	7	3	3
9	115	580	6	7	3	3
0	135	580	6	7	3	3
1	220	580	6	7	3	3
2	305	580	6	7	3	3
3	355	580	6	7	3	3
4						
5						
6						
7						
8						
9						
0						

Quality Control	
Batch No.	8
MF (sec)	47
Sp. Wt.	70
pH	7.8
Batch No.	10
MF (sec)	46
Sp. Wt.	70
pH	
Batch No.	11
MF (sec)	45
Sp. Wt.	70
pH	
Batch No.	
MF (sec)	
Sp. Wt.	
pH	

DAILY TOTALS	
Batch Total	13
Cubic Feet/Batch	81
Total Cubic Feet	1053

Comments

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Slurry Systems, Inc. Daily Batchplant Production

Job No. 026-05VBS-IN
Date 5/18/06 SU M TU W (TH) F SA
Page _____ of _____
Prepared by: Phil Mills

		SLURRY MIX			MIXING TIME	
Batch No.	Time of day	Water (cu. ft.)	Clay (Lbs/Bags)	Cement (Lbs/Bags)	Clay (min)	Cement (min)
1	735	580	6	7	3	3
2	754	580	6	7	3	3
3	810	580	6	7	3	3
4	845	580	6	7	3	3
5	920	580	6	7	3	3
6	940	580	6	7	3	3
7	1005	580	6	7	3	3
8	1030	580	6	7	3	3
9	1045	580	6	7	3	3
0	1140	580	6	7	3	3
1	200	580	6	7	3	3
2	217	580	6	7	3	3
3	250	580	6	7	3	3
4						
5						
6						
7						
8						
9						
0						

Quality Control	
Batch No.	3
MF (sec)	49
Sp. Wt.	70
pH	
Batch No.	8
MF (sec)	48
Sp. Wt.	69
pH	
Batch No.	
MF (sec)	
Sp. Wt.	
pH	
Batch No.	
MF (sec)	
Sp. Wt.	
pH	

DAILY TOTALS	
Batch Total	13
Cubic Feet/Batch	81
Total Cubic Feet	1053

Comments

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Slurry Systems, Inc. Daily Batchplant Production

Job No. 026-05VBS-IN
Date 05/19/06 SU M TU W TH (F) SA
Page ____ of ____
Prepared by: Phil Mellus

Batch No.	Time of day	SLURRY MIX Water (cu. ft.)	Clay (Lbs/Bags)	Cement (Lbs/Bags)	MIXING TIME Clay (min)	Cement (min)
1	720	580	6	7	3	3
2	740	580	6	7	3	3
3	840	580	6	7	3	3
4	915	580	6	7	3	3
5	945	580	6	7	3	3
6	1021	580	6	7	3	3
7	1047	580	6	7	3	3
8	1130	580	6	7	3	3
9	1235	580	6	7	3	3
0	105	580	6	7	3	3
1	125	580	6	7	3	3
2	150	580	6	7	3	3
3	215	580	6	7	3	3
4	235	580	6	7	3	3
5	255	580	6	7	3	3
6	320	580	6	7	3	3
7						
8						
9						
0						

Quality Control	
Batch No.	4
MF (sec)	49
Sp. Wt.	70
pH	
Batch No.	9
MF (sec)	45
Sp. Wt.	69
pH	
Batch No.	
MF (sec)	
Sp. Wt.	
pH	
Batch No.	
MF (sec)	
Sp. Wt.	
pH	

DAILY TOTALS	
Batch Total	16
Cubic Feet/Batch	81
Total Cubic Feet	1296

Comments

Slurry Systems, Inc. Daily Batchplant Production

Job No. 026-05VBS-IN
Date 5/20/06 SU M TU W TH F SA
Page ____ of ____
Prepared by: [illegible]

		SLURRY MIX			MIXING TIME	
Batch No.	Time of day	Water (cu. ft.)	Clay (Lbs/Bags)	Cement (Lbs/Bags)	Clay (min)	Cement (min)
1	120	580	6	7	3	3
2	745	580	6	7	3	3
3	805	580	6	7	3	3
4	845	580	6	7	3	3
5	915	580	6	7	3	3
6	940	580	6	7	3	3
7	1015	580	6	7	3	3
8	1100	580	6	7	3	3
9	1145	580	6	7	3	3
0	125	580	6	7	3	3
1	205	580	6	7	3	3
2						
3						
4						
5						
6						
7						
8						
9						
0						

Quality Control	
Batch No.	4
MF (sec)	47
Sp. Wt.	69
pH	
Batch No.	10
MF (sec)	49
Sp. Wt.	69
pH	7.8
Batch No.	
MF (sec)	
Sp. Wt.	
pH	
Batch No.	
MF (sec)	
Sp. Wt.	
pH	

DAILY TOTALS	
Batch Total	11
Cubic Feet/Batch	81
Total Cubic Feet	891

Comments

Slurry Systems, Inc. Daily Batchplant Production

Job No. 026-05VBS-IN
Date 5/22/06 SU (M) TU W TH F SA
Page ____ of ____
Prepared by: [illegible]

		SLURRY MIX			MIXING TIME	
Batch No.	Time of day	Water (cu. ft.)	Clay (Lbs/Bags)	Cement (Lbs/Bags)	Clay (min)	Cement (min)
1	720	580	6	7	3	3
2	730	580	6	7	3	3
~~3~~						
4	931	580	6	7	3	3
5	1000	580	6	7	3	3
6	1014	580	6	7	3	3
7	1141	580	6	7	3	3
8	115	580	6	7	3	3
9	205	580	6	7	3	3
0	245	580	6	7	3	3
1	330	580	6	7	3	3
2						
3						
4						
5						
6						
7						
8						
9						
0						

Quality Control	
Batch No.	6
MF (sec)	49
Sp. Wt.	69
pH	
Batch No.	8
MF (sec)	49
Sp. Wt.	69
pH	7.8
Batch No.	
MF (sec)	
Sp. Wt.	
pH	
Batch No.	
MF (sec)	
Sp. Wt.	
pH	

DAILY TOTALS	
Batch Total	80
Cubic Feet/Batch	81
Total Cubic Feet	810

Comments

Slurry Systems, Inc. Daily Batchplant Production

Job No. 026-05VBS-IN
Date 5/23/06 SU M TU W TH F SA
Page _____ of _____
Prepared by: Phil Mullins

		SLURRY MIX			MIXING TIME	
Batch No.	Time of day	Water (cu. ft.)	Clay (Lbs/Bags)	Cement (Lbs/Bags)	Clay (min)	Cement (min)
1	830	580	6	7	3	3
2	845	580	6	7	3	3
3	910	580	6	7	3	3
4	925	580	6	7	3	3
5	945	580	6	7	3	3
6	1035	580	6	7	3	3
7	130	580	6	7	3	3
8	250	580	6	7	3	3
9	330	580	6	7	~~3~~ 2½	~~3~~ 2½
0	350	580	6	7	2½	2½
1	405	580	6	7	2½	2½
2						
3						
4						
5						
6						
7						
8						
9						
0						

Quality Control	
Batch No.	3
MF (sec)	49
Sp. Wt.	69
pH	
Batch No.	9
MF (sec)	47
Sp. Wt.	69
pH	
Batch No.	
MF (sec)	
Sp. Wt.	
pH	
Batch No.	
MF (sec)	
Sp. Wt.	
pH	

DAILY TOTALS	
Batch Total	11
Cubic Feet/Batch	81
Total Cubic Feet	891

Comments

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Slurry Systems, Inc. Daily Batchplant Production

Job No. 026-05VBS-IN
Date 5/24/06 SU M TU (W) TH F SA
Page ____ of ____
Prepared by: PW Mullins

Batch No.	Time of day	SLURRY MIX Water (cu. ft.)	Clay (Lbs/Bags)	Cement (Lbs/Bags)	MIXING TIME Clay (min)	Cement (min)
1	725	580	6	7	3	3
2	735	580	6	7	3	3
3	825	580	6	7	3	3
4	998	580	6	7	3	3
5	1048	580	6	7	3	3
6	1115	580	6	7	3	3
7	1135	580	6	7	3	3
8	1255	580	6	7	3	3
9	110	580	6	7	3	3
0	130	580	6	7	3	3
1	210	580	6	7	245	245
2	230	580	6	7	245	245
3	305	580	6	7	245	245
4	3:30	580	6	7	245	245
5			84	98		
6						
7						
8						
9						
0						

Quality Control	
Batch No.	2
MF (sec)	49
Sp. Wt.	69
pH	
Batch No.	11
MF (sec)	44
Sp. Wt.	69
pH	
Batch No.	
MF (sec)	
Sp. Wt.	
pH	
Batch No.	
MF (sec)	
Sp. Wt.	
pH	

DAILY TOTALS	
Batch Total	14
Cubic Feet/Batch	81
Total Cubic Feet	1134

Comments

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Slurry Systems, Inc. Daily Batchplant Production

Job No. 026-05VBS-IN
Date 5/25/06 SU M TU W (TH) F SA
Page 1 of 1
Prepared by: [illegible]

Batch No.	Time of day	SLURRY MIX Water (cu. ft.)	Clay (Lbs/Bags)	Cement (Lbs/Bags)	MIXING TIME Clay (min)	Cement (min)
1	720	580	6	7	3	3
2	730	580	6	7	3	3
3	915	580	6	7	3	3
4	1030	580	6	7	~~245~~	~~245~~
5	1140	580	6	7	245	245
6	120	580	6	7	230	230
7	300	580	6	7	230	230
8						
9						
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						
0						

Quality Control	
Batch No.	3
MF (sec)	44
Sp. Wt.	69
pH	
Batch No.	5
MF (sec)	47
Sp. Wt.	69
pH	
Batch No.	
MF (sec)	
Sp. Wt.	
pH	
Batch No.	
MF (sec)	
Sp. Wt.	
pH	

DAILY TOTALS	
Batch Total	7
Cubic Feet/Batch	81
Total Cubic Feet	567

Comments

Slurry Systems, Inc. Daily Batchplant Production

Job No. 026-05VBS-IN
Date 6-3-06 SU M TU W TH F SA
Page 1 of _____
Prepared by:

		SLURRY MIX			MIXING TIME	
Batch No.	Time of day	Water (cu. ft.)	Clay (Lbs/Bags)	Cement (Lbs/Bags)	Clay (min)	Cement (min)
1		580	6	7	3	3
2		580	6	7	3	3
3		580	6	7	3	3
4		580	6	7	3	3
5		580	6	7	3	3
6		580	6	7	3	3
7		580	6	7	3	3
8		580	6	7	3	3
9						
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						
0						

Quality Control
Batch No.
MF (sec)
Sp. Wt.
pH
Batch No.
MF (sec)
Sp. Wt.
pH
Batch No.
MF (sec)
Sp. Wt.
pH
Batch No.
MF (sec)
Sp. Wt.
pH

DAILY TOTALS	
Batch Total	8
Cubic Feet/Batch	81
Total Cubic Feet	648

Comments

FOR pipes

SOLD ONE pallet CEMENT
TO ENVIRON 40 BAGS

Slurry Systems, Inc. Vibrated Beam Production Summary

Job No. 026-05VBS-IN
From Date 5/15/06 to Date _____
Page 1 of _____
Prepared by: JLW

Date	Location Start	Location Stop	Avg. Depth (Ft)	Linear Footage Day	Linear Footage To Date	Square Footage Day	Square Footage To Date	Slurry Volume (Ft3) Day	Slurry Volume (Ft3) To Date	Width (In)
5-15-06	0+00	0+61.8	22.04	61.8	61.8	1362.07	1362.07	486	486	4.28
5-16-06	North	To South	21.32	87.2	149	1859.10	3221.17	891	1377	5.75
5-17-06			19.134	160.3	309.3	3067.18	6288.35	1055	2430	4.11
5-18-06			17.74	131.3	440.6	2329.26	8617.61	1053	3483	5.42
5-19-06			22.92	156	596.6	3575.52	12193.13	1296	4779	4.34
5-20-06			26.57	88.6	685.2	2354.10	14,547.23	891	5670	4.54
5-22-06			25.74	74.3	759.5	1912.48	16459.44	810	6480	5.08
5-23-06			21.86	105.1	864.6	2297.48	18757.14	891	7371	4.65
5-24-06			23.19	136.4	1001	3163.11	21920.25	1134	8505	4.30
5-25-06			23.88	42	1043	1002.96	22,923.21	567	9072	6.78

Slurry Systems, Inc. Material Control

Job No. 026-05VBS-IN
Date 6-15-06
Page 1 of _____
Prepared by: [illegible]

SU M TU W TH F SA

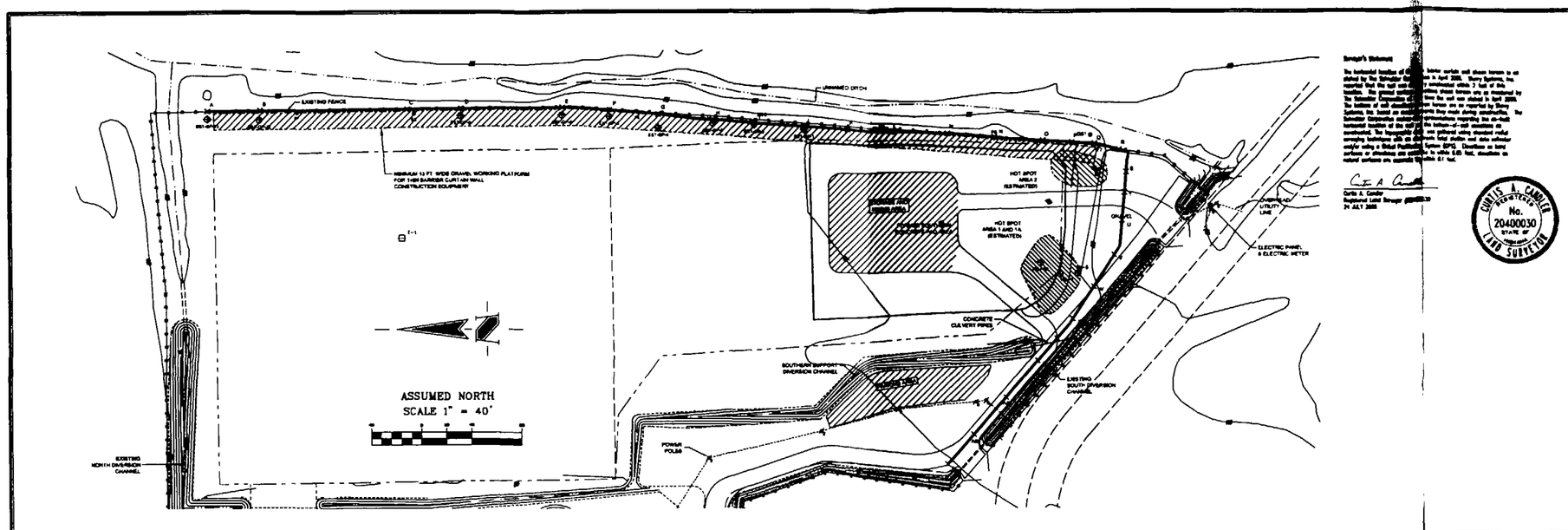
Today's Date	Sq. Footage Remaining	CLAY Bags Delivered	CLAY Bags Used	CLAY Bags Total Used	CLAY Bags Total On-Site	CLAY Pounds Total On-Site	CEMENT Bags Delivered	CEMENT Bags Used	CEMENT Bags Total Used	CEMENT Bags Total On-Site	CEMENT Pounds Total On-Site	Comments
		Initial Inventory			900	45000	Initial Inventory			1280	102400	
5-15-06		900	36	36	864	43200	1280	42	42	1238	99040	
5-16-06			66	102	798	39900		77	119	1161	92880	
5-17-06			78	180	720	36000		91	210	1070	85600	
5-18-06			78	258	642	32100		91	301	979	78320	
5-19-06			96	354	546	27300		112	413	867	69360	
5-20-06			66	420	480	24000		77	490	790	63200	
5-22-06			60	480	420	21000		70	560	720	57600	
5-23-06			66	546	354	17,700		77	637	643	51440	
5-24-06			84	630	270	13,500		98	741	545	43,600	
5-25-06			42	672	228	11,400		49	790	496	39,680	

Slurry Systems INC.
THE DRIVING FORCE SM

APPENDIX C:
AS-BUILT

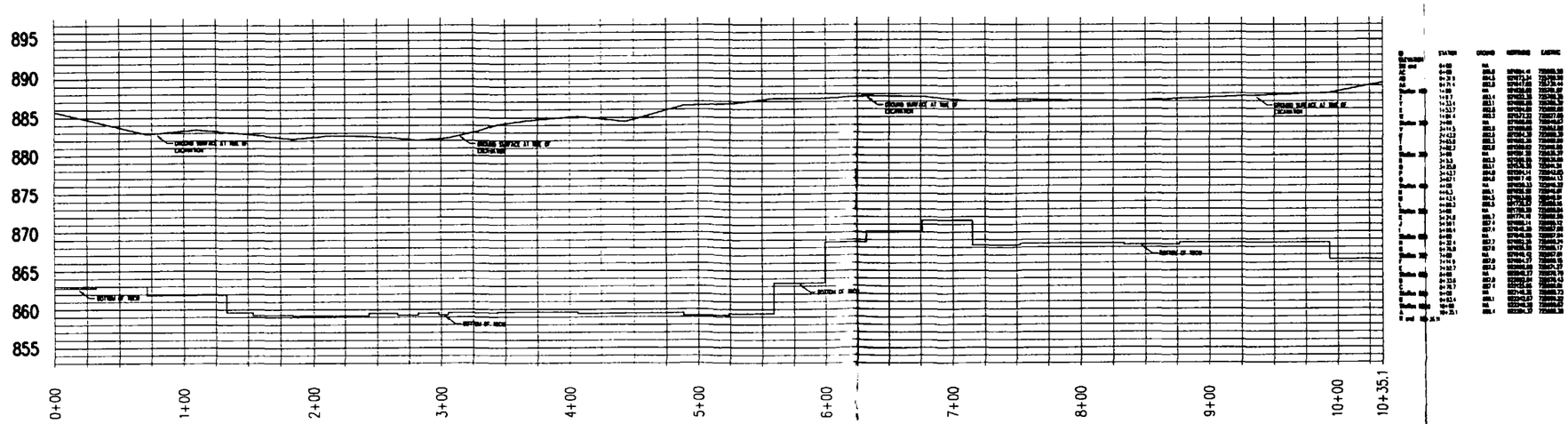
FINAL COMPLETION REPORT
FOR
VIBRATED BEAM SLURRY WALL

ENVIRO-CHEM CORPORATION
ZIONSVILLE, IN



EXISTING GROUND PLAN

SCALE: 1"=40'



EXISTING PROFILE AT TBCW LINE

SCALE: HORZ.: 1"=40' VERT.: 1"=4'

LEGEND

Schneider

THE SCHNEIDER CORPORATION
Historic Fort Harrison
8901 Otis Avenue
Indianapolis, IN 46216-1037
Telephone: 317.826.7100
Fax: 317.826.7200
www.schneidercorp.com

Architecture
Civil Engineering
Environmental Engineering
Geotechnical Services
GIS + LIS
Home Builder Services
Interior Design
Land Surveying
Landscape Architecture
Transportation Engineering

PROJECT INFORMATION:
ECC at Northside Landfill
Wall Asbuilt
Thin Barrier Curtain Wall Profile
Boone County, Indiana

CLIENT INFORMATION:
Slurry Systems, INC
8900 Otis Avenue, Indianapolis, Marion, 46216

DATE: 7 July 2008	PROJECT NO.: 799.010
DRAWN BY: CAC	CHECKED BY:

REVISIONS:
10 Sept 08- CAC- Add northing and easting to GPS

DRAWING FILE: E:/799/799.010/799.010.dwg

SHEET NO.: 1