APPENDIX J

HET FIELD NOTES

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.

Groundwater Field Parameter Data
Project Name: CASTEX
Project No. 1009.A25
Sampled By: DCR

Rev: 2/17

Well# / Size	Time	Temp. °C	DO%	DO mg/l	~~Specific Conductivity mS/cm~~ TDS	Conductivity mS/cm	pH SU	pH MV	ORP MV	Turbidity NTU	Vol. Purged
CD-17A2	SAMPLED WITH PERISTALTIC PUMP,										
Date	TURBINE SET @ TD										
6/18/24	1506	25.2			958	1375	7.59		53	—	0
Total Depth	1515	23.0			979	1400	7.63		-7	8.80	1.0
49.50	1521	22.9			986	1409	7.53		-90	2.73	1.5
Water Level	1527	22.9			991	1415	7.46		-104	2.14	2.0
17.74	1534	22.7			990	1416	7.43		-104	3.10	2.5
Volume	1535	STOP PURGING									
Stick Up	~~1~~ 1615	MOVED TO CONTINUE SAMPLING									
6	CD-17A1										
GPS											
Sample Time											
1540	Number of times dried: 0				Analyses: FULL KIT						

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Environmental Consultants

Client: Liskow & Lewis
Project Name: Castex
Project Location: Jennings, La

Project No.: 1009.475
Date: 4/14/25
Page 1 of 1

1100 ~~0800~~ - EM/AS left HET in #243.
1200 - Arrive on site. ICON on site.
1300 - WHE on site. Rig delivered to muster point.
- Andy held safety meeting & field work kick off meeting. All inspections completed.
- Began unloading equipment
1340 - All personell on site.
- Brent & Liskow personell conducting visual site visit. Megan w/ WHE crew.
- Staged rig near CD-10R location. Spoke w/ Targa pipeline personell about location.
- All field work completed today.
1600 - All personell off site.
1700 - Arrive @ HET

EM

On Site

Eric Montesano
Andy Schwartzenburg
Brent Pooler
] HET

Joe Heaton
Troy Vickers
Mark McNamara
Court VonTussell
] Liskow

Lester Young
Will Collins
Mike Marlin
] WHE

Megan Loop - ICON

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Environmental Consultants
91 Apollo Road
Scott, Louisiana 70583
(337) 261-1963 Fax (337) 261-1953

BORING No. pg 1 of 3 CD-10R

PROJECT NAME: CASTEX
PROJECT NUMBER: 1009.475
LOCATION: SEMINARY LA
DRILLING METHOD: SONIC 8750LS GP
SAMPLING METHOD:
GROUND ELEVATION:
TOP OF CASING:
LOGGED BY: DL
REMARKS: 30.18340836, -92.62568827

DATE STARTED: 4/15/25
DATE COMPLETED: 4/15/25
CASING TYPE/DIAMETER:
SCREEN TYPE/SLOT:
SAND PACK TYPE:
GROUT TYPE/QUANTITY:
DEPTH TO WATER:
GROUNDWATER ELEVATION:
TOTAL DEPTH: 90' BLS 40'

Recovery	PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE ID	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	E.C.
									0-5' NOT LOGGED	
						2			5-10 CLAY, MOD SILT CONTENT, BROWN AND GREY, LOW MOISTURE, MODERATE TO HIGH DENSITY, FE NODULES @ 5.6'	
10'						4				
			0915			6				1.08
						8				0.8
						10				1.21
						12			0-1.0 SILT, HIGH CLAY CONTENT, BROWN, LOW MOISTURE, LOW DENSITY	0.91
						14				0.95
9'			0930			16			1.0-3.4 CLAY, HIGH SILT CONTENT, BROWN, LOW	1.95
						18			3.4-4.1 SILT, TAN, DAMP, LOW DENSITY	1.99
						20			4.1-9' CLAY MOD SILT, TAN, LOW MOIST/DENSITY	0.67
						22			0-2.8' CLAY, AS ABOVE	1.46
						24			2.8-3.4 SILT, BROWN, DAMP, LOW DENSITY	1.4
9'			0950			26			3.4-8.1 CLAY, MOD SILT, BROWN, LOW MOIST	1.4
						28			8.1-9 SILT, MOD CLAY, BROWN, LOW MOISTURE	1.8
						30			0-1.4 SILT, AS ABOVE	0.4
						32			1.4-3.0 CLAY, MOD SILT, GREY, LOW MOIST LOW DENSITY	0.98
8'						34			3.0-4.5 SILT, MOD CLAY, GREY, DAMP, LOW DENSITY	0.73
						36				0.56
						38			4.5-8' CLAY, HIGH SILT, GREY, SATURATED LOW DENSITY	
						40				0.67

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91 Apollo Road
Scott, Louisiana 70583
(337) 261-1963 Fax (337) 261-1953

BORING No. CD-10R pg 2 of 3

PROJECT NAME
PROJECT NUMBER
LOCATION
DRILLING METHOD
SAMPLING METHOD
GROUND ELEVATION
TOP OF CASING
LOGGED BY
REMARKS

DATE STARTED
DATE COMPLETED
CASING TYPE/DIAMETER
SCREEN TYPE/SLOT
SAND PACK TYPE
GROUT TYPE/QUANTITY
DEPTH TO WATER
GROUNDWATER ELEVATION
TOTAL DEPTH

Recovery	PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE ID	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	E.C.	
						42				1.09	
8.5			1000	GEO TECH	X	44			0-8.5 CLAY, MOD SILT, GREY, LOW MOISTURE, HIGH DENSITY, MOD SILT 7.4-8.5'	1.16	
						46				1.25	
						48					
						50				0.4	
						52			0-3.7 SILT, GREY, SATURATED, LOW DENSITY 3.7-6.4 CLAY, MOD SILT 20.0 TEXT, GREY LOW MOISTURE, MOD DENSITY	0.35	1
9'			10:15	GEO TECH	X	54			6.4-9' SILT, MINOR CLAY, TAN, DRY LOW DENSITY	0.9	2
						56				1.07	
						58				0.2	3
						60					
						62			0-7.5 SILT, GREY, SATURATED, LOW DENS	0.4	4
9'			10:30			64			7.5-9.0 SILT, MINOR CLAY, GREY, LOW MOISTURE, DRY	0.44	5
						66				0.22	
						68				–	6
						70					
						72				0.93	7
9'			10:40			74			0-9.0 SILT, AS ABOVE, SATURATED	0.26	8
						76				0.18	
						78					
						80				0.23	9

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Environmental Consultants
91 Apollo Road
Scott, Louisiana 70583
(337) 261-1963 Fax (337) 261-1953

BORING No. pg 3 of 3 CD-10R

PROJECT NAME
PROJECT NUMBER
LOCATION
DRILLING METHOD
SAMPLING METHOD
GROUND ELEVATION
TOP OF CASING
LOGGED BY
REMARKS

DATE STARTED
DATE COMPLETED
CASING TYPE/DIAMETER
SCREEN TYPE/SLOT
SAND PACK TYPE
GROUT TYPE/QUANTITY
DEPTH TO WATER
GROUNDWATER ELEVATION
TOTAL DEPTH

PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	
					82				0.2
					84			8-9.6 SILT, AS ABOVE, MINOR VFG SAND	0.14
9.7'		1115			86			9.6-9.7 SAND, VFG, GREY, SATURATED	0.28
					88			LOW DENSITY	
					90				0.14
					92				
					94				
					96				
					98				
					100				
					102				
					104				
					106				
					108				
					110				
					112				
					114				
					116				
					118				
					120				

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Client: Liskow & Lewis
Project Name: Castex
Project Location: Jennings, La

Project No.: 1009.A75
Date: 4/15/2025
Page 1 of 2

0700 – EM / DC / AS left HET in #43.
– Arrive on site @ Staging area. 71°F, overcast. All personell on site.
– Andy held safety meeting.
– ERM conducting Ecological Study. Ashley (ICON) following ERM & Jody.
– Megan (ICON) following HET & WHE.
– Set up on CD-10R location following clearance by EMC.
↳ 2 lines observed, perpendicular to each other.

On site
Eric Montesano, Darryl Carroll, Andy Schwartzenburg — HET
Joe Austin, Scott Kotara — EMC
Lester Young, Mike Marlin, Will Collins — WHE
Megan Loop, Ashley Bergeron — ICON
Jody Shugart – EM
Karen Cejas, Sam Schwippert, Connor Matherne — ERM

– Used post hole digger on 0-5' to clear location to drill.
– Began drilling @ CD-10R location.
Geoprobe 8150LS (sonic) pushing 6" x 10' steel barrel.
↳ 4" sample extruded into plastic liner.
See boring log

CD-10R (30.18340836, -92.62568827)

TD = ~~80' BLS~~ EM 90' BLS

– Completed drilling CD-10R location to 90' BLS.
– WHE lowered tremie to TD & pumped grout from TD to surface. Removed as they filled. Grouted to surface.

Used ~ 65 gal.

– Grout slumping to ~ 20' BLS. Will top off tomorrow.

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Client: Liskow & Lewis
Project Name: Castex
Project Location: Jennings, La

Project No.: 1009.475
Date: 4/15/25
Page 2 of 2

- Mob all equipment & rig to next location @ CD-18A. Located along Bruce Ln.
- While equipment was on "busy" road (Castex Landing) HET & WHE used trucks to flash oncoming traffic & stop civillians as needed.
- Set up on CD-18A. Staged for drilling. Post hole digger to 5' BLS. Set first pipe in ground.

1600 - All personell off site.
1650 - Arrive @ HET

EM

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants
91 Apollo Road
Scott, Louisiana 70583
(337) 261-1963 Fax (337) 261-1953

Pg. 1 of 2

BORING No. CD-18R

PROJECT NAME: Castex
PROJECT NUMBER: 1009.A75
LOCATION: Jennings, La
DRILLING METHOD: GP 8150 LS
SAMPLING METHOD: 4" X 10' Steel
GROUND ELEVATION:
TOP OF CASING:
LOGGED BY: EM
REMARKS: 30.17845250, -92.6179751l

DATE STARTED: 4/16/25
DATE COMPLETED: 4/16/25
CASING TYPE/DIAMETER:
SCREEN TYPE/SLOT:
SAND PACK TYPE:
GROUT TYPE/QUANTITY:
DEPTH TO WATER:
GROUNDWATER ELEVATION:
TOTAL DEPTH: 80' BLS

Recovery	PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE ID	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	E.C.
						2	ML		(0-5' removed w/ post hole digger) 0-4' Silt, min clay, gravel @ 0-1.3' 4-5' Silty Clay, brown	
						4	CL			
			0835			6			0-7.0' Clay, min silt, brown & gray, Fe staining, Mn staining, low moist, low to mod dense	2.38
7.0'						8	CL			2.60
										2.60
						10				2.37
						12	CL		0-4.0' Clay, min silt increase w/ depth, gray & brown, Fe staining, Ca frags @ top 1'	2.43
						14			4.0-5.8' Clayey Silt, brown, clay increase w/ depth, low moist, low dense	3.18
9.4'			0845			16	ML		5.8-6.7' Silty Clay, gray, low moist, low dense	1.20
						18	CL		6.7-9.4' Clay, gray, mod silt, low moist, low dense	1.20
						20				
						22	CL		0-3.4' Clay, gray, orange-brown Fe staining, Ca frags throughout, low moist, mod dense	2.52
			0855			24	ML		3.4-6.9' Silt, high clay content, gray, low moist, low dense	1.02
8.2'						26			6.9-8.2' Clay, gray, low moist, mod dense	0.90
						28	CL			2.31
						30				
						32	CL		0-1.0' Clay, min to mod silt increase w/ depth, gray, low moist, low dense	0.98
						34			1.0-8.6' Silt, high clay content decreasing w/ depth, gray & brown, low moist to damp, low dense	0.58
8.6'			0905			36				0.49
						38				
						40				0.63

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Environmental Consultants
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Scott, Louisiana 70583
(337) 261-1963 Fax (337) 261-1953

pg. 2 of 2

BORING No. CD-18R

PROJECT NAME: Castex
PROJECT NUMBER: 1009.A75
LOCATION: Jennings, La
DRILLING METHOD: Geoprobe 8150 LS
SAMPLING METHOD: 4" x 10' Steel
GROUND ELEVATION:
TOP OF CASING:
LOGGED BY: EM
REMARKS:

DATE STARTED: 4/16/25
DATE COMPLETED: 4/16/25
CASING TYPE/DIAMETER:
SCREEN TYPE/SLOT:
SAND PACK TYPE:
GROUT TYPE/QUANTITY:
DEPTH TO WATER:
GROUNDWATER ELEVATION:
TOTAL DEPTH: 80' BLS

Recovery	PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE ID	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	E.C.
							ML		0-1.0' SAA	
						42	CL		1.0-1.8' Clay, gray, low moist, low dense, min silt	1.45
						44			1.8-5.3' Clayey Silt, gray, damp, low dense, clay lens @ 2.6-2.9	0.96
8.5'			0915			46	ML		5.3-8.5' Silt, brown, mod moist, low dense	0.60
						48				0.60
						50				
						52	ML		0-2.5' Clayey Silt, clay increase w/ depth, low moist, low dense	1.28
						54			2.5-5.4' Clay, gray, low moist, low to mod dense, min to mod silt	0.82
9.6'			0950			56	CL		5.4-8.8' Silty Clay, gray, low moist, low dense	1.14
						58			8.8-9.6' Silt, brown & gray, mod to high moist, low dense	0.64
						60	ML			
						62	ML		0-1.7' Silt, brown & gray, high moist to sat, low dense	0.35
						64			1.7-3.8' Silty Clay, gray, low moist, low dense	0.70
9.5'			1010	(64-66) GEO-TECH	X	66	CL		3.8-9.5' Clay, gray, low moist, mod dense, min silt @ 6.3-6.7' & 8.8-9.4'	0.57
						68				1.19
						70				
						72			0-9.2 SAA, wood @ 4.9-5.3', min silt @ top w/ wood frags	1.49
9.2			1035	(72-74) GEO-TECH	X	74	CL			1.26
						76				1.56
						78				
						80				1.21

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Environmental Consultants
91 Apollo Road
Scott, Louisiana 70583
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BORING No. DB-01 pg 1 of 2

PROJECT NAME: CASTEX
PROJECT NUMBER: 1009.A75
LOCATION:
DRILLING METHOD: SONIC 8750/6 GP
SAMPLING METHOD: –
GROUND ELEVATION: –
TOP OF CASING: –
LOGGED BY: DCL
REMARKS: 30.18263556, -92.62040182

DATE STARTED: 4/16/25
DATE COMPLETED: 4/16/25
CASING TYPE/DIAMETER:
SCREEN TYPE/SLOT:
SAND PACK TYPE:
GROUT TYPE/QUANTITY:
DEPTH TO WATER:
GROUNDWATER ELEVATION:
TOTAL DEPTH: 80' BLS

Recovery	PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE ID	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	E.C.	
						2			0-5' NOT LOGGED		1
						4					2
7'			1545			6			0-3.2' CLAY, MOD SILT, BROWN AND TAN, LOW MOISTURE, MOD DENSITY	2.42	3
					X	8			3.2-5.6 SILT, MINOR CLAY, BROWN AND TAN, LOW MOIST, LOW DEN	3.61	
						10			5.6-7.0 CLAY, MOD SILT, BROWN, LOW MOIST, MOD DEN	5.26	4
						12			0-2.0 SILT, HIGH CLAY CONTENT, GREY AND TAN LOW MOIST MOD DEN CLAY LENS [1.1-1.3, 1.7-1.9]	3.93	
4.7						14			2.0-4.7 CLAY, MOD SILT, TAN AND GREY, LOW MOISTURE, MOD DENSITY		
						16				2.60	5
						18				3.37	6
						20				1.82	7
						22			0-1.3 SILT, HIGH CLAY, GREY, DAMP TO SAT LOW DENSITY	0.75	
			1610		X	24				0.87	8
5.5						26			1.3-3' CLAY, MOD SILT, TAN AND GREY, LOW MOISTURE, MOD DENSITY	0.95	9
						28			3-5.5 SILT, MOD CLAY, TAN AND GREY, LOW DENSITY, SATURATE	1.45	10
						30					
						32					11
8'						34			0-8.0' SILT, AS ABOVE		12
						36					13
						38					14
						40					

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Environmental Consultants
91 Apollo Road
Scott, Louisiana 70583
(337) 261-1963 Fax (337) 261-1953

BORING No. DB-01 pg 2 of 2

PROJECT NAME: CASTEX
PROJECT NUMBER: 1009.475
LOCATION:
DRILLING METHOD: SONIC 8750 LS G
SAMPLING METHOD:
GROUND ELEVATION:
TOP OF CASING:
LOGGED BY: DCC
REMARKS:

DATE STARTED: 4/17/25
DATE COMPLETED:
CASING TYPE/DIAMETER:
SCREEN TYPE/SLOT:
SAND PACK TYPE:
GROUT TYPE/QUANTITY:
DEPTH TO WATER:
GROUNDWATER ELEVATION:
TOTAL DEPTH:

Recovery	PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE ID	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	E.C.	
						42			0-3.3' CLAY, MOD SILT, GREY, LOW MOIST	2.56	1
				160Z		44			MOD DENSITY	1.6	
9.2'			0830			46			3.3-8.9 SILT, MINOR CLAY, GREY, SATURATED	0.72	2
						48			LOW DENSITY	0.85	3
						50			8.9-9.2 CLAY, HIGH SILT, GREY, LOW MOIST/DEN		
						52			0-5.6 SILT, MOD CLAY CONTENT, GREY	0.78	1
						54			DAMP TO SATURATED, LOW DENSITY	0.58	
10'			0845			56			5.6-10' CLAY, MINOR SILT, GREY, LOW	1.57	2
						58			MOIST, HIGH DEN, LARGE CAN WOOD @		
				GED + 160Z		60			6.9'	2.04	3
				160Z		62				1.8	1
						64			0-7.5 CLAY, AS ABOVE	1.68	
10'			0900	GED		66			7.5-10' CLAY, HIGH SILT AND ORGANICS	1.01	2
						68			[WOOD], GREY, LOW MOISTURE/DENSITY	1.78	3
						70					
				GED 160Z		72			0-10' CLAY, MINOR SILT, GREY, LOW	1.5	1
10'						74			MOIST, MOD DENSITY, [WOOD @ 1.2', 2.7']	1.18	2
			0920			76				1.13	
						78					3
				160Z		80				1.25	

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
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Client: Liskow & Lewis
Project Name: Castex
Project Location: Jennings, La

Project No.: 1009.A75
Date: 4/16/25
Page 1 of 2

0700 – EM/DC/AS left HET in #43.
– Arrive on site. All personell on site. Held safety toolbox meeting.
– Geoprobe 8150 LS set up on CD-18R location along Bruce Ln.
– Began drilling. Pushing 6" x 10' steel.
↳ See boring log.
– Completed drilling CD-18R location to 80' BLS. HET collected select intervals & vacuum sealed them.
– ICON noted intervals collected but was not able to split.

on site
Eric Montesano
Darryrl Carroll
Andy Schwartzenburg
Megan Loop
Ashley Bergeron
Connor Matherne – ERM
Jody Shugart –
Lester Young
Will Collins
Mike Marlin
* Billy Smith
* Anthony Maxwell

HET
ICON
WHE

CD-18R (30.17845250, -92.61797511)

TD= 80' BLS.

– WHE grouted CD-18R location using tremie dropped to TD; Grout was then pumped down. Trim pipe was removed as they filled. Grouted to surface. Used ~ 60 gal.

– Began cleaning area. Mob equipment to staging area.
– Borehole was topped off w/ ~ 15 gal grout. Total ~ 75 gal.

1200 – ~~Set up~~ Mike Marlin off site. Billy & Anthony on site.
– Mob equipment to DB-1 location

1415 – Jody & Connor off site.

↓

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Project Location: Jennings, La

Project No.: 1009.A75
Date: 4/16/25
Page 2 of 2

- Mob all equipment to DB-1.
- Met w/ Targa pipeline personnel before drilling.
- Began drilling DB-1 location w/ Geoprobe 8150 LS pushing 6" x 40' to sample.
  ↳ See boring log.

DB-1 (30.182635556, -92.620401822)

- Completed drilling to 40' BLS for today. Will continue tomorrow.

1615 – All personnel off site.
1715 – Arrive @ LYET

EM

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Environmental Consultants

Client: Liskow & Lewis
Project Name: Castex
Project Location: Jennings, La

Project No.: 1009.A75
Date: 4-17-25
Page 1 of 1

0700 - EM/DC in #43. AS in #40 left HET.
0745 - Arrive on site. All personell on site. Andy held safety meeting.
- Mob to DB-1 to finish soil boring.
0815 - EM & Billy mob to Jennings waterworks to get water for grouting & drilling.

On site
Eric Montesano
Darryl Carroll
Andy Schwartzenburg
Megan Loop - ✓ ICON
Lester Young
Will Collins
Billy Smith
Anthony Maxwell
WHE

0900 - EM & Billy back on site.
0930 - Completed drilling DB-1 to 80' BLS
- Completed logging & sampling.
↳ See boring log.

DB-1 (30.18263556, -92.62040182)

TD = 80' BLS

1030 - WHE grouted to surface, through tremie, using the pump down method. Removed joints as they filled. Used ~ 165 gal.

- Topped off CD-10R w/ ~ 20 gal.
- Topped off DB-1 w/ ~ 10 gal
- All drums @ muster point (9 total)
- Staged everything @ muster point.
1100 - All personell off site.

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants
91 Apollo Road
Scott, Louisiana 70583
(337) 261-1963 Fax (337) 261-1953

BORING No. CD-05R

PROJECT NAME: Castex
PROJECT NUMBER: 1009, A75
LOCATION: Jennings, LA
DRILLING METHOD: Sonic Rig
SAMPLING METHOD: 4"x 10' barrel
GROUND ELEVATION: —
TOP OF CASING: —
LOGGED BY: JD
REMARKS:

DATE STARTED: 4-21-2025
DATE COMPLETED: 4-21-2025
CASING TYPE/DIAMETER: —
SCREEN TYPE/SLOT: —
SAND PACK TYPE: —
GROUT TYPE/QUANTITY: Bentonite Slurry
DEPTH TO WATER: —
GROUNDWATER ELEVATION: —
TD - 80 ft.

PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE ID	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	E.C.
								(0 to 5' removed with post hole digger)	
					2			0-3: Silt, min clay, gray + brown, low moist/dens	—
								3-5: Silt, mod clay, grayish brown with red staining, low moist/dens.	—
N/A					4				1.167
					6			clay, greenish gray with orange (Fe) stain, Mn, mod dens, low moist.	1.930
					8			4-4.5: Silty lens, low dens.	.879
6.1'								5.2-5.7: Silty lens, low moist to damp, low dens	2.32
					10			0-1.8: Silt, min to mod clay, mod moist, low dens,	.48
					12			1.8-5.6: Clay, Ca, Fe, light gray, red stain, mod dens, low moist	2.04
					14			5.6-6.5: Silt, mod VFG sand, min clay, damp, brown gray, low dens.	1.91
					16			6.5-9.4: Clay, Ca, red stain, low dens, gray	1.22
					18				2.15
9.4'		1340	18-20	X	20			0-2: Silt, min clay, brown, saturated, low den	1.39
					22			2-7.1: clay, gray, Fe staining, low to mod dens, Ca, low moist, 3.5-4.0: Silty lens, damp, 5.3: iron nodule	1.68
					24				2.35
					26			7.1-8.7: Silt, mod clay, brownish gray, damp, low dens, 7.5-8: Clay lens	1.76
					28				2.08
8.7'					30			0-3.7: Silt, min to mod clay, (Fe with depth) wet, low dens, brown gray	0.48
					32			3.7-8.1: Clay, gray, low dens, low moist, 5.3-5.8: Silt lens.	0.62
		1420	34-35.5	X	34			8.1-9.5: Silt, min clay, dark gray, wet, low dens. shell frags	1.25
					36				1.25
					38				
9.5'					40				0.61

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BORING No. CD-05R

PROJECT NAME: Castex
PROJECT NUMBER: 1009.A75
LOCATION: Jennings, LA
DRILLING METHOD: Sonic Rig
SAMPLING METHOD: 4" x 10' barrel
GROUND ELEVATION:
TOP OF CASING:
LOGGED BY: JD
REMARKS:

DATE STARTED: 4-21-2025
DATE COMPLETED: 4-21-2025
CASING TYPE/DIAMETER:
SCREEN TYPE/SLOT:
SAND PACK TYPE:
GROUT TYPE/QUANTITY: Bentonite Slurry
DEPTH TO WATER:
GROUNDWATER ELEVATION:
TD - 80 ft.

PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	
					42			0-1.8: silty clay, gray, low dens, mod moist.	
								1.8-3.0: clayey silt, gray, low dens, mod moist to wet	.65
					44			3.0-4.4: clay, mod silt, gray, low dens, low moist.	.79
								4.4-7.6: silt, min to mod clay, gray, damp to wet, low dens,	.54
					46				
								7.6-9.2: clay, min silt to mod silt, gray, low dens, low moist.	.63
					48				
9.2'									1.01
					50			0-2: clay, min to mod silt, low dens, gray, low moist to damp (0-.5)	3.25
					52			2-6: Sandy silt, min to mod clay, gray brown, mod to high moist, low dens.	2.29
					54			6-9.7: clay, wood, organics, peat at 7.0', min silt, Fe at 6.4', gray, low to mod dens, low moist.	2.99
					56				6.99
					58				
9.7'									9.19
					60			0-5.9': Clay, min silt, shell frags, gray, (Peat 4-5) low dens, dens inc. with depth, low moist. Fe at bottom 4-5.5'.	8.30
					62				8.95
					64			5.9-8.0: silt, min to mod clay, trace sand, low dens, damp to wet, gray	6.14
					66			8.0-10.8: clay, min silt, gray, wood at 8.5'; 9.3-9.4 is silty lens, low dens, low moist.	5.39
					68				
10.8'									3.74
					70			0-1: Sandy silt, gray, saturated, low dens.	4.28
					72			1-9.9: clay, gray, Ca at 6.3' and 8.8-8.9', mod dens, low moist, Fe (minor)	3.44
					74				2.68
					76				1.76
					78				
9.9'		1550	78-80	X	80				1.12

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JD

Client: Liskow and Lewis
Project Name: Castex
Project Location: Jennings, LA

Project No.: 1009.A75
Date: 4-21-2025
Page 1 of 1

- 1100 - Left the office in truck 43.
- 1200 - Arrived on site. HET: JP, Andy, Brent
  - Sunny, warm conditions with overcast. Icon: Megan
  Walker Hill: Lester, Mike, and Will
- 1220 - Walker Hill is setting up on CD-05R
- 1235 - Digging first 5 ft.
  - Drilling to 40 ft.
  - Logging to 40 ft.
  - Walker Hill drilling to 80 ft.
  - Logging
- 1520 - Walker Hill going downhole to grout.
- 1600 - Grouted with 70 gallons from TD to surface
  - finish logging to 80 ft. See log for details.
  - Did not encounter pressurized gas while drilling or grouting
  - Dumping soil cores into two waste drums.
- 1615 - Leaving the site.
- 1705 - Back at the shop

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BORING No. CD-12R

PROJECT NAME: Castex
PROJECT NUMBER: 1009.A75
LOCATION: Jennings, La
DRILLING METHOD: GP 8150 LS
SAMPLING METHOD: 4" x 10' Steel
GROUND ELEVATION:
TOP OF CASING:
LOGGED BY: EM
REMARKS: 30.18525282, -92.62315677

DATE STARTED: 4/22/25
DATE COMPLETED: 4/22/25
CASING TYPE/DIAMETER:
SCREEN TYPE/SLOT:
SAND PACK TYPE:
GROUT TYPE/QUANTITY:
DEPTH TO WATER:
GROUNDWATER ELEVATION:
TOTAL DEPTH: 80' BLS

Recovery	PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE ID	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	E.C.
						2	ML		(0-5' w/ post hole digger) 0-2' Silt & clayey silt, brown, low moist, low dense	
						4	CL		2-5' Clay, min to mod silt, brown, low moist, low dense	
						6			0-5.4' Clay, brown, min silt, low moist, low dense Fe staining	1.31
5.4'			0955	(8-10) 1602		8	CL			1.32
						10	CL		0-6.6' Silty Clay, brown, low moist, low dense	2.10
						12	ML		0.6-3.4' Silt, min clay, brown, mod to high moist, low dense	1.79
						14	CL		3.4-5.4' Silty Clay, brown, low moist, low dense	0.71
10.0'			1010	(16-18) 1602		16	ML		5.4-6.0' Silt, mod to high clay, brown, damp, low dense	1.86
						18	CL		6.0-10.0' Clay, min silt, gray & brown, low moist, mod dense, Ca frag @ 7.5-8.0' & 9.4-10', Fe staining	2.02
				20-21 Geo tech		20				1.54
									0-4.0' Clay, gray, low moist, mod dense, Fe staining, Ca frags,	1.76
				(22-24) 1602		22				
						24			4.0-6.4' Silty Clay, brown, low moist, low dense, Ca frags	2.04
9.5'			1020				CL			1.19
				(26-28) 1602		26			6.4-9.5' Clay, red brown & gray, low moist, mod dense to high dense	2.12
						28				
				29-30 Geo tech		30				1.97
							ML		0-1.6' Silt, min to mod clay, gray, low moist, low dense	
						32	CL		1.6-2.8' Silty Clay, gray & brown, silt increase w/ depth, low moist, low dense	0.52
						34	ML		2.8-5.0' Silt, brown, high moist, low dense	0.41
9.0'			1050							
						36	CL		5.0-7.5' Silty Clay, silt increase w/ depth, gray damp ~~to high moist~~ SM, low dense	1.03
						38	ML		7.5-9.0' Silt, gray, sat, low dense	0.52
						40				0.62

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Scott, Louisiana 70583
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BORING No. CD-12R

PROJECT NAME: Castex
PROJECT NUMBER: 1009.A75
LOCATION: Jennings, La
DRILLING METHOD: GP 8150LS
SAMPLING METHOD:
GROUND ELEVATION:
TOP OF CASING:
LOGGED BY: EM
REMARKS:

DATE STARTED: 4/22/25
DATE COMPLETED: 4/22/25
CASING TYPE/DIAMETER:
SCREEN TYPE/SLOT:
SAND PACK TYPE:
GROUT TYPE/QUANTITY:
DEPTH TO WATER:
GROUNDWATER ELEVATION:
TOTAL DEPTH: 80' BLS

Recovery	PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE ID	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	E.C.
						42	ML		0-2.5' Silt, SAA 2.5-7.4' Clay, red brown & gray, low moist, mod dense	0.42
						44				1.46
9.5'			1115	44-46 Geo tech 46-48 1602	X	46	CL		7.4-9.5' Silt, min VFG sand, brown, mod to high moist, low dense	1.56
						48	ML			1.84
						50				0.25
						52			0-6.7' Silt, min VFG sand, brown, sat, low dense	0.73
						54			6.7-9.0' Silt, min to mod VFG sand, sat, low dense, sandy silt lens @ 6.7-8.0'	0.43
9.0'			1130	54-56 1602	X	56	ML			0.45
						58				0.42
						60				0.40
				60-62 1602	X	62			0-7.5' Silt, brown, min clay in few spots, high moist, low dense	0.98
						64				0.59
7.5'			1145			66	ML			0.54
						68				0.61
						70				0.09
				70-72 1602	X	72			0-5.6' SAA	0.48
8.2'						74			5.6-8.2 Silt, min VFG sand, brown & gray, low moist, low dense	0.52
			1200			76	ML			0.47
				78-80 1602	X	78				0.25
						80				0.11

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
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Client: Liskow & Lewis
Project Name: Castex
Project Location: Jennings, La

Project No.: 1009.A75
Date: 4/22/25
Page 1 of 1

0700 – EM left HET in #43.

0830 – Arrive on site @ primary muster point.
– Stopped @ ~~Jeff~~ Jennings Waterworks to fill totes before coming to site.
– Held toolbox safety meeting.
– Mob geoprobe 8150LS to CD-12R location. Set up sampling area.
– Began drilling w/ Sonic rig, pushing 4" x 10' steel barrels & extruding sample into dedicated plastic ~~sleeve~~ core bag.
↳ See boring log for details.

On site
Eric Montesano – HET
Megan Loop – KON
Lester Young
Mike Martin } WHE
Will Collins

CD-12R (30.18525282, -92.62315677)
TD = 80' BLS

1230 – Completed drilling CD-12R to 80' BLS. WHE began grouting. Dropped 1" tremie to TD & pumped grout from TD to surface. Removing PVC & 4" x 10' barrels as they filled.
Used ~ 80 gal.

1430 – Completed grouting CD-12R
– Mob all equipment out from CD-12R location. Stage equipment near road & levee where CD-12R "road" ends. Will mob to CD-10R in morning.

1550 – Completed work for today. All personnel off site.

1700 – Arrive @ HET

EM

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BORING No. HA-2R

PROJECT NAME: Castex
PROJECT NUMBER: 1009.A75
LOCATION: Jennings, La
DRILLING METHOD: GP T822 DT
SAMPLING METHOD: 3/4" x 4' Dual Tube
GROUND ELEVATION:
TOP OF CASING:
LOGGED BY: EM
REMARKS: 30.183816944, -92.62040570

DATE STARTED: 4/23/25
DATE COMPLETED: 4/23/25
CASING TYPE/DIAMETER:
SCREEN TYPE/SLOT:
SAND PACK TYPE:
GROUT TYPE/QUANTITY:
DEPTH TO WATER:
GROUNDWATER ELEVATION:
TOTAL DEPTH: 30' BLS

Recovery	PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE ID	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	E.C.
3.4'	5.0		1250	(0-2) (3) 40ml (2) 8oz	X	2	CL		0-0.7' Silty Clay, brown, low moist, very dry, low dense, grass @ top	2.29
	16.4		1255	(2-4) (3) 40ml (2) 8oz	X	4			0.7-2.4' Clay, min silt, brown, min Fe stain, min black staining @ 2.1-2.4	3.41
2.2'	23.1		1315	4-6 (3) 40ml (2) 8oz	X	6	CL		2.4-3.4' Silty Clay, dk brown w/ black staining, low moist, low dense	5.44
	24.8		1320	6-8 (3) 40ml (2) 8oz	X	8			0-0.3' ~~Sand~~ Silty Clay brown, low moist, low dense; 0.3-2.2' Clay, min silt, black silty material throughout, silt lens @ 1.3-1.5'	5.73
3.3	53.3		1335	8-10 (3) 40ml (2) 8oz	X	10	CL		0-1.4' Silty Clay, black, min gravel, low dense, low moist	7.38
	7.2		1340	10-12 (3) 40ml (2) 8oz	X	12			1.4-2.2' Clay, brown-gray, low moist, mod dense, min black staining @ 2.1-2.3; 2.2-3.3' Clay, brown & gray, low moist, mod dense Ca frags	7.10
3.9	18.2		1400			14	CL		0-3.9' Clay, gray & brown, low moist, mod dense, silt lenses @ 1.9-2.25', 2.45-2.6, 3.4-3.5, Ca frags throughout clay	7.15
	22.0		1405	14-16 (3) 40ml (2) 8oz	X	16				6.87
3.9	9.1		1415			18	CL		0-3.9' Clay, gray & brown, Ca frags / Shell debris @ 0.8-1.1, silt lenses @ 1.2-1.3, 1.4-1.425, 1.7, 1.9, 2-2.1, 2.8-2.9, large shells @ 3.2-3.5, silty @ bottom	6.83
	13.1		1420	(18-20) (3) 40 (2) 8oz	X	20				4.27
	4.4		1430			22	ML		0-2.6' Silt, high clay, brown, damp, low dense; 2.6-3.9' Clay, min silt decrease w/ depth, brown, low moist, ~~low dense~~ mod dense	3.20
	2.3		1435	(22-24) (3) 40 (2) 8oz	X	24	CL			4.40
3.9'	2.8		1455			26	CL		0-1.5' Silty Clay, brown, Ca frags / shell frags throughout, low to mod moist, low dense; 1.5-2.9 Clay, gray & brown, low moist, mod dense	2.48
	3.3		1500			28	ML		2.9-3.9' Silt, brown, mod-high moist, low dense	3.75 / 1.79
4.0'	1.7'		1515	28-30 (2) 8oz	X	30	ML		Silt, brown, sat, low dense 0-4.0'	1.64 / 1.21
						32				
						34				
						36				
						38				
						40				

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow & Lewis
Project Name: Castex
Project Location: Jennings, La

Project No.: 1009.A75
Date: 4/23/2025
Page 1 of

0645 – EM left HET in #43
0730 – Arrive on site. ICON on site.
0750 – WHE on site. Held safety meeting. Rig staged near road & levee intersection. Mob rig to CD-10R location.
– Set GP 8150LS on CD-10R & began drilling.
– Using 4" x 10' barrel to drill & dispose of cuttings directly into 55gal drum. No sampling until (60-70') ↳ See boring log

On Site
Eric Montesano – HET
Megan Loop – ICON
Lester Young, Mike Martin, Will Collins – WHE
Marcus Jackson, Hayden Wallis, Lane Lemaitre – HET

– This location is ~3' from CD-10R drilled last week.

– Drilled to 70' BLS. HET collected:
- 60-62'
- 62-64'
- 64-66'
- 66-68'
- 68-70'

} USCS & Grain Size

– WHE setting up to grout. Tremie through 4" x 10' barrels & grout pumped from bottom to surface. Removed barrels as they filled. ↳ Used ~70 gal.
1100 – MJ, HW, LL on site (HET)
– WHE topped all other boreholes to surface.
– HET staged rig on 1st location.

GP 7822 DT on HA-2R. Pushing 3 1/4" x 4' dual tube to sample.

HA-2R (30.183869444, -92.620405570)

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Client: Liskow & Lewis
Project Name: Castex
Project Location: Jennings, La

Project No.: 1009.A75
Date: 4/23/25
Page 2 of 2

1530 - WHE off site
- Completed drilling & sampling HA-2R. See boring log.

HA-2R TD = 30' BLS

- Grouted through 3'/4 rods. Removed as they filled. Grouted to surface. Used ~ 15 gal

- Loaded materials. Disposed of soil cuttings in SS gal drum.
- 15 total drums w/ soil cuttings (HET drums)

1615 - All personell off site.
1700 - Arrive @ HET

EHL

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BORING No. SB-1

PROJECT NAME: Castex
PROJECT NUMBER: 1009.A75
LOCATION: Jennings, La
DRILLING METHOD: GP 7822 DT
SAMPLING METHOD: 3 1/4" x 4' Dual Tube
GROUND ELEVATION:
TOP OF CASING:
LOGGED BY: EM
REMARKS: 30.18440630, -92.62120311

DATE STARTED: ~~4/23/25~~ 4/24/25
DATE COMPLETED: ~~4/23~~ 4/24/25
CASING TYPE/DIAMETER:
SCREEN TYPE/SLOT:
SAND PACK TYPE:
GROUT TYPE/QUANTITY:
DEPTH TO WATER:
GROUNDWATER ELEVATION:
TOTAL DEPTH: 24' BLS

Recovery	PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE ID	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	E.C.
3.9'	1.3			0-2 (1) TC (2) 8oz	X	2	ML		0-0.7' Silt, mod clay, brown, low moist, low dense	
	4.0					4	CL		0.7-3.9' Clay, brown & red brown, low moist, low to mod dense, concretion @ 1.7' & 2.8'	0.65 / 1.36
3.9'	3.8					6	CL		0-3.9' Clay, brown & gray, low moist, mod to low dense, Ca frags @ 1.4-2.7', gravel @ 2.-2.5'	1.13
	1.8			6-8 (2) 8oz	X	8				1.88
3.8'	4.2			8-10 (1) TC (2) 8oz	X	10	CL		0-0.8' Clay, brown & gray, min silt increase w/ depth, low moist, low dense	1.10
	2.7					12	ML CL		0.8-1.9' Silty Clay, brown & gray, Ca frags @ 1.5-1.7', low moist dense; 1.9-3.0' Silt, brown, high moist, low dense; 3.0-3.8' Clay, gray, low moist, mod dense, silt lens @ 3.1-3.3	1.76
3.0'	3.2			13-15 (2) 8oz	X	14	CL		0-3.0' Clay, brown + gray, low moist, mod dense, Ca frags @ 1-1.2', 1.9-2.1', 2.5-2.7'	1.96
	2.0			15-16 (2) 8oz	X	16				2.28
4.0'	4.2					18	CL ML		0-0.6' Silty Clay, brown, low moist, low dense; 0.6-2.0' Silt, brown, high moist to sat, low dense, clay lens @ 1.5-1.8'	0.83
	3.7					20	CL		2.0-4.0' Clay, gray + brown, low moist, low to mod dense, Ca frags, silt lens @ 3.0-3.2'	1.52 / 0.62
3.9'	4.0			20-22 (2) 8oz	X	22	CL		0-2.3' Clay, gray, low moist, mod to high dense, shell frags @ 1.5-1.7' & 2.-2.3'	2.40
	0.4			22-24 (1) TC (2) 8oz	X	24			2.3-3.9' Clay, mod to high silt, brown, low to mod moist, low dense	0.70
						26				
						28				
						30				
						32				
						34				
						36				
						38				
						40				

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BORING No. S8-2

PROJECT NAME: Castex
PROJECT NUMBER: 1009.475
LOCATION: Jennings, La
DRILLING METHOD: Geoprobe 7822DT
SAMPLING METHOD:
GROUND ELEVATION:
TOP OF CASING:
LOGGED BY:
REMARKS: 30.18279813, -92.162033606

DATE STARTED: 4/24/25
DATE COMPLETED: 4/24/25
CASING TYPE/DIAMETER:
SCREEN TYPE/SLOT:
SAND PACK TYPE:
GROUT TYPE/QUANTITY:
DEPTH TO WATER:
GROUNDWATER ELEVATION:
TOTAL DEPTH: 24' BLS

Recovery	PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE ID	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	E.C.
	0		1440	0-2 (1) TC (2) 8oz	X				0-0.8' Silty Clay, brown & dk brown, low moist, low dense	1.30
2.2'	0		1445	2-4 (1) TC (2) 8oz	X	2	CL		0.8-2.2' Clay, brown, low moist, low dense, min to mod silt,	1.77
	0		1455			4	CL		0-0.9' Clay, SAA	
3.8'	0		1500	6-8 (2) 8oz	X	6	ML		0.9-3.4' Silt, brown, low moist, low dense, Clay lens @ 1.7-2.0', 2.5-2.6', 2.9-3.0'	2.25
						8	CL		3.4-3.8' Clay, gray, low moist, low dense, min Mn & Fe	3.86
3.1'	0		1505	8-10 (1) TC (2) 8oz	X	10	CL		0-0.8' Silty Clay, brown, low moist, low dense, staining; 0.8-3.1' Clay, gray & brown, low moist, mod dense, min Ca frags	3.46
	0		1510			12				3.05
4.0'	0		1520	12-14 (2) 8oz	X	14	CL		0-4.0' Clay, silty clay @ 1.75-1.95, 1.1-1.5, 2.2-2.6, 2.7-2.8, 3.6-3.65, gray & brown, mod dense in clay, low dense in silty clay.	1.37
	0		1525							1.48
4.0'	0		1530	16-18 (2) 8oz	X	16	CL		0-2.2' Clay, gray & brown, low moist, mod dense, Ca frag/shell frag	1.82
	0		1535			18	ML		2.2-~~4.0~~ 2.7' Silty Clay, brown, shell frag, ~~mod to high moist~~ low moist, low dense	0.49
4.0'	0		1540			20			2.7-4.0' Silt, min clay, mod to high moist, low dense	
	0		1545	22-24	X	22	ML		0-4.0' Silt, brown, min clay, high moist to sat, low dense	0.42
						24				0.51
						26				
						28				
						30				
						32				
						34				
						36				
						38				
						40				

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Environmental Consultants
91 Apollo Road
Scott, Louisiana 70583
(337) 261-1963 Fax (337) 261-1953

BORING No. SB-4

PROJECT NAME: Castex
PROJECT NUMBER: 1009.A75
LOCATION: Jenning, La
DRILLING METHOD: GP 7822 DT
SAMPLING METHOD: 3'/4" X 4' Dual Tube
GROUND ELEVATION:
TOP OF CASING:
LOGGED BY: EM
REMARKS: 30.18336765, -92.62141033

DATE STARTED: 4/24/25
DATE COMPLETED: 4/24/25
CASING TYPE/DIAMETER:
SCREEN TYPE/SLOT:
SAND PACK TYPE:
GROUT TYPE/QUANTITY:
DEPTH TO WATER:
GROUNDWATER ELEVATION:
TOTAL DEPTH: 24' BLS

Recovery	PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE ID	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	E.C.
3.3'	0		1105	0-2 (1) TC (2) 8oz	N	2	CL		0-0.8' Silty Clay, brown, low moist, low dense,	0.88
	0		1110	2-4 (1) TC (2) 8oz					0.8-1.7' Clay, min silt, brown, Fe staining, low moist, low dense	1.53
						4			1.7-3.3' Clay, lt brown, low moist, low dense, Fe staining	1.07
3.9'	0		1120			6	CL		0-3.9' Clay, lt brown, low moist, mod dense, Fe stain, Mn staining, Ca frags 2.2-2.6 & 3.1	1.52
	0		1125	7-9 (1) 8oz		8				1.48
3.9	0		1130	8-10 (1) TC (2) 8oz		10	CL / ML		0-0.9' Clay, gray, silty @ bottom, low moist, low dense	0.62
	0		1135				CL		0.9-2.0' Silt, orange brown & gray, sat, low dense	
						12			2.0-3.9' Clay, brown & gray, low moist, mod - high dense, Ca frags throughout	1.93
3.9	0		1200	12-14 (2) 8oz		14	CL		0-2.1 SAA	1.99
	0		1205						2.1-2.7' Silty Clay brown & gray, low moist, low dense, silt lens @ 2.1-2.3	1.50
						16			2.7-3.9' clay, ~~red~~ brown & gray, low moist, mod dense, Ca frags	
3.9	0		1215			18	CL		0-3.9' Clay, min silt, brown & gray, low moist, silt lens @ 0.5, 0.9-1.0, 1.5-1.6, 2.2, 2.8-2.9,	1.38
	0		1220	18-20 (2) 8oz						2.07
						20				
3.4	0		1225			22	ML		0-0.1 SAA	
	0		1230	22-24 (2) 8oz			CL		0.1-0.6' Clayey Silt, brown, high moist, low dense	0.62
									0.6-1.9' Silty Clay, brown, low moist to mod, low dense	
						24			1.9-3.4' Clay, min silt, red brown & gray	1.78
						26				
						28				
						30				
						32				
						34				
						36				
						38				
						40				

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow & Lewis
Project Name: Castex
Project Location: Jennings, La

Project No.: 1009.A75
Date: 4/24/25
Page 1 of

0730 - EM, LL in #43. HW/TW in #44 left HET.

0900 - Arrive on S.L. ICON arrives on S.L.
- Rig @ HA-2R. Mob to SB-1 location.
- Began drilling SB-1 w/ Geoprobe 7822DT pushing 3 1/4" x 4' Dual tube to sample.
- Completed drilling SB-1. ICON split samples. Grouted through 3 1/4 barrels. Removed as they filled.

SB-1 (30.18440630, -92.62120311)
TD = 24' BLS
Grout = ~44 gal

- Mob to next location @ SB-4. Set up geoprobe & began drilling. Sampling set up same as above.
- Completed drilling SB-4. Grouted same as above. Topped off SB-1.

SB-4 (30.18336765, -92.62141033)
TD = 24' BLS
Grout = ~16 gal

- Mob to next location @ SB-2.
- Spoke w/ pipeline personell from Targa. Dylan (337) 329-4353 (Targa)
  ↳ Cleared our borehole location > 30' from high pressure gas line.

↓

on S.L.
Eric Montesano
Hayden Wallis
Lane Lemaire
Todd Webb
} HET
Ashley Bergeron - ICON

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow & Lewis
Project Name: Castex
Project Location: Jennings, La

Project No.: 1009.A75
Date: 4/24/25
Page 2 of 2

- Set up on SB-2 location & began drilling w/ GP 7822DT pushing 3 1/4" dual tube to sample.
  ↳ See boring log.

- Completed SB-2. Grouted same as above. Used ~ 15 gal.

SB-2 (30.18279813, -92.62033606)
TD = 24' BLS

- Mob rig & equipment drier area for overnight.

1630 - All personell off site.
1715 - Arrive @ HET

END

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow & Lewis
Project Name: Castex
Project Location: Mermentau, LA

Project No.: 1009.A75
Date: 4/24/25
Page 1 of 1

0830 - Left HET (MG/NL) in truck #31 w/ honda pioneer to conduct Root Zone Investigation

0935 - Arrived on site / signed in => HET & ICON on site

1010 - Arrived @ H-01

1110 - Arrived @ H-02

- Lunch

1330 - Arrived @ H-03

1500 - Arrived @ H-04

1600 - Signed out / left site

* All data is collected on HET Root Zone Data Forms

Matt

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants
91 Apollo Road
Scott, Louisiana 70583
(337) 261-1963 Fax (337) 261-1953

BORING No. SB-3

PROJECT NAME: Castex
PROJECT NUMBER: 1009.A75
LOCATION: Jennings, La
DRILLING METHOD: GP V7822DT
SAMPLING METHOD: 3'/4" X 4' Dual Tube
GROUND ELEVATION:
TOP OF CASING:
LOGGED BY: EM
REMARKS:

DATE STARTED: 4/25/25
DATE COMPLETED: 4/25/25
CASING TYPE/DIAMETER:
SCREEN TYPE/SLOT:
SAND PACK TYPE:
GROUT TYPE/QUANTITY:
DEPTH TO WATER:
GROUNDWATER ELEVATION:
TOTAL DEPTH: 24' BLS

Recovery	PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE ID	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	E.C.
	0		0905	0-2 (1) TC (2) 8oz	X	2	ML		0-0.3 ~~Silty Clay~~ Clayey Silt, brown, high moist, low dense	
2.7'	0		0910	2-4 (1) TC (2) 8oz	X	4	CL		0.3-0.7' Clayey Silt, brown, low moist, low dense 0.7-2.7' Clay, brown, low moist, Fe stain, Mn stain low to mod dense	1.16 1.43
	0		0920	4-6 (1) 16	X	6	CL		0-2.1' SAA 2.1-3.9' Silt, brown, min clay, ~~low~~ mod moist, low dense, clay lens 2.5-2.7' & 3.8-3.9'	2.06
3.9'	0		0925			8	ML			0.62
	0		0930	8-10 (1) TC (2) 8oz	X	10	CL		0-0.9' Silty Clay, gray & brown, low moist, low dense, 0.9-3.7' Clay, gray & brown, low moist, low to mod dense, Fe & Mn staining, Silt lens @ 1.5-1.7', Ca frags/nodules throughout	2.20
3.7'	0		0935			12				2.06
	0		0950	12-14 (1) 16 oz	X	14	CL		0-0.3' SAA 0.3-1.9' Silty Clay, brown, low moist, low dense	1.04
3.9'	0		0955			16	ML CL ML		1.9-2.4' Silt, brown, mod to high moist, low dense 2.4-2.8' Clay, brown & gray, mod to high dense, Ca frags, low moist 2.8-3.9' Silt, brown, mod moist, low dense, Clay lens @ 3.4-3.5, 3.8-3.9 (mod-high dense)	1.58
	0		1000	16-18 (1) 16 oz	X	18	CL		0-3.1' Clay, brown & gray, low moist, mod to high dense, shells & shell frags throughout Silt lens @ 0.5-0.6	1.64
3.9'	0		1005			20			3.1-3.9' ~~Silt~~ Silty Clay, brown, ~~low~~ mod moist, low dense low to mod	0.91
	0		1010			22	ML		0-2.6' Silt, min to mod dry, brown, mod to high moist, low dense, shell frags	0.63
3.9'	0		1015	22-24 (1) 16 oz	X	24	CL		2.6-3.9 Clay, min silt, gray & brown, low moist, low dense, min shell frag, Silt lens @ 3.2-3.3	1.31
						26				
						28				
						30				
						32				
						34				
						36				
						38				
						40				

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow & Lewis
Project Name: Castex
Project Location: Jennings, La

Project No.: 1009.A75
Date: 4/25/25
Page 1 of 1

0730 – EM, CL in #43. HW in #44. TW/MG in 1/2 ton. (See MG notes) on site
– Arrive on site. Held safety meeting.
– Mob geoprobe to SB-3 location. Drilling w/ Geoprobe 7822DT pushing 3/4 x 4' dual tube to sample.
↳ See boring log for details

Eric, Hayden, Lane, Todd, Matt, Ashley – HET
(CON)

1030 – Completed drilling, logging, & sampling SB-3 location.

SB-3
TD = 24' BLS

– Grouted through 3/4 rods to surface. Used ~16 gal grout.

1040 – Mob rig to SB-1 location & pushed 1 hole to 4' BLS. Sampled (2-4') w/out logging. Same as previously logged this week.

SB-1 (2-4') @ 1040 (2) 8oz
(3) 40mL Methanol

– Loaded rig & equipment. Mob by foot to HA-10R location.

1115 – Sampled (0-2') w/ hand auger. Backfilled w/ remains.

HA-10R (0-2') @ 1125 (1) 16oz

1145 – Completed all field work. Sealed all drums & cleaned site.
– All personell off site.
– Arrive @ HET

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants
Lafayette, Louisiana

Root Zone Data Form

State: LA	Parish: Jefferson Davis	Section: 39	Township: 10S	Range: 3W	Date: 4/24/25	Location: H-01
Project/Site: Castex 1009.A75			Investigator(s): Matt G.			
Latitude: 30.18261771	Longitude: -92.62361600		Datum: NAD83	Other Info:		

HERBACEOUS SPECIES- [plot size = 5 feet radius]	ROOT ZONE INTERPRETATION		
	Depth BLS (Inches)	Root Mass Abundance	Remarks
Broom Sedge	0-2"	Abundant	Effective Root Zone
Marsh Elder	2-4"	Many	
Common Ragweed	4-7"	Common	
	7-14"	Sparse	
	14-18"	Very Sparse	
	18-24"	None	

SOIL PROFILE PROPERTIES

Soil Type: Crowley

Depth BLS (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist	Redox %	Type	Loc	Texture	Horizon	Remarks	N-Value
0-6"	10YR 4/3	100					Sil	Ap		<.70
6-24"	10YR 5/3	60	2.5YR 4/6	40			SiCl	Bt		<.70

Additional Colors:

Restrictive Layer(if observed): Type: Plow pan Depth (inches): 7"

Remarks: Trench 24" X 24" x 24"

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants
Lafayette, Louisiana

Root Zone Data Form

State: LA	Parish: Jefferson Davis	Section: 39	Township: 10S	Range: 3W	Date: 4/24/25	Location: H-02
Project/Site: Castex 1009.A75			Investigator(s): Matt G.			
Latitude: 30.18220414	Longitude: -92.62298842		Datum: NAD83	Other Info:		

HERBACEOUS SPECIES- [plot size = 5 feet radius]	ROOT ZONE INTERPRETATION		
Common Ragweed	Depth BLS (Inches)	Root Mass Abundance	Remarks
Carolina Crane's-Bill	0-1"	Abundant	Effective Root Zone
Brazillian Verbena	1-3"	Many	
Yellow Foxtail	3-7"	Common	
	7-12"	Sparse	
	12-16"	Very Sparse	
	16-24"	None	

SOIL PROFILE PROPERTIES

Soil Type: Vidrine

Depth BLS (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist	%	Type	Loc	Texture	Horizon	Remarks	N-Value
0-7"	10YR 4/3	100					Sil	Ap		<.70
7-11"	10YR 5/3	70	2.5Y 5/4	30			SiCl	E		<.70
11-24"	2.5Y 5/4	100					SiC	Bt	Ca Cresions	<.70

Additional Colors:

Restrictive Layer(if observed): Type: Plow Pan Depth (inches): 7"

Remarks: Trench 24"x20"x24"

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants
Lafayette, Louisiana

Root Zone Data Form

State: LA	Parish: Jefferson Davis	Section: 39	Township: 10S	Range: 3W	Date: 4/24/25	Location: H-03
Project/Site: Castex 1009.A75			Investigator(s): Matt G.			
Latitude: 30.18347846	Longitude: -92.62293295		Datum: NAD83	Other Info:		

HERBACEOUS SPECIES- [plot size = 5 feet radius]	ROOT ZONE INTERPRETATION		
	Depth BLS (Inches)	Root Mass Abundance	Remarks
Johnson Grass	0-2"	Abundant	Effective Root Zone
Bermuda Grass	2-4"	Many	
Brazillian Verbena	4-7"	Common	
Carolina Crane's Bill	7-17"	Sparse	
Virginia buttonweed	17-32"	Very Sparse	
	~~23-32"~~	~~None~~	
	32-36"	none	

SOIL PROFILE PROPERTIES

Soil Type: Crowley

Depth BLS (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type	Loc	Texture	Horizon	Remarks	N-Value
0-5"	10YR 3/3						Si l	Ap		<.70
5-11"	10YR 6/3						Si l	E		<.70
11-23"	10YR 4/2						Si Cl	Bt		<.70
23-36"	10YR 4/1	80	2.5YR 4/6	20			Si C	B2		<.70

Additional Colors:

Restrictive Layer(if observed):	Type:	Depth (inches):	

Remarks: Trench 26" x 24" x 24"

Hand auger 24-36"

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants
Lafayette, Louisiana

Root Zone Data Form

State: LA	Parish: Jefferson Davis	Section: 39	Township: 10S	Range: 3W	Date: 4/24/25	Location: H-04
Project/Site: Castex 1009. A75			Investigator(s): Matt G.			
Latitude: 30.18260020	Longitude: -92.62139229		Datum: NAD83	Other Info:		

HERBACEOUS SPECIES- [plot size = 5 feet radius]	ROOT ZONE INTERPRETATION		
	Depth BLS (Inches)	Root Mass Abundance	Remarks
Perennial Ryegrass	0-2"	Abundant	Effective Root Zone
Rough Bent Grass	2-4"	Many	
Greenleaf Flat Sedge	4-6"	Common	
Brazillian Verbena	6-12"	Sparse	
Broom Sedge	12-17"	Very Sparse	
	17-24"	none	

SOIL PROFILE PROPERTIES

Soil Type: Vidrine

Depth BLS (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist	%	Type	Loc	Texture	Horizon	Remarks	N-Value
0-6"	10YR3/3						Si l	Ap		<.70
6-8"	10YR6/3						Si l	E		↓
8-17"	10YR5/2	60	2.5YR4/6	40			Si c	Bt1		
17-24"	10YR5/4						Si c	Bt2		

Additional Colors:

Restrictive Layer(if observed): Type: Plow Pan Depth (inches): 7"

Remarks:
Trench 24" x 20" x 24"

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants
Lafayette, Louisiana

Root Zone Data Form

State: LA	Parish: J. Davis	Section: 39	Township: 10S	Range: 3W	Date: 4/25/25	Location: R-01
Project/Site: Castex 1009. A75			Investigator(s): Matt G.			
Latitude: 30.183276159	Longitude: -92.672378393		Datum: NAD83	Other Info:		

HERBACEOUS SPECIES- [plot size = 5 feet radius]	ROOT ZONE INTERPRETATION		
Rice - Drilled	Depth BLS (Inches)	Root Mass Abundance	Remarks
	0-2"	Abundant	Effective Root Zone
	2-4.5"	Many	
	4.5-6"	Common	
	6-9"	Very Sparse	
	9-16"	None	

SOIL PROFILE PROPERTIES

Soil Type: Crowley

Depth BLS (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist	%	Type	Loc	Texture	Horizon	Remarks	N-Value
0-5"	10YR 5/3	100					SIL	Ap		<.70
5-16"	10YR 5/4 ~~10YR 5/8~~	60 ~~40~~	10YR 5/8	40			SIL	E		<.70

Additional Colors:

Restrictive Layer(if observed): Type: Plow Pan Depth (inches): 7"

Remarks:

Rice height Average 6"
No standing water

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants
Lafayette, Louisiana

Root Zone Data Form

State: LA	Parish: J. Davis	Section: 39	Township: 10S	Range: 3W	Date: 4/25/25	Location: R-02
Project/Site: Castex 1009.A75			Investigator(s): Matt G.			
Latitude: 30.183273	Longitude: -91.624333		Datum: NAD83	Other Info:		

HERBACEOUS SPECIES- [plot size = 5 feet radius]	ROOT ZONE INTERPRETATION		
Rice - Drilled	Depth BLS (Inches)	Root Mass Abundance	Remarks
	0-1"	Abundant	Effective Root Zone
	1-3"	Many	
	3-5"	Common	
	5-9"	Sparse	
	9-16"	None	

SOIL PROFILE PROPERTIES

Soil Type: Crowley

Depth BLS (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist	%	Type	Loc	Texture	Horizon	Remarks	N-Value
0-4"	10YR 5/3	100					SIL	Ap		<.70
4-16"	10YR 5/4	60	10YR 5/8	40			SIL	E		<.70

Additional Colors:

Restrictive Layer(if observed): Type: Plow Pan Depth (inches): 5"

Remarks:
No Standing water
Rice Height Average 7"

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants
Lafayette, Louisiana

Root Zone Data Form

State: LA	Parish: J. Davis	Section: 39	Township: 10S	Range: 3W	Date: 4/25/25	Location: R-03
Project/Site: Castex 1009.A75			Investigator(s): Matt G.			
Latitude: 30.18468532	Longitude: -92.62463427		Datum: NAD83	Other Info:		

HERBACEOUS SPECIES- [plot size = 5 feet radius]	ROOT ZONE INTERPRETATION		
Rice - Drillez	Depth BLS (Inches)	Root Mass Abundance	Remarks
	0-2"	Abundant	Effective Root Zone
	2-4"	Many	
	4-6"	Common	
	6-10"	SPARSE	
	10-18"	NONE	

SOIL PROFILE PROPERTIES

Soil Type: Crowley

Depth BLS (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist	%	Type	Loc	Texture	Horizon	Remarks	N-Value
0-4"	10YR 5/3	100					SIL	Ap		<.70
4-18"	10YR 5/4	60	10YR 5/8				SIL	E		<.70

Additional Colors:

Restrictive Layer(if observed):	Type: Plow Pan	Depth (inches): 5"	

Remarks:

- Rice Height Average 7"
- No standing water

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants
Lafayette, Louisiana

Root Zone Data Form

State: LA	Parish: J. Davis	Section: 39	Township: 10S	Range: 3W	Date: 4/25/25	Location: R-04
Project/Site: Castex 1009.475			Investigator(s): Matt G.			
Latitude: 30.18686259	Longitude: -92.62324198		Datum: NAD83	Other Info:		

HERBACEOUS SPECIES- [plot size = 5 feet radius]	ROOT ZONE INTERPRETATION		
Rice - Drilled	Depth BLS (Inches)	Root Mass Abundance	Remarks
	0-1.5"	Abundant	Effective Root Zone
	1.5-3"	MANY	
	3-5"	Common	
	5-8"	Sparse	
	8-15	V. sparse to NONE	

SOIL PROFILE PROPERTIES

Soil Type: Crowley

Depth BLS (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist	%	Type	Loc	Texture	Horizon	Remarks	N-Value
0-5"	10YR 5/3	100					SIL	Ap		<70
5-15"	10YR 5/4	60	10YR 5/8	40			SIL	E		<70

Additional Colors:

Restrictive Layer(if observed): Type: Plow Pan Depth (inches): 5.5"

Remarks:

No Standing Water
Rice Height Average 7"

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow & Lewis
Project Name: Castex
Project Location: Mermentau, LA

Project No.: 1009.A75
Date: 4/25/25
Page 1 of 1

0730 - Left HET (MG/TW) in truck #31 w/ honda pioneer to conduct Root Zone Investigation

0830 - Arrived on site / signed in → HET / ICON on site
- Loaded all tools / supplies into Pioneer
- Reviewed area of the site for types of vegetation

0845 - Arrived @ R-01

0920 - Arrived @ R-02

0945 - Arrived @ R-03

1025 - Arrived @ R-04

1130 - Signed out / Left site

* All data is collected on HET Root Zone Data Forms

Matt

AQUIFER TEST FIELD SHEET

SLUG TEST

WELL ID CD-5 [65-70] DATE 4/30/25

TESTED BY NCC

WELL DIAMETER 0.75"

WELL DEPTH 69.92'

SCREEN LENGTH 5'

BOREHOLE DIAMETER

FILTER PACK

SLUG TYPE SS

SLUG LENGTH / DIAMETER 0.5"/3'

WELL STICK UP

Developed/Re-Developed

Last Sample Date

WEATHER CONDITIONS

LAT/LONG

DEPTH OF WATER (BELOW LAND SURFACE) 61.72

HEIGHT OF CASING (ABOVE LAND SURFACE)

DEPTH OF WATER (BELOW TOC)

Initial 10.48 Time 1130

After Transducer 9.75 Time 1135

DEPTH OF TRANSDUCER (BELOW TOC)

TRANSDUCER TYPE 15 PSI

PRE-TEST WATER LEVEL

5 Min after Initial 9.75 Time

5 Min after Initial 9.75 Time

5 Min after Initial 9.75 Time

TIME	TIME SINCE TEST STARTED	WATER LEVEL	BAROMETRIC PRESSURE	SLUG IN / OUT	NAME OF DATA FILE
1135		9.9			
1140		9.88			
1145		9.79			
1150		9.76			
1155		10.74		SLUG IN	
1200		10.54			
1205		9.86			
1210		9.77			
1215		9.76			
1220		9.75			
1225		9.75		SLUG OUT	

AQUIFER TEST FIELD SHEET

PAGE 2 of 3

SLUG TEST

WELL ID CD-5B [65-70] DATE 4/30/25

TIME	TIME SINCE TEST STARTED	WATER LEVEL	BAROMETRIC PRESSURE	SLUG IN / OUT	NAME OF DATA FILE
1225		8.9			
1230		9.60			
1235		9.70			
1240		9.74			
1250		10.54		SLUG IN	
1250		10.13			
1255		9.83			
1300		9.80			
1305		9.75			
1305		8.9		SLUG	OUT
1310		9.45			
1315		9.70			
1320		9.75			
1325		9.75			
1330		9.75			
1330		10.53		SLUG	IN
1335		9.9			
1340		9.83			
1345		9.79			

AQUIFER TEST FIELD SHEET

SLUG TEST

WELL ID CD-5B [65-70'] DATE 4/30/25

TIME	TIME SINCE TEST STARTED	WATER LEVEL	BAROMETRIC PRESSURE	SLUG IN / OUT	NAME OF DATA FILE
1350		9.76			
1355		9.76			
1400		9.76			
1400		8.8'		SLUG OUT	
1405		9.58			
1410		9.75			
1415		9.75			
1420		9.75			

HET - WL's, Slug Test, Surveying

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow & Lewis
Project Name: Castex
Project Location: Mt Jennings, La

Project No.: 1009.A75
Date: 4/30/2025
Page 1 of 2

0730 - EM/DC left HET in # 36 w/ JD Gator 2 seat.

0845 - Arrive on site. ERM, ICON, SE all on site.
- Held safety meeting. ERM working on Conoco AOI today. 1 - (0-2') hand auger is proposed. Ashley conducting oversight.

0900 - EM/DC mob to set up @ CD-05 B (65-70') to slug test
↳ See slug test data sheet for details.

- Southeastern (SE) conducting survey of select ICON must on site, & select areas of interest.
- EM will do a round of water levels. All wells opened before taking DTW measurements.

On site

Eric, Darryl] HET
Ashley - ICON
Anna, Connor] ERM
Bernard] SE ↑ (southeastern)

WELL ID	DTW (BTOC)	WELL ID	DTW (BTOC)
CD-05A	18.42'	CD-18A	20.61'
CD-05B	61.72'	CD-18B	~~28.19'~~ 20.57'
CD-12A	16.65'	CD-18C	25.92'
CD-12B	17.64'	CD-18D	28.19'
CD-04A	17.28'	CD-17A1	18.28'
CD-04B	38.86'	~~CD-17B~~ CD-17A2	18.92'
CD-10A	22.66'	~~CD-17B~~ CD-17B	32.62'
CD-08A	9.88'	CD-6A	18.28'
CD-08B	55.54'	CD-6B	21.76'
CD-13A	17.14'	CD-6C **	(See pg. 2)
CD-13B *	16.29'	~~CD-16A2~~	-
CD-13C	45.73'	~~CD-16B CD-A1~~ EM	-
CD-19A	19.84'	~~CD-16C CD-~~	-
CD-19B	20.19'	CD-16A1	18.74'
CD-19C	34.93'	CD-16A2	18.71'
		CD-16B	27.24'

* CD-13B concrete pad destroyed. 3" protective casing destroyed. 3/4" well intact.
(See next page for notes on CD-13B)

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow & Lewis
Project Name: Castex
Project Location: Jennings, La

Project No.: 1009.A75
Date: 4/30/25
Page 2 of 2

* CD-13B: Protective casing & concrete pad destroyed. 3/4" well has no cap & is broken @ top of casing, however, the water level probe is able to get to TD uninterupted.

- HET & Southeastern cut 3/4" PVC sticking out of ground in order to get accurate surveyed top of casing & corresponding water level. ICON was notified of the damage.

* CD-06C: Not able to collect WL. Gas coming out of well. Water occasionally spurting out of well from gas pushing out.
  ↳ Cap on well stuck to riser. Section ~2.5' long or ~2.8' w/ cap removed & WL & survey taken from that point.

1500 - Slug tests on CD-05B complete.
~~1600~~ - All water levels complete. Data shared w/ Ashley (ICON)
1600 - Surveyors finished up w/ all monitor wells. Will continue tomorrow.
1615 - All personell off site.
1705 - Arrive @ HET

EM

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC. JD
Environmental Consultants

Client: Liskow and Lewis
Project Name: Castex
Project Location: Morse, LA

Project No.: 1005.A75
Date: 5-1-2025
Page 1 of 1

- 0820 - Left the office in truck 36 with trailer and tracker boat.
- 0910 - Arrived on site. HEY: JP and Darryl
  Icon: Ashley B
- 0925 - Moving to ditches Southeast Engineers: Bernard Cameron
- 0930 - Began survey of ditches
  - Surveying off of Castex Landing Rd.
  - Surveying ditch N to NE of CD-8
  - Moving around to West side of ditches to survey that side.
  - Surveying the two spots in the woods
- 1110 - Moving down the road to survey both locations West of pad area
  - Going on other side of ditches near road. (SW side of ditch and road)
  - Moving to bridge
  - Surveying both sides of the bridge.
  - Moving back to the truck area.
  - SE Engineers is picking up equipment, base station, and loading UTV onto trailer.
- 1230 - Leaving the site.
- 1400 - Back at the shop.

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow & Lewis
Project Name: Castex
Project Location: Jennings, La

Project No.: 8046.07
Date: 5/8/2025
Page 1 of 2

0800 - EM in # 33 w/ JD Gator, HL in # 31 w/ G3.

0900 - On site @ muster point. ICON on site. Held safety meeting. Southeastern setting up base.

- Mob to Hwy 90. Mermentau Boat Launch.
- Launched boats & mob down river to area of interest. ICON stayed @ launch.

- Completed survey of River. Collected ~150 points. Surface elevation & depth.

1230 - Load boats. Leave landing.
- Mob to muster point to begin WL's.
See next page

On site
Eric Montesano, Hunter Lepretre — HET
Terry Ortego, Bernard Trappey — SE

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow & Lewis
Project Name: Castex
Project Location: Jennings, La

Project No.: 1009.475
Date: 5/8/25
Page 2 of 2

1230 Completed boat survey work. Mob to CD-05 / CD-04 well pad area / marker point.
1315 Began opening MW's on site. Will open all wells before collecting depth to water (dtw) measurements.
1415 All wells open
1500 Completed DTW measurements. All wells closed.
↳ See below

WELL ID	DTW (BTOC)
CD-4A (27-42')	17.08'
CD-4B (62-67')	39.05'
CD-5A (28-43)	17.87'
CD-5B (65-70')	61.67'
CD-10A (30-40')	21.53'
CD-8A (20-30')	6.69' → water standing ~2-3" above concrete pad
CD-8B (52-62')	55.32'
CD-13A (22-32')	16.10'
CD-13B (32-42')	16.32' — * well recompleted w/ 1.02' of additional stick up.
CD-13C (58.68')	45.64'
CD-16A1 (16-26')	18.58'
CD-16A2 (36-46')	18.44'
~~CD~~ CD-16B (63-68')	27.22'
CD-6A (30-40')	17.96'
CD-6B (56-66')	21.70'
CD-6C (75-80')	water level not taken → * pressure release when opened, venting gas bubbling in well.
CD-17A1 (16-26')	17.92'
CD-17A2 (39-49')	18.63'
CD-17B (62-72')	32.48'
CD-18A (16-26')	20.49'
CD-18B (32-42')	20.46'
CD-18C (52-57')	25.82'
CD-18D (64-74')	28.07'
CD-12A (7-17')	15.84'
CD-12B (29-39')	17.06'

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow & Lewis
Project Name: Castex
Project Location: Mermentau, LA

Project No.: 1007.A75
Date: 5/12/25
Page 1 of 1

0730 - Left NET (Matt/Hunter 4.) in #37 w/ Honda Pioneer to conduct Root Zone Investigation
0830 - Arrived on site
- Lam Lemaire (#43) on site
- Loaded all equipment into pioneer
0905 - Thomas (ICON) on site
0920 - Arrived @ Tree T-01
1115 - Arrived @ Tree T-02

1320 - Patch of trees - Dominants
Overstory: Water Oaks, Sweet Gum, Occasional Tallow
Understory: Water Oaks, Yopon, Sugarberry
Groundcover: Brier, Pepper Vine, Poison Ivy, occasional palmetto & sedge

1335 - Arrive @ Tree T-03

1500 - Completed tree T-03

1530 - Left site

* All Root Zone Investigation data is on NET Data Forms
* Previous herbaceous area (H-1, H-2, & H-4) plowed by Farmer

Matt

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants
Lafayette, Louisiana

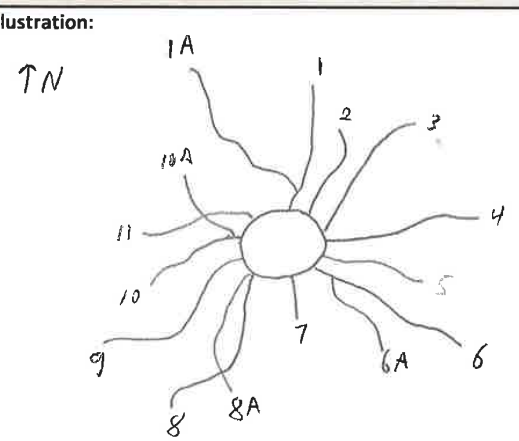
Root Study Data Form

State: LA	Parish: Jefferson Davis	Section: 39	Township: 10S	Range: 3W	Date: 5/12/25	Location: T-01
Project/Site: Castex			Investigator(s): Matt G.		
Latitude: 30.184036	Longitude: -92.622975		Datum: NAD83	Other Info:	

TREE SPECIES: Water Oak — Circumference: 3' 9.5" — DBH: 14.5"

Root Number	Total Length (Inches)	Distance to deepest point (Inches)	Depth BLS (Inches)	Random Distance (RD) (Inches)	Depth BLS (Inches)	Root Number	Total Length (Inches)	DDP (Inches)	Depth BLS (Inches)	RD (Inches)	Depth BLS (Inches)
1	89	67	4.5	89	4	10	50	43	2.5	28	1
1A	102	98	6.75	51	4.5	10A	59	59	3.5	39	1
2	56	41	5.5	31	4.5	11	43	30	3	25	4.5
3	91	79	6	43	3.5						
4	77	58	4.5	41	3.5						
5	48	33	9	23	9						
6	102	92	4	37	4						
6A	50	50	7.5	32	8						
7	36	27	11.5								
8	100	36	3.5	75	Surface						
8A	85	68	4	43	3						
9	91	37	12	59	3						

Illustration:



ROOT ZONE INTERPRETATION

Depth BLS (Inches)	Root Mass Abundance	Remarks
0-2	Abundant	
2-7	Many	
7-12	Common	
12-16	Sparse	
16-28	Very Sparse-None	

Remarks:
- HA 0-28"

SOIL PROFILE PROPERTIES

Soil Type: Crowley

Depth BLS (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type	Loc	Texture	Horizon	Remarks	N-Value
0-6	10YR 4/3	100					Sil	A		.75
6-16	10YR 5/3	80	10YR 6/8	20			Sil	E		.73
16-28	10YR 4/2	60	Red 10YR 5/8	40			SiC	Bt	Increase Clay Content	<.70

Additional Colors:

Restrictive Layer(if observed): Type: Depth (inches):

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants
Lafayette, Louisiana

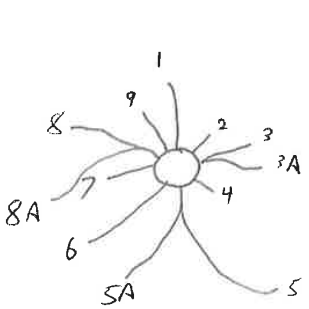
Root Study Data Form

State: LA	Parish: Jefferson Davis	Section: 39	Township: 10S	Range: 3W	Date: 5/12	Location: T-02
Project/Site: Castex			Investigator(s): Matt G.			
Latitude: 30.185094	Longitude: -92.622439		Datum: NAD83	Other Info:		

TREE SPECIES: Water Oak — Circumference: 1' 8.5" — DBH: 6.5"

Root Number	Total Length (Inches)	Distance to deepest point (Inches)	Depth BLS (Inches)	Random Distance (RD) (Inches)	Depth BLS (Inches)	Root Number	Total Length (Inches)	DDP (Inches)	Depth BLS (Inches)	RD (Inches)	Depth BLS (Inches)
1	31	23	4								
2	14	14	7								
3	16	16	5								
3A	22	22	10								
4	9	9	5								
5	59	20	2	59	1						
5A	61	61	1	37	1						
6	51	23	7	51	1						
7	27	17	3.5								
8	45	40	3	16	3						
8A	34	24	3.5								
9	25	25	2.5								

Illustration:



ROOT ZONE INTERPRETATION

Depth BLS (Inches)	Root Mass Abundance	Remarks
0-2	Abundant	
2-6	Many	
6-10	Common	
10-24	Sparse	
24-30	Very Sparse-none	One root @ 24"

Remarks:
• NA from 0-30"

SOIL PROFILE PROPERTIES

Soil Type: Crowley

Depth BLS (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Redox Type	Redox Loc	Texture	Horizon	Remarks	N-Value
0-5	10YR 4/3	100					S.L	A		.75
5-16	10YR 5/3	80	10YR 6/2	20			S.L	E		.75
16-30	10YR 4/2	60	Red	40			S.C	Bt	Increase clay content	<.70
			10YR 5/8							

Additional Colors:

Restrictive Layer(if observed): Type: Depth (inches):

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants
Lafayette, Louisiana

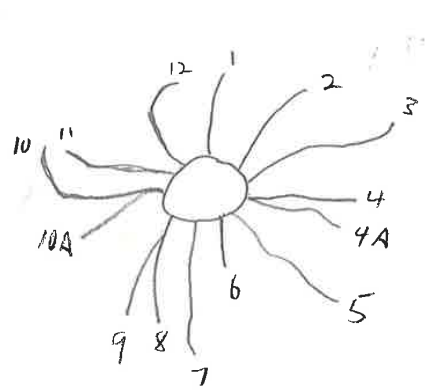
Root Study Data Form

State: LA	Parish: Jefferson Davis	Section: 17	Township: 10S	Range: 2W	Date: 5/12	Location: T-03
Project/Site: Castex			Investigator(s): Matt G			
Latitude: 30.179509	Longitude: -92.617058		Datum: NAD83	Other Info:		

TREE SPECIES: Willow Oak — Circumference: 3' — DBH: 11.5"

Root Number	Total Length (Inches)	Distance to deepest point (Inches)	Depth BLS (Inches)	Random Distance (RD) (Inches)	Depth BLS (Inches)	Root Number	Total Length (Inches)	DDP (Inches)	Depth BLS (Inches)	RD (Inches)	Depth BLS (Inches)
1	43	43	11	26	11	11	48	43	17.5	47	8
2	50	50	10.5	38	8.5	12	36	32	14	21	5.5
3	65	44	8	27	1						
4	48	14	1	14	1						
4A	44	44	4.5	25	1						
5	55	39	16	24	14						
6	31	31	1	23	1						
7	61	33	1.5	61	1						
8	52	45	16	18	4.5						
9	55	50	10	21	1						
10	44	30	8	16	1						
10A	38	32	14	12	4.5						

Illustration:



ROOT ZONE INTERPRETATION

Depth BLS (Inches)	Root Mass Abundance	Remarks
0-1	Abundant	
1-7	Many	
7-13	Common	
13-25	Sparse	
25-32	V. Sparse - None	

Remarks:
- Small root layer @ 24"
- NA from 0-32"

SOIL PROFILE PROPERTIES

Soil Type: Acadia

Depth BLS (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type	Loc	Texture	Horizon	Remarks	N-Value
0-7	10YR 6/6						Sil	A		.75
7-14	10YR 6/4	60	7.5YR 5/8	40			Sic	Bt1	↑ clay	.73
14-32	10YR 6/2	60	10YR 5/6	40			Sic	Bt2	↑ clay	<.70

Additional Colors:

Restrictive Layer(if observed): Type: Depth (inches):

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants
Lafayette, Louisiana

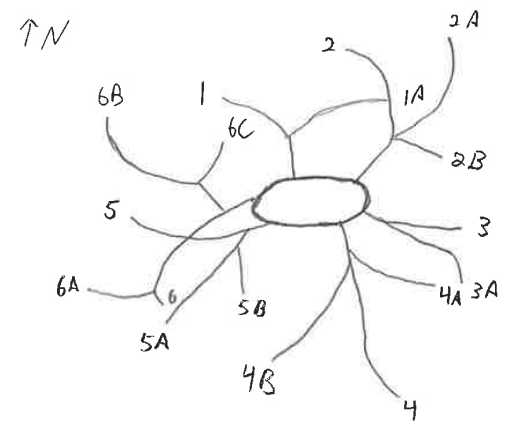
Root Study Data Form

State: LA	Parish: Jefferson Davis	Section: 17	Township: 10S	Range: 2W	Date: 5/13	Location: T-04
Project/Site: Castex			Investigator(s): Matt G.			
Latitude: 30.179595	Longitude: -92.617385		Datum: NAD83	Other Info:		

TREE SPECIES: Swamp Chestnut Oak — Circumference: 41.5" — DBH: 13.2"

Root Number	Total Length (Inches)	Distance to deepest point (Inches)	Depth BLS (Inches)	Random Distance (RD) (Inches)	Depth BLS (Inches)	Root Number	Total Length (Inches)	DDP (Inches)	Depth BLS (Inches)	RD (Inches)	Depth BLS (Inches)
1	53	41	1.5	19	Surface	5B	35	16	1	32	1
1A	66	66	Surface	32	Surface	6	80	80	12	70	Surface
2	71	60	7	44	Surface	6A	116	116	1	90	Surface
2A	80	58	11	32	1	6B	96	54	6.5	90	1
2B	36	27	5.5	20	Surface	6C	56	56	1	50	Surface
3	51	36	2	26	Surface						
3A	80	75	2.5	42	1						
4	100	90	1	44	Surface						
4A	52	35	7	55	1						
4B	96	72	1	48	1						
5	80	73	1	56	Surface						
5A	64	48	3.5	36	Surface						

Illustration:



ROOT ZONE INTERPRETATION

Depth BLS (Inches)	Root Mass Abundance	Remarks
0-2	Abundant	
2-5	Many	
5-14	Common	
14-24	Sparse	
24-28	V. Sparse ~~Abu~~	

Remarks:
- HA from 0-28"

SOIL PROFILE PROPERTIES

Soil Type: Acadia

Depth BLS (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type	Loc	Texture	Horizon	Remarks	N-Value
0-4	10YR 5/3	100					S.L	A		.75
4-16	10YR 6/2	60	10YR 6/6	40			S.L	E		.73
16-28	10YR 6/1	60	10YR 6/8	40			S.C	Bt	↑ clay	2.70

Additional Colors:

Restrictive Layer(if observed): Type: Depth (inches):

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants
Lafayette, Louisiana

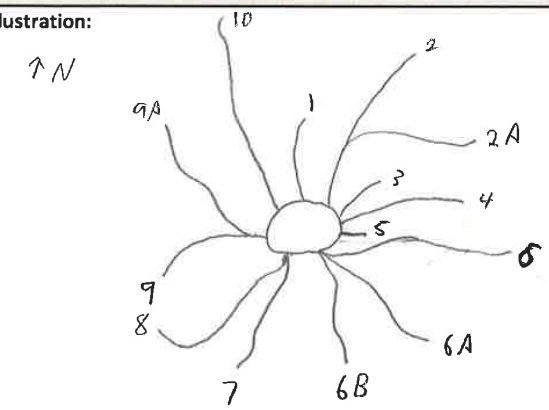
Root Study Data Form

State: LA	Parish: Jefferson Davis	Section: 17	Township: 10S	Range: 2W	Date: 5/13	Location: T-05
Project/Site: Castex			Investigator(s): Matt G.			
Latitude: 30.183322	Longitude: -92.616044		Datum: NAD83	Other Info:		

TREE SPECIES: American Elm | Circumference: 38.5" | DBH: 12.3"

Root Number	Total Length (Inches)	Distance to deepest point (Inches)	Depth BLS (Inches)	Random Distance (RD) (Inches)	Depth BLS (Inches)	Root Number	Total Length (Inches)	DDP (Inches)	Depth BLS (Inches)	RD (Inches)	Depth BLS (Inches)
1	56	45	1.5	32	1	9A	96	66	6.5	36	2
2	108	78	1	50	1	10	142	52	1.5	96	1
2A	84	85	.5	48	.5						
3	34	30	1	20	.5						
4	40	36	3	20	1						
5	12	6	5.5								
6	87	87	.5	46	Surface						
6A	62	62	6.5	42	1						
6B	90	90	1	40	.5						
7	62	55	2.5	37	1						
8	88	44	2	68	1						
9	64	52	2.5	32	4						

Illustration:



ROOT ZONE INTERPRETATION

Depth BLS (Inches)	Root Mass Abundance	Remarks
0-2	Abundant	
2-4	Many	
4-9	Common	
9-13	Sparse	
13-17	Very sparse-none	

Remarks:
- Spoon from 0-17"

SOIL PROFILE PROPERTIES

Soil Type: Mowata

Depth BLS (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Redox Type	Redox Loc	Texture	Horizon	Remarks	N-Value
0-2.5	10YR 3/2	100					Muck	A1		.85
2.5-7	10YR 4/3	100					Sil	A2		.75
7-12	10YR 5/2	100					Sil	B1		.73
12-17	10YR 5/2	90	10YR 5/8	10			SiC	B2+		<.70

Additional Colors:

Restrictive Layer(if observed):	Type:	Depth (inches):	

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants
Lafayette, Louisiana

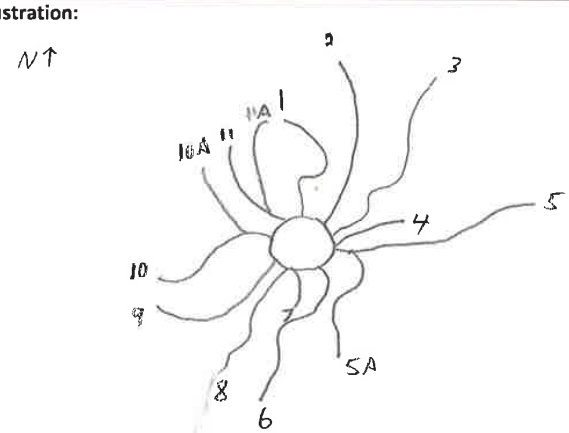
Root Study Data Form

State: LA	Parish: Jefferson Davis	Section: 17	Township: 10S	Range: 2W	Date: 5/14	Location: T-06
Project/Site: Castex			Investigator(s): Matt G.			
Latitude: 30.182084	Longitude: -92.613980		Datum: NAD83	Other Info:		

TREE SPECIES: Sweet Gum | Circumference: 34" | DBH: 10.8"

Root Number	Total Length (Inches)	Distance to deepest point (Inches)	Depth BLS (Inches)	Random Distance (RD) (Inches)	Depth BLS (Inches)	Root Number	Total Length (Inches)	DDP (Inches)	Depth BLS (Inches)	RD (Inches)	Depth BLS (Inches)
1	53	20	5	45	5	11	53	53	3	47	3
2	80	30	6	55	2.5	11A	58	35	6	58	5
3	80	30	5	55	Surface						
4	36	36	2.5								
5	80	38	3	62	1						
5A	78	46	7.5	78	1						
6	90	80	1	65	1						
7	30	30	4								
8	56	52	2	27	1						
9	72	38	4	22	1.5						
10	52	48	1	33	1						
10A	68	30	2	45	1						

Illustration:



ROOT ZONE INTERPRETATION

Depth BLS (Inches)	Root Mass Abundance	Remarks
0-2	Abundant	
2-4	Many	
4-8	Common	
8-12	Sparse	
12-24	Very sparse-None	

Remarks:
• HA from 0-24"

SOIL PROFILE PROPERTIES

Soil Type: Mowata

Depth BLS (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Redox Type	Redox Loc	Texture	Horizon	Remarks	N-Value
0-1	10YR 3/2	100					mucK	A1		.85
1-5	10YR 5/2	100					SiL	A2		.73
5-24	10YR 5/3	90	10YR 5/8	10			SiC	Bt		.70

Additional Colors:

Restrictive Layer(if observed): | Type: | Depth (inches):

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants
Lafayette, Louisiana

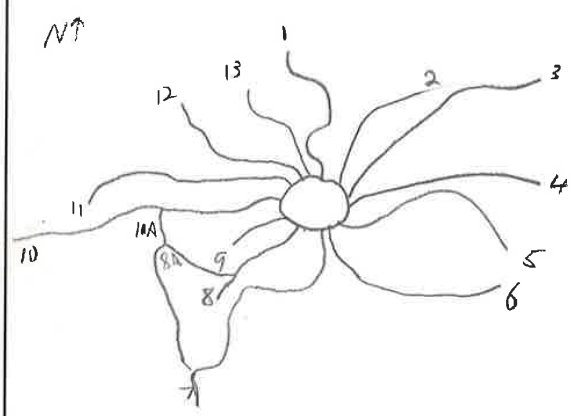
Root Study Data Form

State: LA	Parish: Jefferson Davis	Section: 17	Township: 10S	Range: 2E	Date: 5/14	Location: T-07
Project/Site: Castex			Investigator(s): Matt G.		
Latitude: 30.182150	Longitude: -92.614040		Datum: NAD83	Other Info:	

TREE SPECIES: Water Oak — Circumference: 27.5" — DBH: 8.8"

Root Number	Total Length (Inches)	Distance to deepest point (Inches)	Depth BLS (Inches)	Random Distance (RD) (Inches)	Depth BLS (Inches)	Root Number	Total Length (Inches)	DDP (Inches)	Depth BLS (Inches)	RD (Inches)	Depth BLS (Inches)
1	77	55	1	30	Surface	11	128	46	2.5	100	.5
2	58	50	1	27	Surface	12	80	80	.5	50	Surface
3	84	80	.5	40	Surface	13	50	37	1.5	50	.5
4	80	72	1	48	Surface						
5	100	64	2	35	.5						
6	84	53	3	32	1						
7	90	42	4	72	.5						
8	75	50	4.5	64	.5						
8A	95	85	.5								
9	36	36	.5								
10	200	140	.5	93	.5						
10A	128	90	1	125	.5						

Illustration:



ROOT ZONE INTERPRETATION

Depth BLS (Inches)	Root Mass Abundance	Remarks
0 - 1.5	Abundant	
1.5 - 3	Many	
3 - 12	Common	
12 - 16	Sparse	
16 - 21	Very Sparse - None	

Remarks:
• HA from 0-21"

SOIL PROFILE PROPERTIES

Soil Type: Mowata

Depth BLS (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Redox Type	Redox Loc	Texture	Horizon	Remarks	N-Value
0-1	10YR 3/2	100					Muck	A1		.85
1-5	10YR 5/2	100					Si L	A2		.77
5-21	10YR 5/3	90	10YR 5/8	10			Si L	Bt		2.70

Additional Colors:

Restrictive Layer(if observed): Type: Depth (inches):

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants
Lafayette, Louisiana

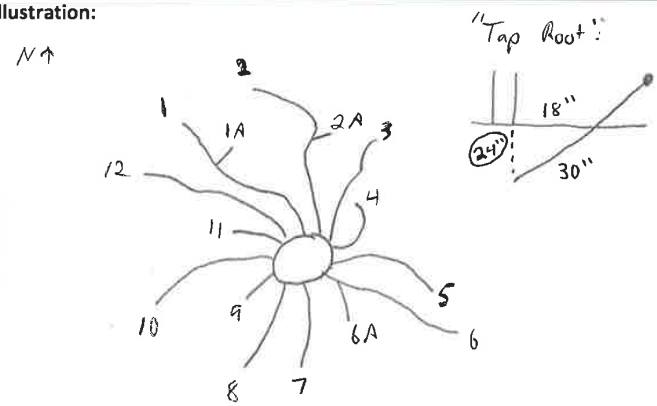
Root Study Data Form

State: LA	Parish: Jefferson Davis	Section: 39	Township: 10S	Range: 3W	Date: 5/15	Location: T-08
Project/Site: Castex			Investigator(s): Matt G.			
Latitude: 30.178177	Longitude: -92.620380		Datum: NAD83	Other Info:		

TREE SPECIES: Pine (Loblolly) Circumference: 33" DBH: 10.5"

Root Number	Total Length (Inches)	Distance to deepest point (Inches)	Depth BLS (Inches)	Random Distance (RD) (Inches)	Depth BLS (Inches)	Root Number	Total Length (Inches)	DDP (Inches)	Depth BLS (Inches)	RD (Inches)	Depth BLS (Inches)
2	88	36	5	68	4	12	70	60	1	50	1
2A	53	53	4			1	70	58	1	48	1
3	53	16	11	40	4	1A	48	77	1	23	1
4	38	24	2	12	1						
5	58	22	1.5	44	1.5						
6	82	45	5.5 ↔	22	7						
6A	24	18	12								
7	44	24	8 ↔	41	9						
8	48	20	2	40	2						
8	27	27	10								
10	65	24	8.5	52	5						
11	20	20	9								

Illustration:



ROOT ZONE INTERPRETATION

Depth BLS (Inches)	Root Mass Abundance	Remarks
0-2	Abundant	
2-5	Many	
5-13	Common	
13-18	Very sparse - none	

Remarks:
- 18" x 18" x 18" Trench
- $a^2+b^2=c^2$
- $TR = \sqrt{30^2-18^2}$
- TR = 24"

SOIL PROFILE PROPERTIES

Soil Type: Crowley

Depth BLS (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type	Loc	Texture	Horizon	Remarks	N-Value
0-4	10YR 4/3	100					Sil	A		<.70
4-18	10YR 6/2	80	10YR 5/8	20			Sic	B+		<.70

Additional Colors:

Restrictive Layer(if observed): Type: Depth (inches):

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants
Lafayette, Louisiana

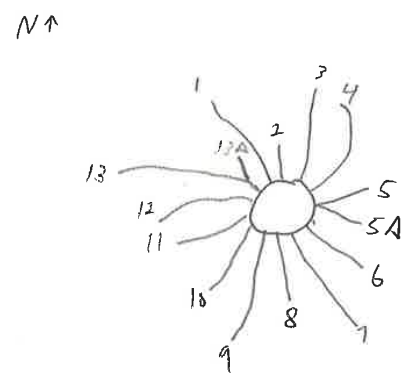
Root Study Data Form

State: LA	Parish: Jefferson Davis	Section: 39	Township: 10S	Range: 3W	Date: 5/15	Location: T-09
Project/Site: Castex			Investigator(s): Matt G.		
Latitude: 30.181865	Longitude: -92.622526		Datum: NAD83	Other Info:	

TREE SPECIES: Water Oak Circumference: 23" DBH: 7.3"

Root Number	Total Length (Inches)	Distance to deepest point (Inches)	Depth BLS (Inches)	Random Distance (RD) (Inches)	Depth BLS (Inches)	Root Number	Total Length (Inches)	DDP (Inches)	Depth BLS (Inches)	RD (Inches)	Depth BLS (Inches)
1	45	25	5	45	3	12	59	12	6	36	5.5
2	24	12	6	24	1	13	70	28	3.5	56	7
3	48	40	2.5	21	1	13A	18	18	3.5		
4	48	20	4	30	3						
5	24	12	Surface	20	Surface						
5A	27	24	4	27	3						
6	30	30	4	16	2						
7	36	24	4.5	12	4						
8	28	19	11	12	1.35						
9	40	14	8	32	7						
10	32	15	5.5	26	3						
11	41	14	2.5	32	1						

Illustration:



ROOT ZONE INTERPRETATION

Depth BLS (Inches)	Root Mass Abundance	Remarks
0-2	Abundant	
2-7	Many	
7-13	Common	
13-16	Sparse	
16-20	V. Sparse None	

Remarks:
• 18" x 18" x 20" Trench

SOIL PROFILE PROPERTIES

Soil Type: Crowley

Depth BLS (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Redox Type	Redox Loc	Texture	Horizon	Remarks	N-Value
0-6	10YR 4/3	100					S.L	A		<.7
6-13	10YR 5/3	100					S.L	E		<.7
13-20	10YR 3/1	100					S.C	Bt	Small Shell	<.7

Additional Colors:

Restrictive Layer(if observed): Type: Depth (inches):

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow & Lewis
Project Name: Castex
Project Location: Mermentau, LA

Project No.: 1009.A75
Date: 5/13/25
Page 1 of 1

0745 - Left NET (Matt / Nunta L.) in #27 to conduct Root Zone Investigation
0835 - Arrived on site
- Thomas (IOW) on site
0920 - Arrived @ Tree T-04
1115 - Arrived @ Tree T-05
1330 - Completed Tree T-05
- Patch of trees - Dominants
- Overstory: Willow Oak, Water Oak, Swamp chestnut Oak, American Elms, Sweet Gum, Occasional Hackberry & Tallow
- Understory: Elm, Ash, Tallow, Yaupon,
- Groundcover: Blackberry, Green Brier, Poison Ivy, Palmetto, Sedge
- Marked 2 trees & reviewed property for vegetative types
1515 - Completed activities / left site

* All Root Investigation Data on NET data forms

Matt

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow & Lewis
Project Name: Castex
Project Location: Mermentau, LA

Project No.: 1009.A75
Date: 5/14/25
Page 1 of 1

0750 - Left HET (Matt, Hunter L., Andy S.) in truck #27 to conduct a Root Zone Investigation
0840 - Arrived on site / signed in
- ICON (Thomas) on site
0910 - Arrived at Tree T-06
1040 - Arrived at Shrub S-01
1230 - Arrived at Tree T-07
1415 - Arrived at Tree T-08 — Mainly Pine
- Weed eated around tree to study on 5/15
1500 - Marked out Tree T-09
- Will study on 5/15
1515 - Left Site / Signed

Overstory: Water Oak, Sweet Gum, Elm, Occasional Cypress
Understory: Elm, Youpon
Groundcover: Palmetto, Poison Ivy, Briar

Overstory: Water Oak, Gum, [redacted], Sugarberry, Tallow (on edge)
Understory: Youpon, Water Oak, Tallow
Ground: Palmetto, Poison Ivy, Briar

* All Root Study data on HET Root Zone Data Forms

Matt

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants
Lafayette, Louisiana

Root Zone Data Form

State: LA	Parish: Jefferson Davis	Section: 17	Township: 10S	Range: 2W	Date: 5/14	Location: S-01
Project/Site: Castex			Investigator(s): Matt G			
Latitude: 30.182032	Longitude: -92.613875		Datum: NAD83	Other Info:		

HERBACEOUS SPECIES- [plot size = 5 feet radius]	ROOT ZONE INTERPRETATION		
Dwarf Palmetto	Depth BLS (Inches)	Root Mass Abundance	Remarks
	0-2	Abundant	Effective Root Zone
	2-8	Many	
	8-12	Common	
	12-16	Sparse	
	16-21	Very Sparse-none	

SOIL PROFILE PROPERTIES

Soil Type: Mowata

Depth BLS (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist	Redox %	Redox Type	Redox Loc	Texture	Horizon	Remarks	N-Value
0-1	10YR 3/2	100					muk	A1		.85
1-5	10YR 5/2	100					Sil	A2		.73
5-21	10YR 5/3	90	10YR 5/8	10			S.C	Bt		<.70

Additional Colors:

Restrictive Layer(if observed):	Type:	Depth (inches):	

Remarks:
Trench: 22' x 18' x 21"
1" water accumulated in trench

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow & Lewis
Project Name: Castex
Project Location: Mermentau, LA

Project No.: 1009.A75
Date: 5/15/25
Page 1 of 1

0800 - Left HET (Matt, Hunter L., Andy) in truck #27 to conduct Root Zone ~~Sampling~~ Investigation
0850 - Arrived on site / signed in
- ICON (Thomas) on site
- Loaded all equipment into Honda pioneer
0905 - Arrived at Tree T-08 (Found / cleared yesterday)

1050 - Arrived at Tree T-09 (Found yesterday)

1230 - Completed all activities
- Signed out / left site

* All ~~site~~ Root Zone data collected on HET Data Forms

Ves
- Tree T-08 Area
  - Overstory: Pines
  - Ground: Grass/weeds → same as former fallow fields

- Tree T-09 Area
  - Overstory: Water Oak, Sweet Gum, Occasional Hackberry & Tallow (edges)
  - Understory: Water Oak, Yaupon, Tallow
  - Groundcover: Briar, Poison Ivy, Occasional palmetto

Matt

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow & Lewis
Project Name: Castex
Project Location: Mermentau, LA

Project No.: 1009.A75
Date: 5/29/25
Page 1 of 1

0700 - Left HET (Matt G. / Brent P.) in #34 to conduct a site visit

0740 - Arrived on site / Signed in
- Reviewed ICON's NA-4, NA-9, CD-2, NA-5, & CD-03 locations
- Area contained dense grass / weed vegetation w/ trees
- Area was low & holding water during the visit

- Reviewed ICON's CD-1 location
- Area contained dense grass / weed vegetation on levee w/ the field area recently plowed (evidence of vegetation)

- Reviewed the former's irrigation pump area & double levee

0825 - ERM on site
- Reviewed ICON's NA-1, CD-4, & NA-3 locations
- Area was recently plowed w/ evidence of healthy grass revegetation ~~[illegible]~~ (+/- 2-5" tall) reproduction

- Showed ERM the irrigation pump & ICON's NA-4, NA-9, CD-2, NA-5, & CD-03 areas

0915 - Left Site / Signed out

On-Site
Matt G. } HET
Brent P.

ERM
Karen
Anna
Conrad

Matt

- DISPOSE OF IDW / KENT
- SITE INSPECTION / DRONE.

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: USKOW & LEWIS

Project No.: 1009.A75

Project Name: CASTEX

Date: 7-22-25

Project Location: NEPHI, UT

Page 1 of 1

- ARRIVE ON-SITE AROUND 830A. PARKT ELLIOTT (TRUCK NO. 36)
- MEETING W/ ICON ON-SITE TO OBSERVE FIELD WORK.
- KENT ON-SITE TO PICKUP 15 DRUMS OF SOIL CUTTING (IDW) GENERATED DURING MEI'S DESCENT INVESTIGATION.
- ASSISTED KENT IN LOADING DRUMS FOR DISPOSAL AT REPUBLIC / JEFF-DAVIS LANDFILL IN WELLS, UT
- TOOK DRONE PHOTOS OF PROPERTY.
- LEFT SITE @ 930.

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants
91 Apollo Road
Scott, Louisiana 70583
(337) 261-1963 Fax (337) 261-1953

BORING No. CD-6

PROJECT NAME: Castex Development, LLC
PROJECT NUMBER: 1009.A75
LOCATION: Mermentau, LA
DRILLING METHOD: Geoprobe 7822 DT
SAMPLING METHOD: 2.25" x 4' Dual Tube
GROUND ELEVATION:
TOP OF CASING:
LOGGED BY: RJL
REMARKS: Field Coordinates: 30.18274, -92.61505 ±12'

DATE STARTED: 4-12-22
DATE COMPLETED: 4-13-22
CASING TYPE/DIAMETER: 3/4" PVC
SCREEN TYPE/SLOT: 0.01" Slotted Screen (PVC 3/4") w/ Filter Sock
SAND PACK TYPE: 20/40
GROUT TYPE/QUANTITY: Portland Bentonite Slurry
DEPTH TO WATER:
GROUNDWATER ELEVATION:

REC.

PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE ID	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	E.C.
2.6'		1410	0-4'		2, 4			0-0.5 - Clayey Silt, brown, low moisture, low density, crumbly	0.63
								0.5 - 2.6' - Clay, mod to minor silt decreasing w/ depth, brown (0.5 - 1.4) to reddish/light brown (1.4-2.6'), low moisture, mod density	1.31
4.0'		1415			6			0-4.0' - Clay, minor silt, yellow brown (0-2.2') and light brown (2.2-4.0') w/ Fe and Mn staining throughout, low moisture, mod density	1.65
		1420	6-8'		8			Ca nodules/secretions (3.2-3.3') & (3.7-4.0')	2.12
4.0'		1425			10			0-4.0' - Clay, reddish brown (0-1.5') and gray/reddish brown mottled (1.5-4.0'), low moisture, mod to high density	1.65
		1430	10-12		12			Ca secretions/nodules (0.9-1.6') & (2.5-2.7')	2.43
4.0'		1435			14			0-4.0' - Clay, gray w/ reddish brown mottling, low moisture, mod to high density, Ca nodules/secretions throughout	1.85
		1440							2.36
3.2' 2' Push					16			0-0.2 SAA 0.2-1.2 Silt, light brown, saturated, low density 1.2'-1.9' - Clay, SAA, 1.9-3.1' - Silt - as above - clay lenses @ (2.4-2.6) & (2.7-2.9')	1.13 1.01
		1450			18				
3.0' 2.0' Push		1455			20			0-1.3' - Clay, red brown and gray, low moisture, high density silt lens @ (0.4-0.6') → gray, mod moisture, to sat. low density	2.33
								1.3-3.0' - Alt. silt & clay lenses Both as above.	1.58
3.7' 2.0' Push		1500			22			0-2.9' - Clay, gray w/ minor red/brown mottling, low moisture, high density silt lenses @ (2.3-2.5') Ca nodules @ 0.7, (1.5-1.7) & (2.3-2.5)	2.31
								2.9-3.7' - Silt, minor to mod. clay, gray to light brown, damp, low density Ca Nodules @ top	2.99
2.8' 2.0' Push		1505			24			0-2.8' - Silt, minor VFG Sand & clay, grayish brown, low density, high moisture to saturated, green clay @ (0.5 & 1.9')	0.86 0.84
3.8' 2.0' Push		1510			26			0-3.8' - Silt, light brown to gray, minor VFG Sand, minor clay, high moisture to saturated, low density, green clay + Ca Nodules @ (3.4-3.6')	1.18 0.94
3.2' 2.0' Push		1515			28			0-3.3 - Silt - as above Ca nodules/shells throughout. 3.3-3.2' - Silty Clay, brown and greenish gray low density, low moisture 3.2'-3.2' - Clay, brown (3.2-3.5) + greenish gray (3.5-3.2') low moisture, mod to high density Ca nodules (3.3.2)	0.91 2.25

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants
91 Apollo Road
Scott, Louisiana 70583
(337) 261-1963 Fax (337) 261-1953

BORING No. CD-6 continued

PROJECT NAME: Castex Development, LLC
PROJECT NUMBER: 1004.473
LOCATION: Mermentau, LA
DRILLING METHOD: Geoprobe 7822 DT
SAMPLING METHOD: 2.25" x 4' Dual Tube
GROUND ELEVATION: –
TOP OF CASING: –
LOGGED BY: RSL
REMARKS:

DATE STARTED: 4-12-22
DATE COMPLETED: 4-13-22
CASING TYPE/DIAMETER:
SCREEN TYPE/SLOT:
SAND PACK TYPE:
GROUT TYPE/QUANTITY:
DEPTH TO WATER:
GROUNDWATER ELEVATION:

REC.

PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE ID	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	F.C.
					28				
3.2'	20' Pack	1520	28-38'					0- 0.4'- Clay, greenish gray, low moisture, high density	1.05
								0.4- 3.2'- Silt, minor to mod. vfg sand increasing w/ depth, minor clay, grayish brown, saturated, low density	0.88
					38				
28'	20' Pack	1525						0- 2.9- SAA - VFG sand increasing w/ depth	0.83
								2.9- 3.3'- Clay, mod to high silt, brown & gray, low density mod. moisture	1.07
					38			3.3- 3.8'- Silt gray, mod moisture, low density	
					12				
					14				
					16			SEE NEXT Page	
					18				
					20				
					22				
					24				
					26				
					28				
					30				
					32				
					34				
					36				
					38				

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BORING No. CD-6

PROJECT NAME: Castex Development, LLC
PROJECT NUMBER: 1009.475
LOCATION: Mermentau, LA
DRILLING METHOD: Geoprobe 7822DT
SAMPLING METHOD: 2.25" x 4' Dual Tube
GROUND ELEVATION: –
TOP OF CASING: –
LOGGED BY: RJL
REMARKS: Field Coordinates:

DATE STARTED: 4-12-22
DATE COMPLETED: 4-13-22
CASING TYPE/DIAMETER:
SCREEN TYPE/SLOT:
SAND PACK TYPE:
GROUT TYPE/QUANTITY:
DEPTH TO WATER:
GROUNDWATER ELEVATION:

2.0' pushes
16'-

PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE ID	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	E.C.
native					28				
					30			SEE Previous Page	
					32			0-0.4'- Clay, minor silt, light brown/gray, mod. moisture, low density	
2.6' 2.0' push	0	800						0.4-2.6'- Silt, mod. VFG Sand, brown, saturated, low density	0.62
									0.61
					34			0-3.9'- Silt, mod ~~[illegible]~~ VFG to FG (3-3.9') Sand mixed, grayish brown, saturated, low density	
3.9' 2.0' push	0	805							0.59
									0.36
					36			0-3.6'- Silt, mod ~~[illegible]~~ VFG sand, brown, saturated, low density	
3.6'	0	810							0.45
					38			0-3.9'- Same as above.	
3.9'	0	815							0.49
									0.37
					40			0-3.8'- Same as above	
3.8'	0	830							0.51
					42			0-3.8'- Same as above - High VFG sand (3.0-3.8')	
3.8'	0	835							0.52
									0.36
					44			0-2.2'- Silt, mod VFG, brown, saturated low density,	
3.7'	0	840						2.2-3.7'- Clay, mod silt (2.2-2.6') gray, low moisture, low density (2.2-2.6') + mod to high density (2.6-3.7')	0.45
									1.31
					46			0-0.9'- Fill, 1.5 to 2" clay/silt, gray, mod moisture, low density	
4.0'	0	845						0.9-4.0'- Silt, mod clay, gray, high moisture, low density	0.52
					48				0.52

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(337) 261-1963 Fax (337) 261-1953

BORING No. CD-6

PROJECT NAME: Castex Development, LLC
PROJECT NUMBER: 1009.475
LOCATION: Mermentau, LA
DRILLING METHOD: Geoprobe 7822 DT
SAMPLING METHOD: 2.25" x 4' Dual Tube
GROUND ELEVATION:
TOP OF CASING:
LOGGED BY: BJL
REMARKS:

DATE STARTED: 4-12-22
DATE COMPLETED: 4-13-22
CASING TYPE/DIAMETER:
SCREEN TYPE/SLOT:
SAND PACK TYPE:
GROUT TYPE/QUANTITY:
DEPTH TO WATER:
GROUNDWATER ELEVATION:

20' pushes to T.D.

PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE ID	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	E.C.
					48			0-0.5'-Silt, high clay, brown, mod moisture low density	
3.7' 0		850						0.5-1.6'-Clay, mod silt, brown/gray, low moisture/saturation, low density	0.96
								1.6-3.2-Silt, mod clay, brown, low moisture, low density	
					50			3.2-3.4'-Clay, brown, low moisture, mod. density	0.95
3.8' 0		855						0-3.8'-Clay, minor silt, brownish gray, low moisture, low density	1.01
								lens (2.7-2.9'), (3.2-3.3'), (3.5-3.6') clayey silt	0.79
					52			0-2.2'-clay-as above	
3.4' 0		955	52-54'					2.2-3.4'-Clay, high silt, gray, low-to mod. moisture, low density	0.85
									0.59
					54			0-2.9'-Clay, mod silt, gray, low moisture, low to mod. density	
2.9' 0		1000							0.76
									0.89
					56			0-3.7'-Silt, minor clay decreasing w/ depth, minor VFG sand (3-3.7')	0.47
3.7'		1005						saturated, low density, gray	0.51
					58			0-3.8'-Silt, minor VFG Sand, gray, saturated, low density	
3.8' (56-66')		1020						minor to mod clay	0.55
					60			0-3.8'-Silt, minor to mod clay, gray, ~~moist~~ high moisture,	
3.8'		1025						low density	0.54
					62			0-3.5'-Silt-SAA-saturated	
4.0'		1030						3.3-4.0'-Silt, gray, mod clay, low moisture, low density	0.53
					64			0-2.0'-Silt, gray, saturated, low density	
4.0'		1045						2.0-4.0'-Silt, high clay, gray w/ reddish brown mottling, low to mod. moisture, low density	0.72
					66			0-1.8'-Silt, mod clay, gray + light brown, high moisture, low density	
4.0'		1050						1.8-4.0'-Clay, mod to minor silt decreasing w/ depth, low moisture, low density	0.64
					68				

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants
91 Apollo Road
Scott, Louisiana 70583
(337) 261-1963 Fax (337) 261-1953

BORING No. CD-6

PROJECT NAME: Castex Development, LLC
PROJECT NUMBER: 009.A75
LOCATION: Mermentau, LA
DRILLING METHOD: Geoprobe 7822 DT
SAMPLING METHOD: 2.25" x 4' Dual Tube
GROUND ELEVATION:
TOP OF CASING:
LOGGED BY: RJL
REMARKS:

DATE STARTED: 4-12-22
DATE COMPLETED: 4-13-22
CASING TYPE/DIAMETER:
SCREEN TYPE/SLOT:
SAND PACK TYPE:
GROUT TYPE/QUANTITY:
DEPTH TO WATER:
GROUNDWATER ELEVATION:

REC.	PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE ID	EXTENT	DEPTH (FT BLS) 68	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	E.C.
3.5			1115						0-3.5'- Clay, gray, low moisture, low density wood @ 3.3'	1.15
						70				
3.9'			1120						0-3.9'- Clay, gray to dark gray, low density, mod. density increasing w/ depth, wood (@ 0-0.4')	1.66
						72				
4.0'			1125						0-4.0'- Clay, dark gray, low moisture, mod to high density, minor silt (3.4-4.0')	1.50
						74				
3.9'			1150						0-0.6- Clay, mod to high silt, gray, low moisture, low density 0.6-3.9'- Clay, ~~gray~~ dark gray, low moisture, mod. density	1.36
						76				
3.1'	(75-78')		1155	76-78'					0-2.1'- Sand, VFG to FG, minor clay/silt @ (1.3-1.6'), gray, low moisture/dry, low density 2.1-3.1'- Clay, gray, low moisture, low density	0.40
						78				

TD = 78'

CD-6A (30-40') Native @ 28' - (Bottom of 3¼" barrels)
Bentonite Pellets @ 25'

CD-6B (56-66') Native @ 56'
Sand @ 55'
Bentonite Pellets @ 52'

CD-6C (75-80') Native @ 75'
Sand @ 74'
Bentonite Pellets @ 71'

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow & Lewis
Project Name: Castex Development, LLC
Project Location: Mermentau, LA

Project No.: 1009.475
Date: 4-12-22
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On-Site	
Ryan L.	HET
Kurt Bechinger	ERM
Katie Cummins	ICON
Jay	ICON
Dylan	ICON
Eric	DOTD/LDNR

900 - RL left HET office in Truck 28
- Stopped to get lunch/gas in Estherwood, LA

1000 - Arrived onsite @ Castex Development, LLC property
- Everyone meet near SN 76164 well location.

1030 - mobed to ICON CD-6 boring location near SNs 82022/139607 wells
- ICON attempted to EC probe CD-6 on Friday but had rig problems @ ≈20' BLS;

1100 - ICON unloaded rig/equipment
- Set up on CD-6 location; Drilling w/ Geoprobe 7822 DT track mounted rig.
- Problems rigging up / calibrating EC probe.

1225 - ICON started pushing EC Probe; Field Coordinates: 30.18274, -92.61505 ±12'

1250 - Completed EC probe.
- Highest reading of 223 mS/m @ 28' BLS.
- Total Depth of 100' BLS
- See photo of graph for details; ICON will send data file also.

1305 - Started pulling EC probe piping; pulled all pipe
- ICON went back into hole w/ 3/4" PVC tremme pipe; pushed tremme pipe down to approx. 90-95' BLS
- ICON stated that a minor amount of gas vented from the hole whenever they pulled EC probe and again when they went back into the hole w/ tremme pipe.
- DOTD/LDNR representative onsite did not indicate whether he agreed or disagreed w/ ICON's statement that the hole vented gas.

1350 - ICON completed grouting CD-6 EC probe location w/ approx. 16-20 gallons of portland/bentonite slurry; grouted by gravity feed method through 3/4" PVC Tremme pipe from bottom until grout to surface.

1400 - ICON moving rig over a few feet to begin installing CD-6 Soil Boring
- Field Coordinates: 30.18274, -92.61505 ±12'
- Good weather is in the area; ICON pushing 4-8' at a time, processing soil cores; then pushing another.

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Environmental Consultants

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1530 - Completed loggins / sampling CD-6 location 0-32' BLS
- 2.0' pushes from 16-32' BLS.
- Left 2.25" Dual Tube barrels in the hole; will leave them overnight to continue in the morning.
- ERM collecting split samples for all soil samples.

Sample Intervals			
- (0-4')	@ 1410	- ERM No Split	Salts/metals only, no HEM O+G or HC.
- (6-8')	@ 1420	-	
- (10-12')	@ 1430	- ERM collected split	
- (28-30')	@ 1520	-	

1600 - Completed work for the day; left site.

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Listow + Lewis
Project Name: Castex Development, LLC
Project Location: Mermentau, LA

Project No.: 1009.175
Date: 4-13-22
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On-Site
Ryan L - HET
Kurt Bechringer - ERM
Katie Cummins
Jay
Dylan
- ICON

645 - RL Left Rayne, LA in Truck 28
720 - Arrived onsite @ Castex Development Property
- ICON crew + Katie Cummins + Kurt Bechringer w/ ERM onsite.
735 - Warm up rig; prep equipment
745 - Start drilling - continuing CD-6 location from 32' BLS where ICON stopped yesterday
- log/sample CD-6
- Drilling w/ Geoprobe 78220T track mounted rig utilizing 2.25" x 4' Dual Tube sampling barrels.
915 - Completed drilling CD-6; Continue sampling/logging cores
~~950 - Completed logging~~
1050 - Logged to 68' BLS; ICON continuing to push deeper
1150 - Completed logging → Total Depth for CD-6 - 78' BLS
- Sample Intervals:
1) 52-54 @ 955 > ERM collecting split samples - Solids/Metals only - No OVG or H.C.
2) 76-78' @ 1155
- ~~Seek~~ See Boring Log for more details
1200 - Break for lunch
1240 - Back from lunch
- ICON removing inner rods from 2.25" Outer barrels to grout 78' CD-6 borehole
- Ran 3/4" PVC tremme pipe to TD within 2.25" Outer barrels
- ICON pulled up approx. 2 to 4' and the borehole started venting; odor was noticeable and venting was visible.
- ICON stopped pulling pipe + backed away from rig.
1410 - ICON removed tremme pipe (3/4" PVC) from inside of 2.25" outer barrels; pulled 2.25" barrels.
- went back into hole w/ 2.25" or 2.50" solid stem auger; drilled down to approx. 65' BLS w/ augers.
1505 - ICON pulling augers back out of hole; ICON stacking waste soil next to borehole/rig
1540 - Completed pulling augers; ICON went back into hole w/ 2.25" barrels w/ oversized bead to ream hole out before setting well; drilled to 74' BLS w/ oversized bead.

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Client: Liskow + Lewis
Project Name: Castex Development, LLC
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- ICON then went into hole w/ 3 1/4" barrels to 74' BLS followed by 2 1/4" barrels inside 3 1/4" down to 80' BLS
- ICON then ran 3/4" PVC 0.01" slotted screen w/ filter sock (5' Screen) and 75' of 3/4" PVC riser down hole inside of 2 1/4" barrels.
- ICON then pulled all 2 1/4" barrels from hole
  - Ran 3/4" PVC tremie pipe inside of 3 1/4" barrels to ≈ 79' BLS using PVC tremie pipe to measure the height of native material / sand in the borehole.
  - ICON putting 20/40 sand inside 3 1/4" barrels to fall ontop of well screen; pulled up 3 1/4" barrels a few feet then began putting bentonite pellets down the borehole.
  - Put Bentonite to 71' BLS; pulled 3 1/4" barrels up to 70' BLS

    CD-6 (75-80') Details
    - Screened Interval - (75-80') → 0.01" slotted screen w/ filter sock
    - Native Material @ 75' BLS
    - Sand @ 74' BLS
    - Bentonite Pellets @ 71' BLS
    - Left 3 1/4" barrels @ 70' for overnight
  - ICON left cap off of well → well is visibly venting gas.
  - ICON PID reading of gas in well / venting from well 22.9
  - ICON leaving cap off of well overnight

1720 - Completed work for the day; left site

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow & Lewis
Project Name: Castex Development, LLC
Project Location: Mermentau, LA

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Date: 4-14-22
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Onsite
Ryan L - HET
Kurt Bechinger - ERM
Katie Cummins
Dylan White
Jay Culpepper
] ICON

6:50 - RL left Rayne, LA (Truck 28)
7:25 - Arrived onsite @ Castex Development Property
740 - ICON crew onsite; check well for signs of gas venting; well is still venting → see photos and video
7:50 - ICON begins grouting CD-6 (75-80'); ran 3/4" PVC tremme pipe to ~~total~~ top of Bentonite
- grouted by gravity feed method through tremme pipe; occassionally pulling 3/4" barrels out while continuing to grout (12 buckets)
- grouted w/ approx. 48 gallons of portland/bentonite slurry ~~[illegible]~~ until grout to surface; topped off again later.
915 - ICON completed grouting CD-6 (75-80'); moved rig over slightly and began installing CD-6 (56-66') monitor well.
- Drilled down w/ solid stem augers to ≈ 55' BLS; pulled augers stacked soil cuttings on the ground next to borehole/rig
- Went back into hole w/ 3/4" barrels w/ expendable tip - drilled down to 55' BLS
- Drilled through 3/4" outer barrels w/ 2 1/4" barrels to 66' BLS -
Set well → 10' of 0.01" slotted screen w/ filter sock (56-66') -
taped filter sock to PVC riser above screen w/ black electrical tape.
and remainder w/ 3/4" PVC riser to surface.
- Pulled 2 1/4" barrels out of hole; poured sand downhole ~~[illegible]~~ native
Native @ 56' & sand to 55';
- Poured bentonite pellets downhole; pellets @ 52' BLS
- Pulled 3/4" barrels to 51' BLS
1130 - Completed setting well
CD-6 (56-66')
Screen → 56-66' - 0.01" Slotted screen (3/4" PVC) w/ filter sock
Native Material - 56'
Sand - 55'
Bentonite Pellets - 52'
- Left pellets hydrate for approx. 2 hours; then grout well.

1Break for lunch.

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow + Lewis
Project Name: Castex Development, LLC
Project Location: Mermentau, LA

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1210 - Back from lunch
- Wait for Bentonite pellets to hydrate
1305 - ICON begins grouting CD-6 (56-66') well.
~~gro~~ ICON ran 3/4" PVC tremme pipe inside of 3 1/4" barrels to top of bentonite; grouting by gravity feed by pouring portland/bentonite slurry through tremme pipe, occasionally pull up 3 1/4" barrels while grouting; grouted w/ approx. 32 gallons of grout until grout to surface.

1350 - ICON completed grouting CD-6 (56-66'); completed work for the day.
1410 - ERM + MET left site.

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow + Lewis
Project Name: Castex
Project Location: Jeff Davis Parish, La

Project No.: 1009.475
Date: 4-18-22
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800 left office — Don-HET Truck #32
850 arrived @ site
met w/ Jean
Jay + Dylan, Katie
mobbed buckets to location of Bogalusa 78222DT
ERM - Kurt B.
setup to install well @ CD-6 30.18270 92.61502 ±5'
pushing oversized shoe on 2 1/4" rods to 23' - pulled
3 1/4" rods w/ point to 28 FL BLS for surface casing
pushed 2 1/4" x 4' rods to 40 FL BLS w/ point
placed 2-3/4" x 5' screens attached to 7-3/4" x 5' risers (0.006" slot)
placed sock (filter) over screen & attached to riser w/ electrical tape
pulled all 2 1/4" rods
Native @ 28 FL BLS - added 1/4" coal bottom pellets to 25 FL BLS
1100 left 3 1/4" rods @ 23 FL BLS
checked 75-80' well @ CD-6
LEL - 99% - H_2S - 2.4 ppm VOC over 70 ppm
setup to grout 30-40' well @ CD-6
1310 began grouting well w/ tremie @ 23' BLS
poured bucket grout (with portland + bentonite) psi 1-3
pulled 3 barrels
poured bucket grout + pulled all remaining rods
topped off @ surface used ≈ 12 gal bucket grout
1355 mobbed to next area
1415 setup on CD-7 Near well 162279 serial #
30.18717 92.61245 ±5' psi 4
setup to do conductivity boring
tested probe - all probes functioning properly
began pushing probe

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Wilson Hess

Project Name: Castex

Project Location: Jeff Davis Parish, La

Project No.: 1009.A75

Date: 4-18-22

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depth	Range	High (ft)
0-6	0-170	4'
6-10	170-200	7
10-14	60-240	13
14-18	170-300	16
18-22	12-	Flat line @ 0-1835
22-26	pulled rods	
26-30	wire pulled apart - removing & replacing	
30-34	wire + probe	
34-38		
38-42		
42-46	Tested & passed	
46-50		
50-54		
54-58		
58-62		
62-66		
66-70		
70-74		
74-78		
78-82		
82-86		
86-90		
90-94		
94-98		

grouted borehole - ~ 20 ft deep
moved over ≈ 1 foot to install EC Probe

1550 begin pushing conductivity Probe from land surface

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Cristan + Lewis
Project Name: Castex
Project Location: Jeff Davis Parish, LA

Project No.: 1009.A75
Date: 4-18-23
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Depth	Range	High (ft)
0-6	0-190	5'
6-10	130-280	9'
10-14	70-220	13'
14-18	150-250	17'
18-22	90-150	18'
22-26	50-120	23'
26-30	60-150	27'
30-34	35-130	30'
34-38	30-124	34'
38-42	35-75	39'
42-46	25-50	
46-50	25-80	48'
50-54	60-115	50'
54-58	35-90	55'
58-62	40-60	60'
62-66	30-50	
66-70	20-85	68'
70-74	40-133	73'
74-78	40-135	75
78-82	35-60	
82-86	25-120	84'
86-90	20-115	88'
90-94	10-90	92'
~~94-98~~	93.10' ended ≈ 94'	

1610 ended test
pulled conductivity string
tried to get thermic down hole - stopped @ 40'
1630 Augered down hole w/ 2½" Augers to a depth of 60 ft.
all cuttings left on side hole
pulled augers - pushed 2½" x 4' rods w/ point to 92 ft.
1800 left site
1845 arrived @ office

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants
91 Apollo Road
Scott, Louisiana 70583
(337) 261-1963 Fax (337) 261-1953

BORING No. CD-7

PROJECT NAME: Castex
PROJECT NUMBER: 1009.A75
LOCATION: Jeff Davis Parish, LA
DRILLING METHOD: Geoprobe 7822 DT
SAMPLING METHOD: 2¼" x 4' dual tube
GROUND ELEVATION: —
TOP OF CASING: —
LOGGED BY: DJW
REMARKS: 30.18717 92.61245 ±9' Total Depth 60ft

DATE STARTED: 4-19-22
DATE COMPLETED: 4-20-22
CASING TYPE/DIAMETER: PVC 3/4"
SCREEN TYPE/SLOT: PVC 0.006"
SAND PACK TYPE: 20/40 / Native
GROUT TYPE/QUANTITY: Portland Bentonite Grout
DEPTH TO WATER: —
GROUNDWATER ELEVATION: —

RECOVERY	PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE ID	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONDUCTIVITY ms/cm	PICTURE
	0		0940			2			Clay, brown to lt. brown, low cut, low to mod dry, Fe, mn	1.04	5
2.5'	0		0945	2.4 No split	X	4				2.36	6
	0		0950	4.6	X	6			Clay, lt brown, gray, low cut, mod dry, mn minor silt,	2.41	7
3.9'	0	CD-7A	0955			8				1.63	8
	0		1000	8.10	X	10	0-1.7		Clay as above	2.05	9
3.5'	0		1005			12	1.7-3.5		Silt, minor VFG sd, brown, saturated, low dry	1.71	10
	0		1010			14	0-2.6		Silt as above, ca	3.22	11
3.9'	0		1015			16	2.6-3.9		Clay, brown + gray, low cut, mod to high dry, mn, ca 2.6-2.8'	3.61	12
2.5'	0		1020			18			Clay, gray + brown, low cut, mod to high dry, mn Ca @ 1.1', minor silt content	3.22	13
2.5'	0		1025			20			Clay gray + brown, low moist, low to mod dry, mn, Fe	1.11	14
2.5'	0		1030			22			Clay as above, silt lenses throughout, shell frag	2.30	15
2.8'	0		1035			24	0-1.6 1.6-2.8		Clay, gray, as above Silt, brown, saturated, low dry, shell frag 1.6-2.3 mod clay content	1.09	16
2.6'	0		1040			26	0-1.1 1.1-2.6		as above mod moist Clay gray + brown, low moist, low to mod dry, Fe, Clayey silt lm 2.2-2.2'	1.26	17
3.1	0		1045	26-28	X	28			Clay, gray + brown, low moist, low to mod dry, Fe, Ca, silt lm 2.9-3.0'	1.79	18
2.8	0	Screen CD-7B	1050			30	0-0.4' 0.4-1.2 1.2-2.2 2.2-2.8		Clay as above Silt, brown, saturated, low dry Silty Clay to Clay, brown + gray, low cut, low to mod dry, Fe Silt, minor clay content, brown + gray, saturated, low dry	1.67	19
3.0'	0		1055			32			Silt brown + gray, saturated, low dry, clay lens blue gray 0.7-1.4'	0.73	20
3.1'	0		1100			34	0-2.1 2.1-3.1'		Clay, blue gray + brown, low cut, low to mod dry Clayey silt, gray, saturated, low dry	0.76	21
2.0	0		1105			36			Silt brown + gray, saturated, low dry, clay lm 0.5-1'	0.78	22
2.2'	0		1130	36-38	X	38			Silt, brown, saturated, low dry	0.48	23
3.3'	0		1135						Silt as above	0.49	24

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants
91 Apollo Road
Scott, Louisiana 70583
(337) 261-1963 Fax (337) 261-1953

BORING No. CD-7

PROJECT NAME: Castex
PROJECT NUMBER: 1009.A75
LOCATION: Jeff Davis Parish, La
DRILLING METHOD: Geoprobe 7822DT
SAMPLING METHOD: 2¼" x 4' dual tubes
GROUND ELEVATION: –
TOP OF CASING: –
LOGGED BY: DSW
REMARKS: 30.18717 92.61245 ±9'

DATE STARTED: 4-19-22
DATE COMPLETED: 4-20-22
CASING TYPE/DIAMETER: PVC 3/4"
SCREEN TYPE/SLOT: PVC w/filtersock / 0.006"
SAND PACK TYPE: 20/40 + Native
GROUT TYPE/QUANTITY: Portland Bags 6+
DEPTH TO WATER: –
GROUNDWATER ELEVATION: –
Total Depth: 60ft.

	PID (ppm)		SAMPLE TIME	SAMPLE	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION		
3.5'	0	CD-7 Native Native	1140			42			Silt as above	0.51	25
3.4'	0		1145			44			as above	0.48	26
3.6'	0		1150			46			as above	0.40	27
3.6	0		1155			48			as above	0.45	28
4.0	0		1200			50	0.1 1.4		Silt as above; Clay, gray, brown, low bound dots, silt lens 2.35-2.45'	1.14	29 30
4.0	0		1205			52			Clay, gray, brown, low bound dots	1.17	31 32
4.0	0		1210			54			Clay as above wood	0.94	33 34
3.8	0		1215			56			Clay as above wood	1.08	35 36
4.0	0		1220			58			Clay as above organics silt lens 2.4-2.5', 3.1-3.4' 3.6-3.7'	0.94	37 38
4.0	0		1225	58-60' X		60			Clay ~~as above~~ organics gray, brown, low dots minor silt content	0.64	39 40
						62					
						64					
						66			TD 60ft		
						68					
						70					
						72					
						74					
						76					
						78					
						80					

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow + Lewis
Project Name: Castex
Project Location: Jeff Davis Parish, La

Project No.: 1009.A75
Date: 4-19-22
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630 left Dom-H&T Truck #32
715 arrived onsite
met w/ Tom - Jay, Dylan, Katie
Elm - Kurt B.
Tom setup to grout borehole
tremie @ 88' BLS
poured grout down tremie (7 gallons)
pulled 4 barrels - poured (4 gallons)
pulled 3 barrels - poured to bucket
pulled 5 barrels - " "
pulled 4 barrels - " " " "
pulled 6 barrels - " " " "
pulled remain barrels + topped off @ surface ≈ 28 gallons
threw pile of soil generated into woods
moved over to install boring (3 ft south)
0930 began pushing cores for soil sampling + logging
pushed 2 1/4" x 4' dual tubes w/ Geoprobe 7822DT
pushed cores for land surface to 60 ft BLS
logged + sampled all cores
Tom setup to grout borehole
placed tremie down 2 1/4" rods
pulled 2 1/4" rods - placed funnel on tremie + filled till return @ surface
used ≈ 20 gallons grout - mound over to set well (South) (CD-7C)
used 2 1/2" auger to 30 ft BLS
throwing cuttings in woods west of boring
1445 began pushing 3 1/4" x 4' w/ expendable point - pushed to 40 ft BLS
ran 2 1/4" rods w/ expendable point inside the 3 1/4" barrels - pushing out expendable
point on 3 1/4" rods + continuing to 50 ft BLS w/ 2 1/4" barrels
placed 2 - 3/4" x 5' screens (0.006" slot) attached to 9 - 3/4" x 5' risers
a filter sock was placed over the screen and attached to the riser w/ electrical tape
Poured ≈ 2 gallons water - removed all 2 1/4" rods
Native @ 40 ft, 20/40 sand to 39', 1/4" coated pellets (bentonite) to 36 ft BLS
Casing left @ 34.5 ft - let hydrate @ 1530

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow + Lewis
Project Name: Castex
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moved south ≈ 3 ft to set next well (CD-7B)
1535 begin pushing the 2 1/4" rods w/ oversized point to 26 ft BLS
pulled 2 1/4" rods - ran the 3 1/4" barrels down to 26 ft BLS w/ expendable point
lower the 2 1/4" rods w/ expendable point to 26 ft inside 3 1/4" barrels
pushed 2 1/4" rods from 26 ft to 32 ft BLS - placed 1-3/4"x5' screen (0.006 slot) w/ filter sock
pulled 2 1/4" rods attached to 6-3/4"x5' risers
native to 27 ft BLS, 20/40 sand to 26 ft BLS 1/4" coated bentonite pellets to 23 ft BLS
left 3 1/4" casing @ 22 ft BLS - let hydrate @ 1625
moved south ≈ 3 ft to set (CD-7A)
1625 began pushing 2 1/4" rods w/ expendable point to 15 ft BLS
added 1-3/4"x5' screen w/ filter sock (0.006" slot) attached to 3-3/4"x5' risers
filter sock adhered w/ electrical tape
pulled all 2 1/4" rods
hole open to 15 ft BLS - poured 20/40 sand to 9 ft BLS -
added 1/4" coated bentonite pellets to 6 ft BLS - poured a bottle of water
let hydrate @ 1650
cleaned all pipe - picked up area

1700 left site
1745 arrived @ office

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Lisko + Lewis
Project Name: Castex
Project Location: Jeff Davis Parish, La

Project No.: 1009.475
Date: 4-20-22
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630 left Dun-HET #32
715 arrived onsite
met w/ Tom; Jay, Dylan, Katie
ERM - Kurt B.
Tom setup to grout wells CD-7A, B, + C + pull 3¼" casings on B + C
Tom setup on CD-7B - tremie @ 20' BLS
poured a bucket of grout downtremie - pulled 4-3¼" barrels
poured a bucket of grout - - - - pulled remaining 2 barrels
+ topped off surface - used ≈12 gallons of grout
CD-7C
tremie @ 35' - poured a bucket of grout downtremie - pulled 3 barrels
poured a bucket of grout down tremie - pulled 3 barrels
poured a bucket of grout down tremie - pulled 3 barrels remaining
poured a bucket of grout + topped off surface - used ≈16 gallons of grout
CD-7A used ≈ 2 gallons grout
picked up area - mobbed to next/back
1000 Setup on CD-8
30.18114 92.623228 ±5'
tested HPT Equipment - passed
strung pipe to conduct HPT boring
retested - passed
HPT Probe

Depth	EC Reading mS/m	Depth	Reading	Depth	Reading	Depth	Reading
0	115	26	33	50	50	74	52
4	150	28	36	52	53	76	42
6	145	30	43	54	64	78	39
8	122	32	47	56	62	80	41
10	120	34	134	58	69	82	21
12	118	36	147	60	67	84	22
14	52	38	44	62	97	86	24
16	90	40	69	64	50	88	21
18	146	42	44	66	52	90	20
20	79	44	42	68	73	92	23
22	31	46	35	70	75	91.1	
24	26	48	76	72	50		

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow + Lewis
Project Name: Castex
Project Location: Jeff Davis Parish, La

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1350 finished HPT Boring + Begin pulling string of Pipe
max 170 @ 74.4' BLS (EC Reading)
1415 begin augering hole (HPT Boring) to ft BLS
torsion out hole + run 2 1/4" barrels to depth
All cuttings produced during Augering thrown around to disperse
ran augers down to 60 ft BLS
pulled augers - placed point on 2 1/4" rods + pushed down to 91 ft
placed tremie @ 90 ft BLS - poured 2 Buckets -
tremie broke - lost 65 ft of Tremie - only 25 ft left
pulled barrels - filling as needed - poured 1 bucket, 1 bucket, 1 bucket, 1 bucket
1 bucket, 1 bucket, - ≈ 30 gallons grout
decomposed barrels are being removed
1700 left site
1745 arrived office

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91 Apollo Road
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(337) 261-1963 Fax (337) 261-1953

BORING No. CD-8

PROJECT NAME: Castex
PROJECT NUMBER: 1009.A75
LOCATION: Jeff Davis Parish La
DRILLING METHOD: Geoprobe 7822DT
SAMPLING METHOD: 2 1/4" x 4' dual tube
GROUND ELEVATION: –
TOP OF CASING: –
LOGGED BY: DJW
REMARKS: 30.18114 92.62328 ±5'

DATE STARTED: 4-21-22
DATE COMPLETED: 4-22-22
CASING TYPE/DIAMETER: PVC 3/4"
SCREEN TYPE/SLOT: PVC 0.006" w/filter sand
SAND PACK TYPE: 20/40 / Native
GROUT TYPE/QUANTITY: Portland Bags Gal
DEPTH TO WATER: –
GROUNDWATER ELEVATION: –
Total Depth: 64 ft

RECOVERY	PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE ID	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONDUCTIVITY ms/cm	PICTURE
	0		805			2	0-1		Silty clay, d brown to brown, low wt, low dlt, ca @ 0.8-1.0'	0.83	–
2.7'	0		810	2-4 no spl	X	4	1-2.7		Clay, minor silt, yellow brown + gray, low wt, low to mod dlt, mn	1.53	–
	0		815	4-6	X	6			Clay, gray + brown, low moist, mod dlt, fr, mn, ca	2.18	–
4.0	0		820			8				1.55	–
	0		825	8-10'	X	10			Clay, as above	1.82	–
4.0'	0		830			12				1.40	–
	0		0835			14	0-2.2		Clay, greenish gray, low wt, low to mod dlt, mn, fr, ca	1.56	–
4.0'	0		0840			16	2.2-3.2 / 3.2-4.0		Clay, silt brown, low to mod wt, low dlt / Clay, mod silt, brown, low wt, low to mod dlt	2.02	–
3.0	0		0845			18	0-0.7 / 0.7-2.1 / 2.4-3.0		as above / Silt, minor clay, brown, saturated, low dlt / Clay, brown + gray, low wt, mod dlt, ca	0.92	–
2.8'	0		0850	18-20	X	20			Clay, gray + brown, low wt, low to mod dlt, ca, fr, silt lens @ 2.4-2.55	2.17	–
3.2'	0		0905 / 0855			22	0-0.3 / 0.3-2.2		as above / Silt, brown, saturated, low dlt, clay lens @ 2.0-2.2'	0.90	–
3.6'	0		0910			24			Silt, brown, saturated, low dlt	0.44	–
3.7	0	Native	0915			26			Silt as above	0.37	–
3.9	0		0920			28			Silt as above	0.50	–
3.5	0		0925			30			Silt as above	0.56	–
3.9'	0		0930			32			Silt as above clay lens @ 3.5-3.6'	0.66	–
3.8'	0		0935			34	0-1.5 / 1.5-3.8		Silt as above / Clay, brown, low wt, low to mod dlt, minor silt 1.5-2.0'	1.66	–
3.9'	0		0940			36			Clay, brown, low wt, low to mod dlt, organic	1.80	–
2.9'	0		0945			38	0-1.9 / 1.9-2.9		Clay as above / Silt, minor to mod clay, gray + brown, low to mod moist, low dlt, clay lens 2.1-2.4'	1.35	–
2.8'	0		1020				0-2.3 / 2.3-2.6		Clay, silt, brown + gray, mod moist, low dlt, clay lens 1.1-1.3, silt lens 1.3-1.6' / Clay, gray + brown, low wt, low to mod dlt	0.76	–

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BORING No. CD-8

PROJECT NAME: Castex
PROJECT NUMBER: 1009.A75
LOCATION: Jeff Davis Parish, La
DRILLING METHOD: Geoprobe 7822DT
SAMPLING METHOD: 2¼" x 4' clear tubes
GROUND ELEVATION: –
TOP OF CASING: –
LOGGED BY: DJ
REMARKS: 30.18114 92.62328 ±5'

DATE STARTED: 4-21-22
DATE COMPLETED: 4-22-22
CASING TYPE/DIAMETER: PVC 3/4"
SCREEN TYPE/SLOT: PVC 0.006" Filter sock
SAND PACK TYPE: 20/40 / Native
GROUT TYPE/QUANTITY: Portland Bentonite Grout
DEPTH TO WATER: –
GROUNDWATER ELEVATION: –
Total Depth: 64 ft

PID (ppm)		SAMPLE TIME	SAMPLE	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION		
2.1' 0		1025			42	0-0.8 0.8-1.5 1.5-2.0 2.0-2.1		Clay w/ silt, brown, saturated, low dens Clay, brown, low mt, low to med dens Clay, silt, brown, mod moist, low dens Silt, brown, low moist, low dens	1.04	–
2.4' 0		1030			44	0-0.6 0.6-1.9 1.9-2.4		as above Clay, gray, low moist, low to med dens Silt, brown, low mt, low dens	1.14	–
2.7' 0		1035			46	0-0.5 0.5-1.7 1.7-2.7		as above Clay, gray + brown, low mt, low dens Silt, brown + gray, saturated, low dens	0.89	–
2.4 0		1040			48			Silt, brown, saturated, low density	0.34	–
3.0 0		1045	48-50		50	0-0.7 0.7-2.3 2.3-3.0		Silt as above Clay, gray, low mt, low to med dens Silt, brown, saturated, low dens	1.48	–
2.4 0		1130			52			Silt, brown, saturated, low density	0.38	–
2.7 0		1135			54			Silt as above	0.55	–
4.0 0		1310			56	0-2.2 2.2-3.3 3.3-4.0		as above Silty clay, brown + gray, mod moist, low dens Silt, brown, saturated, low density	0.67	–
4.0 0		1315			58	0-3.6 3.6-4.0		Silt as above Clay w/ silt, brown + gray, mod moist, low dens	0.67	–
4.0 0	CD-8 Native	1320			60			Silt, minor clay content, brown + gray, saturated, low dens	0.83	–
4.0 0		1345			62			Silt, brown, saturated, low density	0.74	–
4.0 0		1350	62-64		64	0-0.8 0.8-4.0		Silt, brown, saturated, low dens Clay, brown + gray, low moist, low to med dens, silt lens 2.8-3.0'	1.25	–

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Linkow + Lewis
Project Name: Castex
Project Location: Jeff Davis Parish, La

Project No.: 1009.A75
Date: 4-21-22
Page 1 of

630 left Dom-HET #32
715 arrived on-site
met w/ Ian - Jay, Dylan, Kati.
ERM - Jake Roberson
Ian surface completed CD-1A, B, + C
Ian safety to install soil boring @ CD-8
located ~3' south of HPT borehole
750 began pushing cores by 2 1/4" x 4' sand tubes w/ Geoprobe 7822DT
pushed cores from land surface to 64 ft BLS - logged + sampled all cores
pulled all 2 1/4" barrels - used 2 1/2" Augers to ream hole to 50 ft BLS
pulled Augers - throwing cuttings near borehole on ground
1505 began pushing 3 1/4" barrels w/ expendable point to 52 ft BLS (CD-8B)
lowered 2 1/4" x 4' rods to 52 ft then continued to 62 ft BLS
added 2- 3/4" x 5' screens (0.006" slot) attached to 11 - 3/4" x 5' risers
placed a filter sock over screen and adhered to riser w/ electrical tape
pulled 2 1/4" rods - Native @ 55 ft BLS - added 20/40 sand to 50
1/4" coated bentonite pellets to 47 - 3 1/4" rods left @ 45' BLS
let hydrate over night - added ~ 4 gallons water
moved ~~[illegible]~~ Castex 3 ft to install CD-8A
placed oversized point on 2 1/4" rods - pushed to 20 ft BLS - pulled rods
placed expendible point on 3 1/4" rods + pushed to 20 ft BLS
pushed 2 1/4" x 4' rods to 30 ft BLS
added 2- 3/4" x 5' screens (0.006" slot) attached to 8 - 3/4" x 5' risers
added filter sock over screen + affixed it to riser w/ electrical tape
pulled all 2 1/4" Barrels - Native @ 20 ft BLS
added 20/40 sand to 19 ft BLS, add 1/4" coated bentonite pellets to 16 ft BLS
left 3 1/4" casing @ 15 ft BLS - let hydrate overnight
1700 left site
1745 arrived office

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow + Lewis
Project Name: Castex
Project Location: Jeff Davis Parish, La

Project No.: 1009.A75
Date: 4-22-22
Page 1 of

630 left Dom-HET #32
715 arrival on-site
met w/ Jim - Jay, Katie,
ERM - Jake R
Setting to grout monitor wells CD-8A + CD-8B
placed tremie in CD-8A
mixed grout in 5 gallon bucket
poured grout down tremie - pulled 3½" casing - filling as needed
used ≈ 14 gallons grout
placed tremie down CD-8B
mixed grout - poured down tremie - pulled 3½" casing - filling as needed
used ≈ 24 gallons grout
decanned all equipment
mobed to ED-5 area

1030 left site.
1115 arrival en-site.

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
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Client: Liston + Lewis
Project Name: Caster Development
Project Location: Mermentau, LA

Project No.: 1009.475
Date: 4-25-22
Page 1 of

900 - RL left HET office in Truck 28
- Stopped for drinks, water, ice.
955 - Arrived onsite near CD-5 ICON location.
- ICON + ERM already onsite.
1015 - ICON set up to drill next location
Boring / Monitor well @ ICON's CD-5 location
- drilling w/ Geoprobe 7822 DT
- Using ≈2½" solid-stem augers to auger down; augered to approx. 68' BLS.
1200 - Break for lunch.
1300 - ICON started pulling augers.
1330 - ICON completed pulling augers; stocking soil cuttings next to hole on the ground - throwing the soil into the field surrounding boring location.
- ICON went back into hole w/ 2¼" barrels w/ discrete tip down to 72' BLS;
1400 - Storms in the area; ICON shut down w/ rain + lightning in the vicinity; wait for weather to pass.
1500 - ICON called off remainder of the day; ~~weather is~~ storm weather still in the vicinity;
- ICON left 2¼" barrels in hole down to 72' BLS; will complete sampling and monitor well installation tomorrow.
- Left site

Onsite
Ryan L. - HET
Charles Trahan - ERM
Katie Cummins
Jay Culpepper
Mason Tule
} ICON

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BORING No. CD-5 continued

PROJECT NAME: Castex Development
PROJECT NUMBER: 1009.475
LOCATION: Mermentau, LA
DRILLING METHOD: Geoprobe 7822DT
SAMPLING METHOD: 2¼" X 4' Dual Tube
GROUND ELEVATION: –
TOP OF CASING: –
LOGGED BY: RJL
REMARKS: Field Coordinates: 30.18383801, -92.62171957

DATE STARTED: 4-26-22
DATE COMPLETED: 4-26-22
CASING TYPE/DIAMETER: 3/4" PVC
SCREEN TYPE/SLOT: 0.01" Slotted Screen w/ Filter sock
SAND PACK TYPE: –
GROUT TYPE/QUANTITY: Portland/Bentonite Slurry
DEPTH TO WATER:
GROUNDWATER ELEVATION:

REC	PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE ID	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	E.C.
3.6'	0		805	72-74' Eqm Silt		72			0-3.6' - Clay, gray, mod. density, low moisture	4.17
						74				
2.9'	0		835						0-2.5' - Clay - as above low to mod. density 2.5-2.9' - Clay, minor to mod silt increasing w/ depth, gray, low moisture, low density	2.54
						76				
3.8'	0		835						0-3.3' - Clay, none to mod silt, gray, low moisture, low density 3.3-3.8' - Clay, high silt, gray, low moisture, low density	1.82
						78				
4.0'	0		845						0-1.7' - Silt, mod clay, gray, saturated to high moisture, low density 1.7'-4.0' - Clay, high silt content, gray, low moisture, low density lenses of higher silt content throughout (alternating)	1.25
						80				
2.9'	0		905						0-0.4' - Clay, as above 0.4-0.9' - Silt, mod clay, gray, saturated, low density 0.9-2.9' - Clay, mod to high silt, low moisture, low density	1.03
						82				
3.9'	0		915						0-3.9' - Clay, low to mod. silt, gray, low moisture, low density	1.23
						84				
3.1'	0		925						0-3.1' - Clay, mod to high silt (0-0.5', & 2.0'-3.1'), minor silt (0.5-2.0') gray, low moisture, low density.	1.08
						86				
3.0'	0		935						0-3.0' - Clay, high silt (0.3-1.0') w/ high moisture, gray, low moisture, low to mod. density	1.16
						88				
3.1'	0		940	88-90' Eqm Silt					0-1.2' - Clay, gray, low moisture, low to mod density 1.2-2.9' - Clay, silty lenses @ (1.2-1.6') (1.9-2.2'), gray, low moisture low density 2.9-3.1' - Silt, mod. sand, gray, high moisture, low density	1.08
						90				
3.6'	0		1000						0-0.5' - Clay, gray, low moisture, low density 0.5'-3.6' - Silt, mod clay in lenses throughout mod to high moisture, low density, minor VF sand @ TD	0.44
						92				

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BORING No. CD-5

PROJECT NAME: Castex Development
PROJECT NUMBER: 1009.475
LOCATION: Mermentau, LA
DRILLING METHOD: Geoprobe 7822 DT
SAMPLING METHOD: 4' x 2¼" Dual Tube
GROUND ELEVATION: –
TOP OF CASING: –
LOGGED BY: BJL
REMARKS: Field Coordinates: 30.18883801, -92.6217957

DATE STARTED: 4-26-22
DATE COMPLETED: 4-26-22
CASING TYPE/DIAMETER: 3/4" PVC
SCREEN TYPE/SLOT: 0.01" Slotted Screen w/ Filter sock
SAND PACK TYPE: –
GROUT TYPE/QUANTITY: Portland / Bentonite Slurry
DEPTH TO WATER:
GROUNDWATER ELEVATION:

REC.	PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE ID	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	E.C.
						92			0-0.3'- Silt, gray, saturated, low density	
3.0'	0		1015						~~0.3-1.4'- Clay, high silt, gray, low moisture, low density~~	0.77
									0.3-3.0'- Silt, ~~high~~ mod clay, gray, low to mod moisture, low density	
						94			0-0.3- Silt, as above	
2.3'	0		1035	94-96' Grab Split					0.3-2.3'- Clay, mod silt (0.3-0.8') , gray, low moisture, low to mod. density.	1.10
						96				

TD = 96'

Native Material : 78' BLS
Sand : No Sand
Bentonite Pellets : 75' BLS
Well screen : 90-95' BLS

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
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Client: Liskow + Lewis
Project Name: Castex Development
Project Location: Mermentau, LA

Project No.: 1009.475
Date: 4-26-22
Page 1 of 2

On-Site
Ryan L - MET
Charles Tahan - ERM
Katie Cummins
Sam Culpepper } ICON
Mason J

6:50 - RL left Raymond, LA (Truck 128)
7:30 - Arrived onsite @ Castex Development Property
7:45 - ICON onsite
- Set up on CD-5 location from yesterday afternoon; pulled 2¼" dual tube inner rods and discrete tip;
- went back into hole w/ sample liners to begin sampling; ~~2¼" dual tube outer rods~~ @ 72' BLS ∴ 0 - 72' previously sampled by ICON w/ ERM collecting split samples, at an earlier date.
- ~~two (2) foot pushed~~
- two (2) foot pushes for all sampling.

10:45 - Completed sampling - TD = 96' BLS → See log for details for 72 - 96' BLS → Sample Split samples collected by ERM
- Completed logging / sampling
- ICON pulling 2¼" dual tube barrels and sampling tooling.
- Went back in same hole w/ 2¼" barrels w/ oversized head and drilled down to 72' BLS.

11:30 - Pulled out of hole
12:00 - ICON went back into same hole w/ 3¼" outer rods to 78' BLS

12:30 - Break for lunch.
13:30 - ICON running 2¼" rods downhole through 3¼" outer rods (casing)
- using 3¼" rods to case off upper zones from lower zone before setting well; drilled through 3¼" down to 95' BLS

13:55 - ICON ran 3¼" PVC screen and riser down hole through 2¼" barrels; (5') five foot screen from 90-95' BLS .01" slotted screen w/ filter sock; used black elastic tape to secure filter sock to screen/riser
- Started pulling 2¼" pipe; pulled all 2¼" pipe before placing sand or bentonite pellets;
- ICON measured for well details - Native material fell in to 78' BLS (base of 3¼" casing).

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
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Client: Listowe Illinois
Project Name: Castex Development
Project Location: Mermentau, LA

Project No.: 1009.475
Date: 4-26-22
Page 2 of 2

- ICON poured ~~[illegible]~~ bentonite pellets in while pulling up 3¼" casing as needed. = Poured bentonite to 75' BLS.
- Pulled casing up to 71' BLS
- letting Bentonite pellets set.

CD-5C (90-95') well details

Screen - 90-95' BLS → 0.01" slotted screen w/ filter sock + 3/4" PVC riser
Native Materials - 78' BLS
Sand → No Sand
Bentonite Pellets - 75' BLS
Field Coordinates: 30.18387001, -92.62171951

14:45 - Completed pouring bentonite; ICON now waiting till approx. 1645 to grout CD-5C well.

1645 - ICON started grouting CD-5C; ran 3/4" PVC tremme pipe to top of bentonite and grouted by gravity feed method until grout nearly to surface; used approx. 54 gallons of portland bentonite slurry to grout;
- ICON plans on topping off grout in the morning

1805 - Completed grouting; left site

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BORING No. CD- 9

PROJECT NAME: Castex Development
PROJECT NUMBER: 1009.475
LOCATION: Mermentau, LA
DRILLING METHOD: Geoprobe 7822 DT
SAMPLING METHOD: 4" x 2.25" Dual Tube
GROUND ELEVATION: -
TOP OF CASING:
LOGGED BY: RJL
REMARKS: Field Coordinates: 30.18522887, -92.61781345

DATE STARTED: 4-27-22
DATE COMPLETED: 4-28-22
CASING TYPE/DIAMETER: 3/4" PVC
SCREEN TYPE/SLOT: 0.01" Slotted screen w/ filter sock
SAND PACK TYPE: —
GROUT TYPE/QUANTITY: Portland/Bentonite Slurry
DEPTH TO WATER:
GROUNDWATER ELEVATION:

REC.	PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE ID	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	* 2.0' pushes from 12' BLS to TD * LITHOLOGIC DESCRIPTION	E.C.
3.0'			1400			2			0-1.0'- Silt, brown, low moisture, low density, crumbly	0.23
			1455	2-4' Eram NO split					1.0-3.0'- Clay, low silt content (1.0-1.6'), brown to grayish brown, low moisture, low density, Fe staining throughout.	1.40
4.0'			1500			4			0-4.0'- Clay, yellow-brown to gray w/ orange mottling, low moisture and to high density increasing w/ depth, Mn staining / nodules throughout	1.25
			1505	6-8' Eram		6				1.53
4.0'			1510			8			0-4.0'- Clay, yellow-brown/gray w/ reddish brown mottling, minor silt content, low moisture, high density, Mn nodules/staining throughout	1.62
			1515	10-12 Eram		10				1.66
2.9'			1520			12			0-2.9'- Clay, mod silt (2.5-2.9'), light brownish gray, low moisture, high to mod. density decreasing w/ depth. Fe/Mn staining throughout	1.63
2.7'			1525			14			0-2.7'- Clay, minor to mod. silt content, light brownish gray, low moisture, mod to high density, minor Fe staining	1.50
2.4'			1530			16			0-0.7'- Clay as above 0.7-1.2'- Clay, high silt, light reddish brown, low moisture, low density 1.2-2.4'- Silt, light reddish brown, low density, low moisture	0.75
2.6'			1535			18			0-2.6'- Silt, reddish brown to brown, high moisture, low density clayey silt lens @ (1.5-1.8') to mod.	0.66
3.1'			1540			20			0-3.1'- Silt, reddish brown & brown, high moisture (0-2.1') & low to mod. moisture (2.1-3.1') low density, clay lens @ 2.7 1" shell hash (2.0-2.2')	0.37
3.0'			1545	22-24' Eram split		22			0-1.3- Silt, reddish brown, saturated, low density 1.3'-3.0'- Clay, minor silt (1.3-1.6'), brownish gray, low moisture, mod density, vert. silt lens (2.5-2.8')	0.58
3.0'			1605			24			0-0.6- Clay, mod silt, reddish brown + gray, low moisture, high density 0.6-3.0'- Silt, brown/grayish brown, saturated, low density clay lens @ (2.7-2.9')	0.49
						26				

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BORING No. CD-9

PROJECT NAME: Castex Development
PROJECT NUMBER: 1009.A75
LOCATION: Mermentau, LA
DRILLING METHOD: Geoprobe 7822 DT
SAMPLING METHOD: 4" x 2.25" Dual Tube
GROUND ELEVATION: -
TOP OF CASING: -
LOGGED BY: RJL
REMARKS: Field Coordinates: 30.18522887, -92.61781345

DATE STARTED: 4-27-22
DATE COMPLETED: 4-28-22
CASING TYPE/DIAMETER: 3/4" PVC
SCREEN TYPE/SLOT: 0.01" Slotted screen w/ Filter sock
SAND PACK TYPE: -
GROUT TYPE/QUANTITY: Portland/Bentonite Slurry
DEPTH TO WATER:
GROUNDWATER ELEVATION:

REC.	PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE ID	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	E.C.
									* 2.0' pushes 12' - TD	
2.0'			1620			26			0-2.0' - Silt, brown, saturated, low density	0.52
3.6'			1625			28			0-3.6' - Silt, brown to ~~[illegible]~~ brownish gray, saturated, low density	0.59
3.7'			1630			30			0-2.5' - Silt, as above 2.5-3.7' - Clay, gray, low moisture, low density.	0.56
2.7'			1635			32			0-2.0' - as above 2.0-2.7' - Silt, minor clay, gray/brownish gray, high moisture, low density	1.02
3.9'			1640			34			0-1.5' - Silt, as above, saturated 1.5-3.4 - Silt, minor clay, gray, high moisture, low density (1.5-1.9)(2.8-3.0) clay lenses 3.4-3.9 - clay, gray, low moisture, low density	0.69
3.7'			~~1640~~ 1700			36			0-3.7' - Silt, gray/brownish gray, saturated, low density minor VFG sand	0.60
2.5'			1705			~~38~~			0-1.4' - Clay, gray, low moisture, low density 1.4-2.5, Silt, minor to mod clay, low moisture to damp, low density	1.09
3.8'			1710			40			0-2.0' - Silt, minor VFG sand, brown, saturated, low density 2.0-2.9 - Silt, minor clay, gray, mod moisture, low density 2.9-3.8' - Silt, high clay, gray, low moisture, low density clay lens (3.3-3.5)	0.59
3.8'			1715			42			0-3.8' - Silt, gray, saturated/high moisture (0-2.6') & low moisture (2.6-3.8') low density, high clay content (3.0-3.8')	0.68
3.4'						44			0-1.2' - Clay, mod to high silt, gray, low moisture, low density 1.2-3.1 - Silt, mod to high clay, gray low moisture, low density 3.1-3.4 - Clay, gray, low moisture, low density minor silt	1.20
						46				

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants
91 Apollo Road
Scott, Louisiana 70583
(337) 261-1963 Fax (337) 261-1953

BORING No. CD-9

PROJECT NAME: Castex Development
PROJECT NUMBER: 1009.A73
LOCATION: Mermentau, LA
DRILLING METHOD: Geoprobe 7822 DT
SAMPLING METHOD: 4' x 2.25" Dual Tube
GROUND ELEVATION: –
TOP OF CASING: –
LOGGED BY: RJL
REMARKS: Field Coordinates: 30.18522887, -92.61781845

DATE STARTED: 4-27-22
DATE COMPLETED: 4-28-22
CASING TYPE/DIAMETER: 3/4" PVC
SCREEN TYPE/SLOT: 0.01" Slotted Screen w/ Filter sock
SAND PACK TYPE: —
GROUT TYPE/QUANTITY: Portland/Bentonite Slurry
DEPTH TO WATER:
GROUNDWATER ELEVATION:

REC.	PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE ID	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	E.C.
2.4'			1725			46			0-0.4-Silt, gray, high moisture, low density 0.4-2.4'-Clay minor silt, gray low moisture, mod to high density silt lens @ (1.7-2.0')	0.84
3.9' 4-27 4-28			1730	48-50 Silt		48			0-3.2'-(1.5-2') alternating clay w/ mod to high silt and silty mod clay, gray, low density, high moisture in silt, low in clay. 3.2-3.9'-Silt, gray, saturated, low density	0.96
4.0'			840			50			0-2.0'-Silt, mod clay (1.4-2.0'), gray, saturated (0-1.4') to mod moisture (1.4-2.0') low density 2.0'-4.0')-Clay, minor to mod silt, gray, low moisture, low to mod density	0.96
3.9'			845			52			0-1.2'-Clay - as above 1.2-3.9'-~~silt~~, high ~~clay~~ silt, low moisture, low density clay	0.67
4.0'			850			54			0-4.0'-Clay, gray, low moisture, low to mod density 1.0" silt lense @ 1.8', 2.1', + 3.4'	1.16
4.0'			855	56-58' Eden Silt		56			0-4.0'-Clay gray, low moisture, mod to high density silt lens/pocket @ (3.3-3.4')	1.21
3.8'			900	58-60' Eden Silt		58			0-0.2'-Clay - as above 0.2-0.4'-Wood 0.4-3.8'-Sand, VFG to FG, mod silt, saturated, gray, low density	0.27
						60				
						68				

Not to Scale

TD = 60'

CD-9B
Screen Interval - 58-68'
Native = 48' BLS
Sand = None
Bentonite Pellets @ 44' BLS
3/4" Casing = 42' BLS

CD-9A
Screen - (26-36')
Native @ 24'
Sand - None
Bentonite - 21' BLS
- No surface Casing -

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow + Lewis
Project Name: Castex Development
Project Location: Merman tau, LA

Project No.: 1009.475
Date: 4-27-22
Page 1 of 2

645 - RL left Royne, LA (Truck 78)
7:30 - Arrived onsite
- Charles Trahan + Lance Cooper w/ ERM both onsite
- Jay + Mason w/ ICON onsite
7:50 - Katie w/ ICON onsite
- ICON topped off CD-5C (90-95') well w/ a couple gallons of Portland/bentonite slurry
8:10 - ICON tracking rig to next location.
8:45 - ICON set up on location. CD-9
Field Coordinates: 30.18522887, -92.61781345
- ICON rigging up to run EC. /Conductivity Probe
10:30 - ICON attempted to set up EC probe; had issues w/ wiring during set-up
- Rigging down EC probe tooling and setting up to conduct H.P.T. in the same location.
1130 - Completed rigging up HPT
Break for Lunch

On-Site
Ryan L - HET
Katie Cummins
Jay Culpepper - ICON
Mason J
Charles Trahan - ERM
Lance Cooper
- Derek P - ICON

Derek P. w/ ICON arrived onsite @ 1100

1230 - Back from lunch
- ICON continuing to rig up HPT (Hydraulic Profiling Tool)
1245 - ICON started pushing HPT
1325 - Completed HPT installation; total depth of approx. 95' BLS
- See photos for details; data obtained on USB drive.
1330 - ICON started pulling HPT pipe string.
- pulled all HPT pipe; ICON then went back into the hole immediately w/ 3/4" tremme pipe; only got tremme pipe down to approx. 75' BLS - ~~[illegible]~~; ICON will grout like that
1405 - ICON grouted hole w/ approx. gallons of portland bentonite slurry by gravity feed method through 3/4" PVC tremme pipe until grout to surface.

1415 - ICON moved rig over slightly; began installing CD-9 soil boring. Geoprobe 7822 DT w/ 4' x 2.25" Dual Tube
ERM collecting split samples.

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow + Lewis
Project Name: Castex Development
Project Location: Mermentau, LA

Project No.: 1009.A75
Date: 4-27-22
Page 2 of 2

16:00 - ICON completed drilling of CD-9 to 50' BLS
- Still logging cores
16:40 - Mason + Jay w/ ICON left site
17:50 - Completed logging/sampling CD-9 from 0-50' BLS; 2.0' pushes from 16' to 50'
- EHM collecting split samples:
Sample Intervals: (2-4') (6-8') (10-12') (22-24) (48-50')
(EHM no split)

1805 - Completed work for the day
Left site.

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow + Lewis
Project Name: Castex Development
Project Location: Mermentau, LA

Project No.: 1009.475
Date: 4-28-22
Page 1 of 2

On-Site
Ryan L - HET
Charles Trahan - ERM
Katie Cummins
Jay Calpepper
Mason J.
] ICON

645 - RL left Bayne, LA (Truck 28)
730 - Arrived onsite; Charles Trahan (ERM) + mason Jay (ICON) onsite
748 - Katie Cummins arrived onsite
800 - ICON resumed drilling CD-9 soil boring; @ 50' BLS
835 - ICON got to 60' BLS; when they tried to retrieve had approx. 12 feet of material in hole - they called it "flowing sand"
- Log/sample 50-60' BLS for CD-9
920 - Completed logging/sampling
- Sample Intervals: (56-58')(58-60') - ICON not running (48-50')
sample from 4-27-22
- ERM collecting split samples
9:30 - ICON pulling 2¼" sampling barrels/tooling
9:50 - Completed pulling pipe; ICON using ≈ 2½" solid stem augers to auger down to 30" BLS
- Rig's hydraulic fluid overheating; ICON stopping to allow time to cool off
1110 - Rig still overheated
* Break for lunch
1200 - ICON started rig back up; pulling augers; stacking drilling/auger cuttings next to borehole!
1235 - Finished pulling auger; went back into same borehole w/ 3¼" barrels to set as outer casing;
- 3¼" barrels down to 50' BLS
1300 - Started running 2¼" barrels down the hole inside of 3¼" casing.
- drilled down to 68' BLS
1310 - ICON set well - 10' slotted screen w/ ¾" PVC riser; poured approx. 2 gallons of freshwater inside of 2¼" barrels.
began pulling 2¼" pipe.
1330 - 2¼" pipe pulled; pulled 3¼" casing up ≈ 2 feet; measured depth of native material; began pouring bentonite pellets.
Native material - 48' BLS
Pellets - 44' BLS
3¼" Casing @ 42' BLS

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow & Lewis
Project Name: Castex Development
Project Location: Mermentau, LA

Project No.: 1009.475
Date: 4-28-22
Page 2 of 2

1350 - Completed setting CD-9B (58-68') monitor well
1400 - Move over slightly to set CD-9A (26-36') monitor well
1415 - ICON ran 10' slotted screen w/ filter sock (secured to screen/riser w/ black electrical tape) and 3/4" PVC riser downhole.
- Pulled all 2'4" barrels before placing sand or bentonite pellets.
- Native material @ 24' BLS → not placing any sand, only bentonite pellets. to 21' BLS

1430 - Completed setting CD-9A (26-36')
Details → Screen @ (26-36') 0.01" slotted screen w/ Filter sock
Native Material @ 24' BLS
Sand → No Sand
Bentonite Pellets → 21' BLS
No surface Casing.
- Wait to let bentonite pellets hydrate (around 1545)

* TO NOTE: ICON Geoprobe Rod leaking small amount of hydraulic fluid. ICON continuing to drill / set wells and sample.

1545 - ICON set up on CD-9B (58-68') to grout
- grouting by gravity feed method through 3/4" PVC tremie pipe
- grouted w/ approx. 24 gallons of portland / bentonite slurry until grout to surface.

1625 - Moved to CD-9A to grout. ICON ran 3/4" PVC tremie pipe down approx. 5' feet the borehole - hole collapsed between top of pellets and surface;
- grouted through tremie pipe w/ approx. 4 gallons of grout until grout to surface.

1635 - Completed grouting; loaded up equipment to truck. Geoprobe to next location
1700 Left Site

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow + Lewis
Project Name: Castex Development
Project Location: Mermentau, LA

Project No.: 1009.A75
Date: 4-29-22
Page 1 of 1

On-Site
Ryan L. - HET
Charles Tahan - ERM
Katie Cummins
Jay Culpepper
Mason J } - ICON

7:30 - Arrival onsite @ Castex Development (RL - Truck 28)
- Jay Culpepper, Mason J w/ ICON + Charles Tahan w/ ERM onsite
7:45 - Katie Cummins onsite
8:00 - ICON set up on CD-10 location; ICON plans to run EC probe today
- ICON setting up / calibrating machinery to run EC probe
CD-10 Field Coordinates: 30.18342319, -92.60567686
- CD-10 location is situated just off of Castex landing road, on the head land between telephone posts running along Castex landing road and crawfish pond levee.
8:55 - ICON started pushing EC probe
- pushed probe to approx. 14' BLS and hit refusal; stood rig up + not able to go deeper; pulled pipe and moved over about 2' feet
9:10 - Began re-installing EC probe
- Got down to 12' BLS - EC probe cable/wire malfunctioning;
- pull EC probe ~~and attempt to~~; changed broken/malfunctioning parts
9:45 - ICON EC probe system recalibrated
- Begin pushing EC probe.
10:13 - Completed pushing EC probe - maximum EC of 186 mS/cm @ 17' BLS
Total Depth of 93.4' BLS
- Began pulling EC probe tooling
10:20 - Piping out of borehole; ICON ran 3/4" PVC tremme pipe back into hole immediately - got tremme pipe down to approx. 50' BLS
- ICON decided to grout from that depth; not drilling back to TD to grout.
- Grouted 93' EC probe hole w/ approx. 12 gallons of portland slurry
- Grouted 12' + 14' EC probe abandoned boreholes w/ ≈ 2 gallons per borehole
- Started all on gravity feed through 3/4" PVC tremme pipe till grout to surface.
11:00 - ICON completed grouting/decoming equipment; tracked rig back to meeting area near CD-5

11:30 - Left Site

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants
91 Apollo Road
Scott, Louisiana 70583
(337) 261-1963 Fax (337) 261-1953

BORING No. CD-11

PROJECT NAME: Castex Development
PROJECT NUMBER: 1009.475
LOCATION: Mermentau, LA
DRILLING METHOD: Geoprobe 7822 DT
SAMPLING METHOD: 4' X 2.25" Dual Tube
GROUND ELEVATION: —
TOP OF CASING: —
LOGGED BY: RSL
REMARKS: Field Coordinates: 30.189266 01, -92.64413244

DATE STARTED: 5-2-22
DATE COMPLETED: 5-3-22
CASING TYPE/DIAMETER: 3/4" PVC
SCREEN TYPE/SLOT: 0.010" Slotted Screen w/ Filter sock
SAND PACK TYPE: —
GROUT TYPE/QUANTITY: Portland / Bentonite slurry
DEPTH TO WATER:
GROUNDWATER ELEVATION:

2.0' Pushes from 16' BLS to T.D.

See Last Page For well details

REC.	PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE ID	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	E.C.
3.2'	0		1500			0			0-0.8'- Silty clay, grayish brown, low moisture, mod density, crumbly	0.27
			1505	2.4' mostly		2			0.8'-3.2'- Clay, brown to brownish gray, low moisture, high density to stiff w/ red mottling	1.42
3.8'			1510	4-6' Grey Silt		4			0-1.3'- Clay, grayish-yellow brown, low moisture, stiff	1.47
			1515			6			1.3-3.8'- Silt, mod clay, low moisture, high density, clay lens @ (3.7-3.8') Mn staining, gray and yellow-brown	0.46
4.0'			1520			8			0-4.0'- Clay brownish gray (0-0.9') red-brown (0.9-2.3') lite gray (2.3-4.0') w/ red/brown mottling throughout, low moisture high density to stiff, silt lens (0-0.5'), Ca @ 0.7', Mn staining throughout	2.14
			1525	10-12' Fine Silt		10				2.76
3.3'			1530			12			0-0.3- Clay, gray + yellow brown, low moisture, high density	
			1535			14			0.3-0.9- Silt, high clay, yellow brown to brown, damp, low moisture	1.64
2.7			1540			16			0.9-2.3'- Clay, minor silt (1.4-1.7'), yellow brown + gray w/ orange mottling, low moisture, high density, Mn	2.29
						18			0-2.7'- Clay, light brownish gray w/ red/brown mottling, low moisture, high density, silt lens @ (0.5') Mn + Fe stainis throughout	1.77
2.5'			1545			20			0-2.5'- Clay, minor silt, light brownish gray, low moisture, mod to high density, silt lenses @ (0.3, 0.7', 0.9' (1.4-1.5'), 1.8', + 2.0') Red brown / black mottling (0-1.8'), Fe + Mn staining	2.00
3.5'			1610			22			0-2.5'- Clay, gray / brownish gray w/ red brown mottling, low moisture, high density, silty lense @ (0.2-0.3'), (0.6'), 1.1', Ca nodules (2.1-2.4') 2.5-3.5'- Silt, mod clay, grayish light brown, damp to low moisture low density	2.12
2.7'			1615			24			0-2.7'- Silt, minor clay, brown, mod to high moisture, low density, shell fragments.	0.94
2.5'			1620			26			0-2.5'- Silt, minor clay, gray and brown to reddish brown, moderate moisture, low density, shell frags. @ (0.5-1.0')	0.80
2.3'			1630			28			0-2.3'- Clay, gray w/ yellow/brown + red-brown mottling, low moisture, high density, silt lens (0.3-0.4'), (1.0') + (1.3')	1.66

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants
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Scott, Louisiana 70583
(337) 261-1963 Fax (337) 261-1953

BORING No. CD-11

PROJECT NAME: Castex Development
PROJECT NUMBER: 1009.475
LOCATION: Mermentau, LA
DRILLING METHOD: Geoprobe 7822 DT
SAMPLING METHOD: 4' x 2.25" Dual Tube
GROUND ELEVATION: –
TOP OF CASING: –
LOGGED BY: RSL
REMARKS: Field Coordinates: 30.18926601, -92.6114 13244

DATE STARTED: 5-2-22
DATE COMPLETED: 5-3-22
CASING TYPE/DIAMETER: 3/4" PVC
SCREEN TYPE/SLOT: 0.010" Slotted screen w/ Filter sock
SAND PACK TYPE: –
GROUT TYPE/QUANTITY: Portland / Bentonite slurry
DEPTH TO WATER:
GROUNDWATER ELEVATION:

REC	PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE ID	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	E.C.
3.2'			1635	28-30 w. Silt		28			0-1.0' - Clay, gray & brown, low moisture, high density, silt lens @ (0.4-0.7')	
									1.0-3.2' - Silt, brownish gray, saturated, low density	0.77
						30			minor VFG Sand	
2.8'			1650						0-2.8' - Silt, minor clay (0-1.7'), high moisture to saturated, low density, gray	0.88
						32				
3.5'			1655						0-3.5' - Silt, gray, saturated, low density	0.74
						34				
3.7'			1715						0-3.7' - Silt, minor clay (0-2.0'), gray to brownish gray, high moisture, low density	0.61
						36				
3.3'			1725						0-0.4' - Silt as above 0.4-2.9' - Clay, high silt, low moisture, low density brownish gray 2.9-3.3' - Clay, low silt, gray, low moisture, low to mod. density	0.93
						38				
2.8'			1730						0-2.8' - Clay, minor to mod. silt, gray, low moisture, low density	1.23
5-2-22 / 5-3-22						40				
4.0'			840						0-4.0' - Silt, minor VFG Sand, brown / grayish brown, high moisture to saturated, low density	0.53
						42				
2.8'			845						0-1.2' - Clay and silt, brownish gray, low moisture, low density 1.2-2.4 Clay, brownish gray to gray, low moisture, low density 2.4-2.8' - Silt, gray, high moisture, low density	0.92
						44				
3.9'			850						0-3.9' - Clay, minor silt, gray / brownish gray, low moisture, low to mod density, wet silt @ bottom	1.54
						46				
4.0'			915						0-4.0' - Silt, minor clay, grayish brown, saturated low density silty clay lenses @ (1.4-1.8') + (3.0-3.5')	0.58
						48				

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Environmental Consultants
91 Apollo Road
Scott, Louisiana 70583
(337) 261-1963 Fax (337) 261-1953

BORING No. CD-11

PROJECT NAME: Caster Development
PROJECT NUMBER: 1009.475
LOCATION: Mermentau, LA
DRILLING METHOD: Geoprobe 7822 DT
SAMPLING METHOD: 4' x 2.25" Dual Tube
GROUND ELEVATION: —
TOP OF CASING: —
LOGGED BY: RJL
REMARKS: Field Coordinates: 30.18926601, -92.61413244

DATE STARTED: 5-2-22
DATE COMPLETED: 5-3-22
CASING TYPE/DIAMETER: 3/4" PVC
SCREEN TYPE/SLOT: 0.010" Slotted Screen w/ Filter sock
SAND PACK TYPE: —
GROUT TYPE/QUANTITY: Portland/Bentonite slurry
DEPTH TO WATER:
GROUNDWATER ELEVATION:

PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE ID	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	E.C.
3.7'		920			48			0-3.7'- Silt, brownish gray, high moisture to saturated, low density	0.53
3.0'		950			50			0-0.7'- Clay high silt, brown, low moisture, low density 0.7-3.0'- Silt, very fine silt, saturated, low density	0.53
2.9'		955			52			0-0.8'- Silt, mod clay, grayish brown, high moisture low density 0.8-1.7'- Clay, mod silt, brownish gray, low moisture low to mod density 1.7-2.9'- Clay, gray, low moisture, mod. to high density	1.00
4.0'		1000			54			0-4.0'- Clay dark (to dark gray) gray, low moisture, mod density, wood @ 2.3'	1.13
3.5'		1005			56			0-3.5'- Clay, mod silt, gray to dark gray, low moisture, mod. density, mod silt throughout sect silt lenses @ (1.4-1.7') (2.1-2.4') (2.9-3.0')	0.78
4.0'		1010	58-60' Extra Split	X	58			0-4.0'- Clay, dark gray, low moisture, mod. density, wood @ (2.9') ~~[illegible]~~ Black organics throughout	1.20
3.9'		1045			60			0-2.2'- Clay, mod. silt, mod. moisture, low density, gray 2.2-3.9'- Silt, gray, mod. moisture, low density, clay lens @ (3-3.4')	0.84
4.0'		1050			62			0-4.0'- Silt, very fine silt @ top, brownish gray, to gray, high moisture to saturated, low density	0.52
3.9'		1055	Extra Split	X	64			0-3.9'- Silt, gray, saturated, low density	0.46
					66				
					70				

Not to Scale

CD-11A	CD-11B
Screen (30-35') BLS	Screen - (60-70') BLS
Native (28') BLS	Native - 55' BLS
Bentonite (25') BLS	Bentonite - 49' BLS

Casing @ 49' BLS

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Listrow + Lewis
Project Name: Castex Development
Project Location: Mermentau, LA

Project No.: 1009.A75
Date: 5-2-22
Page 1 of 1

8:50 - RL left HET office (Truck 28)
- Stopped for drinks and food
9:50 - Arrived onsite @ Castex Development
- Charles Trahan w/ ERM onsite
- Jay Culpepper + Mason J. onsite
1005 - Katie Cummins arrives onsite; heavy rains over the weekend onsite and CD-10 location has standing water
- ICON scouting other boring locations to see site conditions
1040 - ICON loading up rig/equipment to move to northern portion of the property to set up on different location.

1120 - Moved to turn around / form well pad area in northern portion of the property near CD-2.
- ICON unloading rig / equipment to set up to conduct drilling
1200 - ICON set up on CD-11 location; will rig up to install EC probe first then conduct soil sampling
1225 - Break for lunch.
1325 - ICON set up on CD-11 to set up to push EC probe
CD-11 Field Coordinates: 30.18926601, -92.61413244

1340 - ICON began installing EC probe
1344 - Issues w/ Probe; got down to approx. 28' BLS and lost signal
- Pulled EC probe boring pipe - ran 3/4" tremme pipe downhole
- Moved geoprobe over and started setting up to install soil boring
1415 - ICON began installing CD-11 Soil boring
1455 - ICON drilled down to 40' BLS; Begin logging / sampling soil cores.
1600 - Mason J + Jay C. w/ ICON left site
1735 - Completed logging; ERM collecting split samples - See CD-11 Boring log for details
1740 - Completed work; left Site.

On-Site
Ryan L - HET
Charles Trahan - ERM
Jay Culpepper
Mason J.
Katie Cummins
ICON

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow & Lewis
Project Name: Castex Development
Project Location: Mermentau, LA

Project No.: 1009.A75
Date: 5-3-22
Page 1 of 2

645 - RL left Rayne, LA in Truck 28
730 - Arrived onsite @ Castex Development
- Jay Culpepper w/ ICON onsite
- Charles Trahan w/ ERM onsite
740 - Mason J. w/ ICON onsite
752 - ICON ~~started~~ resumed installing CD-11 soil borings @ 40' BLS
803 - Katie Cummins w/ ICON onsite
815 - ICON drilled down to 50' BLS; log & sample 40-50' before continuing deeper.
925 - Logged 40-50' BLS; ICON continuing to drill deeper for soil sample.
945 - ICON collected soil cores from 50-60'
- Log & sample cores.
1030 - ICON continuing to drill deeper - drilled to 66' BLS
1120 - Completed drilling/soil sampling down to 66' BLS
- Finished logging/splitting samples.
- ERM collecting all split samples → See Boring Log for details
1130 - Break for lunch.
1220 - ICON resumed work - Pulling out 2¼" sampling barrels to set CD-11 monitor wells.
1310 - Completed auger w/ 2¼" solid stem augers down to approx. 38' BLS; pull augers out of hole. *To note - soil cuttings from auger thrown on ground next to borehole
1330 - ICON went back into same hole w/ 3¼" barrels to 54' BLS; went down w/ 2¼" barrels inside of 3¼" casing to 70' BLS
1400 - ICON @ 70' BLS - started running well material downhole; 3/4" PVC riser w/ 0.01" slotted PVC screen w/ filter sock (filter sock attached/secured to riser w/ black electrical tape).
CD-11B (60-70') Well Details:
Screen Interval: (60-70') BLS
Native Material - 55' BLS
Sand - None
Bentonite Pellets: 51' BLS
Casing: 49' BLS
1410 - pulled up 3¼" casing after running down well material - about 30'

On-Site
Ryan L - MET
Charles Trahan - ERM
Jay Culpepper
Mason J
Katie Cummins
} ICON

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow & Lewis
Project Name: Castex Development
Project Location: Mermentau, LA

Project No.: 1009.A75
Date: 5-3-22
Page 2 of 2

1430 - ICON completed setting CD-11B (60-70') well -
- deconing pipe/equipment
- ICON moved rig over slightly to set CD-11 A (30-35') monitor well
1442 - ICON started pushing 2¼" barrels; ~~[illegible]~~ - setting
* setting well in abandoned 28' BLS EC probe borehole for 5/2/22; hole was not grouted after being abandoned
1455 - At TD - run well material downhole; start pulling 2¼" pipe.
- pulled all pipe - ~~[illegible]~~ borehole annulus open to surface.
1505 - Completed setting CD-11 A (30-35')
Screen - (30-35') BLS
Native Material - 28' BLS - 0.006" slotted PVC Screen w/ filter sand & ¾" PVC riser
Sand - None
Bentonite Pellets - 25' BLS
- Pulled all surface casing.

1510 - ICON deconing pipe; wait for bentonite pellets to set before grouting.
1635 - ICON set up on CD-11B to grout; ran ¾" PVC tremme pipe through 3¼" barrels to top of bentonite pellets, - grouted by gravity feed method w/ approx. 28 gallons of portland/bentonite slurry while pulling 3¼" barrels as needed. - grouted to surface
1725 - Completed grouting CD-11B; will grout CD-11A in the morning
1740 - left site.

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants
91 Apollo Road
Scott, Louisiana 70583
(337) 261-1963 Fax (337) 261-1953

BORING No. CD-10

PROJECT NAME: Castex Development
PROJECT NUMBER: 1009.475
LOCATION: Mermentau, LA
DRILLING METHOD: Geoprobe 7822 DT
SAMPLING METHOD: 4'x2.25" Dual Tube
GROUND ELEVATION: —
TOP OF CASING: —
LOGGED BY: RTF
REMARKS: Field Coordinates: 30.18333296, -92.62563696

DATE STARTED: 5-4-22
DATE COMPLETED: 5-4-22
CASING TYPE/DIAMETER: 3/4" PVC
SCREEN TYPE/SLOT: 0.010" slotted screen w/ Filter socks
SAND PACK TYPE: —
GROUT TYPE/QUANTITY: Portland/Bentonite Slurry
DEPTH TO WATER:
GROUNDWATER ELEVATION:

2.0' probes below 12' BLS

REC.	PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE ID	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	E.C.
3.2'			1000			0			0-1.5' - Silt, mod clay, yellow brown & brown, low moisture, mod density, Sat crumbly. Fe staining	0.06
			1005	2-4' Bar Na split		2			1.5-3.2' - Clay, minor to mod silt, brownish gray (1.5-2.3') to yellow brown (2.3-3.2') w/ Fe staining, low moisture, mod to high density, Ca nodules	0.50
						4			0-1.3' - Clay, minor silt, light gray + yellowbrown, low moisture, high density	1.18
3.6'			1015			6			1.3-2.7' - Silt, light gray to brownish gray, low moisture, mod density, crumbly	
			1020	6-8' Bar split					2.7-3.2' - Clay, brownish gray + red brown mottled, low density, stiff	2.25
						8			3.2-3.6' - Silt, lite reddish brown, low moisture, low density	
3.9'			1025	8-10' Bar split					0-0.4' - Silt as above	2.45
			1030			10			0.4-3.0' - Clay, yellow brownish gray w/ red mottling, low moisture, high density to stiff, Fe + Mn staining, silt lens @ (2.1-2.3')	0.86
						12			3.0-3.9' - Silt light reddish brown, mod moisture, low density	
2.0'			1045						0-0.3' - Silt as above	
									0.3'-1.4' - Clay silty clay @ (0.5-0.8' - low density), reddish brown to grayish brown w/ depth, low moisture, high density, Mn, staining	1.34
						14			1.4'-2.0' - Silt, reddish brown, high moisture, low density	
2.8'			1050						0-2.8' - Clay, brownish light gray w/ redbrown mottling, low moisture, high density, Mn staining. silt lens @ 0.3'	1.73
						16			0-2.1' - Clay, yellow-brown + light gray w/ red-brow mottling, low moisture, high density	
2.9'			1105						2.1-2.9' - Silt, red brown, mod to high moisture, low density, mod clay (2.1-2.4')	2.14
						18			0-2.0' - Silt, mod clay, light brown / reddish brown, low moisture, low density, 1" clayey lenses throughout	
2.5'			1115						2.0-2.5 - Clay, grayish brown, low moisture, high density, Fe staining throughout	1.21
						20			0-2.4' - Clay, grayish brown, w/ Fe/Mn staining, low moisture, high density, white shell hash (0.4-0.8'), silt lenses @ (1.0') (1.8-1.9')	
3.0'			1130						2.4-3.0' - Silt, high clay, gray + red brown, low moistre, low density, shells @ (2.6')	1.72
						22			(0-0.5'/1.1'-1.5') - Clay, minor to mod silt, red brown, low moisture, mod to high density	
2.1'			1140						(0.5-1.1'/1.5-2.0') - Silt, mod clay, red brown, low moisture, low density	1.03
						24			0-0.3' - Silt, as above	
3.0'			1150						0.3-3.0' - Clay, redbrown and grayish brown, low moisture, high density (stiff, silt lens @ (1.9-2.1'), Mn staining	1.42
						26				

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BORING No. CD-10

PROJECT NAME: Castex Development
PROJECT NUMBER: 1009.A75
LOCATION: Mermentau, LA
DRILLING METHOD: Geoprobe 7822 DT
SAMPLING METHOD: 4'x2.25" Dual Tube
GROUND ELEVATION: –
TOP OF CASING:
LOGGED BY: RJL
REMARKS: Field Coordinates: 30.18333296, -92.62563696

DATE STARTED: 5-4-22
DATE COMPLETED: 5-4-22
CASING TYPE/DIAMETER: 3/4" PVC
SCREEN TYPE/SLOT: 0.010" Slotted screen w/ Filter sock
SAND PACK TYPE: —
GROUT TYPE/QUANTITY: Portland / Bentonite Slurry
DEPTH TO WATER:
GROUNDWATER ELEVATION:

REC.	PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE ID	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	E.C.
3.4'			1200			26			0-3.4'- Clay, red brown + gray, low moisture, stiff, Caliches (0.8-1.2') + (2.3-2.5')	1.76
2.6'			1315	28'-30' Error Split		28			0-1.4'- Silt, high clay, grayish/reddish brown, mod. moisture, low density; 1.4-2.6'- Silt, red brown, saturated, low density	1.30
3.4'			1330			30			0-3.4'- Silt, red brown to grayish brown, saturated, low density; clay lens @ (0.7-0.9'), (1.8-1.9')	0.62
3.5'			1340			32			0-2.2'- Silt - as above; 2.2-3.5 - Clay, mod silt, red brown to grayish brown, low moisture, low to mod density	0.49
3.2'			1350			34			0-3.2'- Silt, brown to grayish brown, saturated, low density; mod ~~silt~~ clay (1-1.6')	0.30
3.5'			1400			36			0-3.5'- Silt, minor VFG sand, saturated, low density, brown. minor clay (3.0-3.5')	0.40
3.7'			1410			38			0-3.7'- Silt, brown, saturated, low density, clay lens @ (0.8-0.9'), (2.0-2.6') + (3.5-3.7') (brown, low moisture low density	0.37
3.6'			1420			40			0-1.9'- Silt, brown, saturated, low density; 1.9-3.6'- clay, gray/dark gray + reddish brown, low moisture, low to mod. density	1.34
3.2'			1430			42			0-3.2'- Clay, dark gray and red brown, low moisture, low to mod density	1.41
3.0'			1440			44			0-3.0'- clay, as above	1.50
						46				

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91 Apollo Road
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BORING No. CD-10

PROJECT NAME: Castex Development
PROJECT NUMBER: 1009.A75
LOCATION: Mermentau, LA
DRILLING METHOD: Geoprobe 7822 DT
SAMPLING METHOD: 4 x 4.25" Dual Tube
GROUND ELEVATION: –
TOP OF CASING: –
LOGGED BY: RSL
REMARKS: Field Coordinates: 30.18333296, -92.62563696

DATE STARTED: 5-4-22
DATE COMPLETED: 5-4-22
CASING TYPE/DIAMETER: 3/4" PVC
SCREEN TYPE/SLOT: 0.010" Slotted screen w/ Filter sock
SAND PACK TYPE: –
GROUT TYPE/QUANTITY: Portland / Bentonite Slurry
DEPTH TO WATER:
GROUNDWATER ELEVATION:

REC	PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE ID	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	E.C.
2.2'			1450			46			0-2.2'- Clay, mod silt @ (0.7-0.8), dark gray and red brown, low moisture, mod. to high density	1.59
2.6'			1500			48			0-0.9- Clay as above 0.9-2.6'- Silt, high clay, mod moisture, low density, red brown + dark gray	0.73
2.6'			1510			50			0-0.9-Clay, gray, low moisture, high density, silt @ top 0.9-1.6'- Silt, high clay, mod. moisture, low density 1.6-2.6'- Clay, minor to not silt in lenses, gray, low moisture, high density	0.69
2.9'			1515	52.54' Ebm silt		52			0-1.2'- Clay as above 1.2-2.9'- Silt, brown (1.2-1.9') and gray / grayish gray (1.9-2.9') saturated (1.2-1.9') to low moisture (1.9-2.9'), low density, clay lens (2.0-2.3')	0.42
1.9'			1550			54			0-1.9'- Silt, light brown / yellow brown, dry, low density	0.06
2.4'			1555			56			0-0.7'- Silt, as above 0.7-2.4'- Silt, light brown to brown, dry, wet @ (0.8-1.0') low density, clay (lenses) (0.7' + 1.0')	0.10
1.8'			1600			58			0-1.8'- Silt, brown to grayish brown, dry, low density	0.06
2.7'			1605	60.62' Ebm silt		60			0-2.7'- Silt - brown, damp (0-0.6') to saturated (0.6-2.7') low density.	0.45
						62				
						64				
						65				

CD-10B
(55-65') BLS
Native @ 51' BLS
NO SAND
Bentonite @ 48' BLS

CD-10A
(30-40') BLS
Native @ 28' BLS
NO SAND
Bentonite @ 25' BLS

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

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Project Name: Castex Development
Project Location: Mermentau, LA

Project No.: 1009.A75
Date: 5-4-22
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0650 - RL Left Rayne, LA in Truck 28
730 - Arrived onsite @ Castex Development
- Charles Trahan w/ ERM & Mason J and Jay Culpepper w/ ICON onsite.
735 - Katie Cummins w/ ICON arrived onsite
- ICON grouting CD-11A borehole annulus and topping off CD-11B well
- grouted CD-11A by gravity feed method through 3/4" PVC tremme pipe until grout to surface. Used approx. 4 gallons of bentonite / portland slurry on CD-11A and topped off CD-11B w/ approx 2 gallons of grout.
750 - ICON loaded up equipment; tracked rig back to muster area; ICON loading up rig and moving to CD-10 location to install soil borings / monitor wells
925 - ICON set up on CD-10 to begin soil sampling
940 - ICON started installation of CD-10 soil boring
- pushed to 20' BLS, then brought cores; continued to 50' BLS
1105 - Greg Miller & Jason Sills w/ ICON onsite; near CD-10 / CD-5 area
- ICON, ERM & HET continuing to log cores.
1130 - Jason Sills & Greg Miller left area; went to CD-6 location to observe area
1210 - Break for lunch
- left site for lunch in Jennings, LA
1230 - Back onsite
- Greg Miller / Jason Sills w/ ICON moved to northern portion of the property.
- Noted that they found 2 registered / unregistered water wells nearby
1300 - Resumed logging / sampling CD-10
1500 - Logged to 50' BLS; ICON pushing another 4' BLS
1540 - ICON pushing another 4' BLS
- Continuing logging / sampling
1557 - ICON pushing another 4' BLS
1625 - Completed logging / sampling - TD = 64' BLS; will set wells in the morning.
- ERM collecting split samples - See Boring Log for details
1650 - Left Site

On-Site
Ryan L. - HET
Charles Trahan - ERM
Mason J
Jay Culpepper
Katie Cummins
ICON

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow + Lewis
Project Name: Castex Development
Project Location: Mermentau, LA

Project No.: 1009.475
Date: 5-5-22
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On-Site
Ryan L. - HET
Charles Trahan - ERM
Jay Culpepper
Mason J.] ICON
Katie Cummins

645 - RL left Rayne, LA (Truck 28)
725 - Arrived onsite
- Charles Trahan w/ ERM and Jay Culpepper, Mason J. w/ ICON onsite
745 - Katie Cummins w/ ICON onsite
750 - ICON pulling 2¼" pipe left in borehole CD-10 soil boring overnight
- pulling pipe then going back into same hole w/ over-sized head to 48' BLS; pulled 2¼" pipes w/ over-sized head and went into same borehole w/ 3¼" outer casing to 48' BLS.
- Went through 3¼" casing w/ 2¼" down to approx. 65' BLS to set well
900 - Ran well material down hole; 3/4" PVC riser and 0.006" well screen.
- pulled 2¼" pipe after running well material
910 - Completed pulling 2¼" pipe
- measuring well screen / native material; adding bentonite pellets
930 - Started pulling 3¼" piping; bentonite pellets bridged in well - pulled up well approx. 1.5-2.0' feet;
- ICON went into 3¼" casing w/ lightweight inner rods and knocked out plug / bridge.
- Pushed well back down hole as much as possible.
940 - Resumed pulling 3¼" casing; poured pellets down hole again
- well bridged again
1020 - Abandoned hole; pulling 3¼" casing and well; pulled all PVC riser and well screen
1050 - Ran 3/4" PVC tremme pipe back down hole to grout - ran tremme down to 55' BLS
- grouted by gravity feed method through 3/4" PVC tremme w/ approx. 20 gallons of portland/bentonite slurry until grout to surface; will top off later
1130 - Completed grouting
- HET (RL) break to go pick up lunch; ICON will begin auguring down to set CD-10 monitor wells.

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Project Location: Mermentau, LA

Project No.: 1009.475
Date: 5-5-22
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12:10 - RL back on site; ICON eating lunch
12:20 - ICON resumed augering @ (2.5" solid stem auger)
1250 - Completed augering; augered down to 38' BLS
- Started going back into same borehole w/ 3¼" casing; pushed 3¼" casing down to 48' BLS
- Ran 2¼" barrels through 3¼" casing down to 65' BLS
1315 - 2¼" pipe @ 65' BLS; ICON ran well material downhole; started pulling 2¼" pipe;
- pulled pipe - poured bentonite pellets downhole
1345 - CD-10B (55-65') BLS well details:
Screen - (55-65') - 0.006" Slotted screen w/ filter sock
Native @ 51' BLS
NO SAND > 3/4" PVC riser
Bentonite pellets @ 48' BLS
Casing @ 45' BLS
1355 - Moved rig over slightly; Began drilling down w/ 2¼" pipe to set CD-10A monitor well
1410 - Ran well material downhole; pulled all 2¼" barrels and borehole is open to surface.
- CD-10A (30-40') well Details
Screen - (30-40') BLS → 0.006" Slotted screen w/ filter sock
Native - 28' BLS
NO SAND 3/4" PVC Riser
Bentonite Pellets: 25' BLS
- No Surface Casing
1425 - Completed CD-11A - wait to grout wells.
1435 - HET + ERM went ~~looked~~ look for rig supply wells in E/NE portion of property.
located 1 well but could not locate other
1510 - Back @ Master area
1535 - Set up on CD-10B to grout; ICON ran 3/4" PVC tremme pipe through 3¼" barrels and began pouring portland / bentonite slurry through tremme
1625 - Completed grouting - grouted by gravity feed method w/ approx. 28 gallons for CD-10B and 4 gallons for CD-10A.
1640 - Done w/ work; left site

Pg 1 of 2

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.

Groundwater Field Parameter Data
Project Name: Castex
Project No. 1009.475
Sampled By: Icon - ERM Split

Rev: 2/

No check valve being used to assist parastaltic pump WL to low to lift water so 1543 bailer lifted off TD ~5 gal

Well# / Size 3/4'	Time	Temp. °C	DO%	DO mg/l	Specific Conductivity mS/cm	Conductivity ~~mS/cm~~ µS/cm	pH SU	~~pH~~ MV TDS ppm	ORP MV	Turbidity NTU	Vol. Purged
CD-5C (90-95)	1536	Begin	purge	by low	flow,	check valve	attached	to Bottom	of	1/4 x 3/4 bailer	
Date	Icon 1545	32.5	—	—	—	3090	7.49	2165	85	—	Initial
5/9/22	ERM 1545	30.1	—	—	—	3012	7.60	2199	-12.3	—	
Total Depth	1550 ~~1550~~ Icon	27.3	—	—	—	3072	7.56	2165	78	—	.5 gal
96.61	ERM 1550	29.0	—	—	—	2957	7.73	2151	-71	—	
Water Level	1553	well dry	~ .95 gal								
63.00	1601	resume									
Volume	Icon 1605	25.6	—	—	—	3399	7.42	2399	29	—	1 gal
.74	ERM 1605	28.0	—	—	—	3201	7.53	2171	-128	—	
Stick Up	1611	well dry	~ 1.3	total	gal						
1.80	1615	resume									
GPS	1620	well dry	~ 1.75	total	gal						
30.183809 92.621714	1640	Resume									
Sample Time	~~ERM~~ Icon 1645	26.4	—	—	—	20.49	7.53	1392	45	—	2 gal
1700	Number of times dried: 9x's dry purge 3x's during sample				Analyses: same as previous wells, Icon collected Dissolved Metals not total.						

BP/Castex-Ltd Adm Apx J-000115

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.

Groundwater Field Parameter Data
Project Name: Castex
Project No. 1009.A75
Sampled By: Icon & Kingsley

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Rev: 2/

Well# / Size 3/4'	Time	Temp. °C	DO%	DO mg/l	Specific Conductivity mS/cm	Conductivity ~~mS~~/cm uS	pH SU	~~pH MV~~ TDS ppm	ORP MV	Turbidity NTU	Vol. Purged
CD-5C (90-95)	ERM 1645	25.3	—		—	2011	7.60	1439	-40	—	—
Date	1648	Stop purge ~2 total gallons. ERM & Icon will label jars &									
5/9/22		start sampling.									
Total Depth	1700	well dry (1) 40mL for ERM BTEX, UPH, Icon BTEX TPH 8/10									
96.61		(1) Liter HCL for ERM EPH & 500mL for Icon chlorides									
Water Level		will allow recharge.									
63.00	1710	resume									
Volume	1717	well dry 500 mL to complete Icon chlorides, (1) 125 mL ERM									
.74		total metals, (1) 125 & (1) 250mL field filtered for ERM & Icon									
Stick Up		Dissolved Metals. 1727 resume									
1.80	1730	complete 500mL for ERM chlorides will refer SW 5/10 to									
GPS		complete RAD 226/228.									
Pg 1	5/10 755	resume sample. 804 well dry data (2) liters Icon RAD (1) Liter ERM RAD									
Sample Time	820	resume	825 dry ~2 liters			835 resume		837 complete sample.			
1700	Number of times dried: 4's dry purge 5's dry sample				Analyses: Same as previous wells, Icon collected Dissolved Metals not total						

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.

Groundwater Field Parameter Data
Project Name: Castex
Project No. 1009.A75
Sampled By: Icon - ERM split

Rev: 2/

Well# / Size 3/4"	Time	Temp. °C	DO%	DO mg/l	~~Specific Conductivity mS/cm~~	Conductivity ~~mS/cm~~ uS	pH SU	~~pH MV~~ TDS ppm	ORP MV	Turbidity NTU	Vol. Purged
CD-9A (26-36)	1403	Begin	purge	w/	low flow	~1 pt	for TD.	1/4 x 3/8	poly	tub.	
Date	1404	24.2	—	—	—	986	6.57	653	24	20	Tubed
5/9/22	1412	24.3	—	—	—	981	6.87	650	48	—	.5 gal
Total Depth	1414	23.0	—	—	—	987	6.93	645	60	—	1.0 gal
36.67	1419	23.2	—	—	—	985	7.05	644	65	—	1.5 gal
Water Level	ERM										
13.15	1404	25.9	—	—	—	918.4	7.58	622.8	-57	—	Tubed
Volume	1412	24.4	—	—	—	932.4	7.43	637.4	-113	—	5
.52	1414	23.2	—	—	—	930.9	7.42	637.8	-120	—	1.0
Stick Up	1419	23.5	—	—	—	934.2	7.41	640.0	-123	—	1.5 gal
1.00	1458	complete	sample.								
GPS											
Sample Time											
1425	Number of times dried: 0				Analyses: same as previous well.						

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.

Groundwater Field Parameter Data
Project Name: Castex
Project No. 1009.A75
Sampled By: Icon, ERM Split.

#1252 complete sample

Rev: 2/

Well# / Size 3/4 in	Time	Temp. °C	~~DO%~~	DO mg/l	~~Specific Conductivity mS/cm~~	Conductivity ~~mS/cm~~ uS/cm	pH SU	TDS ~~pH MV~~ ppm	ORP MV	Turbidity NTU	Vol. Purged
CD9B (58.68)	1054	Begin	purge	by	low flow	meter for TD.	1/4 x 3/8	poly tubing			Approx
Date	1103	28.5	—	—	—	703	6.10	449	70	xxx	Turbid
5/9/22	1109	26.5	—	—	—	712	6.53	456	78	7	.5
Total Depth	1116	26.9	—	—	—	714	6.65	457	72	14	1.0
69.75	1122	26.3	—	—	—	715	6.78	458	73	9	1.5
Water Level	1128	26.4	—	—	—	712	6.87	455	52	11	2.0
28.81	1141	25.9	—	—	—	713	7.07	457	36	xxx	3.0
Volume	1154	26.2	—	—	—	712	7.07	456	44	11	4.0
.90	1208	26.5	—	—	—	715	7.13	458	48	—	5.0
Stick Up	ERM 1109	26.5	—	—	—	712	6.53	456	78	—	
2.25	1122	24.0	—	—	—	696	7.45	468.5	-102	—	
GPS	1141	23.9	—	—	—	695.3	7.43	465.9	-87	—	
30.185213	1154	24.1	—	—	—	696.7	7.54	467.9	-80	—	
-92.617788											
Sample Time	1208	24.3	—	—	—	697	7.69	466.4	-85	—	
1215	Number of times dried: 0				Analyses: Icon - BTEX, TPH 6/10/0, Cl, Anions, Carbonate total metals, RAD 226/228. ERM - BTEX, VOC, EPH, Cl, TDS, total metals, Dissolved metals, Carbonate, Anions RAD 226/228						

2.5 gal

ERM

BP/Castex-Ltd Adm Apx J-000118

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow & Lewis
Project Name: Castex
Project Location: Menendez, LA

Project No.: 1009.475
Date: 5/9/22
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- 815 level HET office w/ Tim.
- 920 arrive onsite to conduct oversite of Tron GW sampling
- 930 Charles Trahan w/ ERM onsite.
- 1000 Kate Cerny w/ Tron onsite.
- 1030 make to begin GW sampling. ERM will be ~~sampling~~ splitting sample and sending them to ALS in Houston for analysis. All well info logged on separate sheets
- 1230 while Tron/ERM are completing RAD samples HET office for lunch.
- 1300 return to site.
- 1730 complete sample of CD9A&B, & all analysis except RAD for CDSC(90-ES) will return on 5/10 to ~~complete~~ complete, & cont pg & sample of other wells. Leave site

* Kate indicated that Geoff Miller w/ Tron was onsite to access (2) ~~Sp~~ Supply wells that were supposed to be sampled, he found that they were silted in no specifics except he couldn't get inc probe below ~13ft ~~&~~ one one & ~60ft on the other one

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.

Groundwater Field Parameter Data
Project Name: Castex
Project No. 1009.175
Sampled By: Icon - ERM split

Rev: 2/

Well# / Size 3/4 in	Time	Temp. °C	DO%	DO mg/l	Specific Conductivity mS/cm	Conductivity ~~mS~~/cm uS	pH SU	~~pH MV~~ TDS ppm	ORP MV	Turbidity NTU	Vol. Purged Approx
CD 8A (20-30)	1407	Begin purge by low flow ~ 1/4 for TD.									
Date	Icon 1409	30.0	—		—	816	7.38	522	75	29	Initial
5/10/22	ERM 1409	26.1	—		—	779.0	7.51	524.8	33	—	
Total Depth	Icon 1413	24.1	—		—	756	7.25	488	11	7	.5 gal
30.91	ERM 1413	24.1	—		—	729.6	7.24	495.8	-104	—	
Water Level	Icon 1419	24.2	—		—	738	7.25	476	14	5	1.25 gal
10.20	ERM 1419	23.5	—		—	714.6	7.16	483.6	-113	—	
Volume	Icon 1422	24.3	—		—	737	7.15	476	-73	5	1.75 gal
.46	ERM 1422	23.7	—		—	717.5	7.87	480.6	-116		
Stick Up	1455	complete sample									
.25											
GPS											
Sample Time											
1430	Number of times dried: 0				Analyses: Icon - BTEX, TPH G/D/O, Cl, TDS, SC, Anions + total metals, Cations, RAD 226/228 ERM - BTEX, VOPH, EPH, Cl, TDS SC, Anions, total & Dissolved Metals, Cations, RAD 226/228						

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.

Groundwater Field Parameter Data
Project Name: Cutoff
Project No. 1009.475
Sampled By: Icon - ERM split

Rev: 2/

Well# / Size	Time	Temp. °C	DO%	DO mg/l	Specific Conductivity mS/cm	Conductivity ~~mS~~/cm us	pH SU	~~pH MV~~ TDS ppm	ORP MV	Turbidity NTU	Vol. Purged
CD813 (52-62)	1040	Begin purge w/ ss check valve attached to 1/4 x 5/8 poly tubing to									Approx
Date		assist low flow pump in lifting water.									
5/10/22	Icon 1042	25.3	—	—	—	1167	7.44	764	91	XXX	Turbid
Total Depth	ERM 1042	26.8	—	—	—	1126	7.36	772.8	15	—	
63.71	1044	well dry ~1 Liter			1105 resume						
Water Level	Icon 1110	24.9	—	—	—	1226	7.49	810	44	XXX	.5 gal
53.79	ERM 1110	25.9	—	—	—	1179	7.50	814.1	-84	—	
Volume	1112	well dry ~ .5 total gallons									
.22	Icon 1135	29.6	—	—	—	1238	7.48	813	66	XXX	.6 gal
Stick Up	ERM 1135	25.9	—	—	—	1179	7.50	814.1	-84		
1.8	1144	well dry (11) 40mL for Icon BTEX, TPH6/O/O & ERM BTEX UPH, 250 mL for ERM EPH									
GPS	1200	resume. 1203 Dry ~1.5 liters to complete ERM EPH.									
30.181205 -92.623372	1218	resume 1224 stop purge 500mL ERM Cl, 125mL ERM total - (1) Liter									
Sample Time		Icon Chlorides. 1244 complete sample (1) ssd collected through (2) filters									
1135	Number of times dried: 2x's dry purge 3x's dry sample				Analyses: Icon - BTEX, TPH6, D, O, Cl, TDS, SC, Anions, cations Dissolved Metals. ERM - BTEX, UPH, EPH, Cl, TDS, SC. Cations/anions total & Dissolved Metals, cations						

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.

Groundwater Field Parameter Data
Project Name: Castex
Project No. 1009.A75
Sampled By: Icon - Erm split

Rev: 2/

Well# / Size 3/4 in	Time	Temp. °C	DO%	DO mg/l	Specific Conductivity mS/cm	Conductivity ~~mS~~ uS/cm	pH SU	~~pH MV~~ TDS ppm	ORP MV	Turbidity NTU	Vol. Purged
CD10A (30-40)	920	Begin	purge	by low	flow	1/4x3/8	poly tubing	set ~ 1 ft	for TD.		Approx
Date	Icon 922	25.2	—	—	—	534	7.93	340	7	20	Initial
5/10/22	ERM 922	24.6	—	—	—	531.4	6.83	354	47	—	
Total Depth	Icon 925	24.7	—	—	—	524	7.72	338	-17	26	.5 gal
40.77	ERM 925	24.0	—	—	—	510.5	7.32	340.8	-60	—	
Water Level	Icon 931	24.8	—	—	—	534	7.59	339	-6	9	1.0 gal
12.25	ERM 931	23.8	—	—	—	519.5	7.50	346.4	-87	—	
Volume	Icon 938	25.3	—	—	—	533	7.61	339	45	8	1.75 gal
.63	ERM 938	24.3	—	—	—	518.7	7.55	345.6	-95	—	
Stick Up	Icon 940	24.0	—	—	—	531	7.55	337	22	7	2.0 gal
1.10	ERM 940	24.0	—	—	—	513.4	7.55	311.2	-65	—	
GPS	1010	complete	Full	stagle.							
30.183302 -92.625602											
Sample Time											
945	Number of times dried: 0				Analyses: Icon - BTEX, TPH 8010, Cl, TDS, SC, Anions/cations total Metals. ERM - BTEX, VPH, EPH, Cl, TDS, SC cations/Anions, total + dissolved metals. 8260/328 list						

MC

BP/Castex-Ltd Adm Apx J-000122

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.

Groundwater Field Parameter Data
Project Name: Castex
Project No. 1009.A75
Sampled By: Jcow - ERM split

Rev: 2/

Well# / Size	Time	Temp. °C	DO%	DO mg/l	Specific Conductivity mS/cm	Conductivity mS/cm	pH SU	pH MV	ORP MV	Turbidity NTU	Vol. Purged
CD 10B (55-65)	855	upon measuring WL, well is dry, ~1-2 inches @									
Date		Bottom of well									
5/10/22											
Total Depth											
66.05											
Water Level											
Dry											
Volume											
N/A											
Stick Up											
1.5											
GPS											
Sample Time											
N/A	Number of times dried: N/A				Analyses: N/A						

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.

Groundwater Field Parameter Data
Project Name: Castex
Project No. 1009.175
Sampled By: Icow - ERM Split

Rev: 2/

Well# / Size	Time	Temp. °C	DO%	DO mg/l	Specific Conductivity mS/cm	Conductivity mS/cm	pH SU	~~pH MV~~ TDS ppm	ORP MV	Turbidity NTU	Vol. Purged
CD 11 A (30-35)	1525	Begin	purge	by	low flow	1/4 x 3/8	poly tubing	set	~1ft	for TD.	
Date	Icow 1526	26.0	—	—	—	1556	7.40	1039	-121	48	Turbid
5/10/22	ERM 1526	26.7	—	—	—	1510	7.73	1059	-194	—	—
Total Depth	Icow 1533	24.7	—	—	—	1548	7.19	1035	-124	11	.75
35.80	ERM 1533	23.5	—	—	—	1490	7.39	1045	-167	—	—
Water Level	Icow 1535	23.6	—	—	—	1543	7.17	1033	-110	11	1.0
15.55	ERM 1535	23.3	—	—	—	1492	7.26	1047	-169	—	—
Volume	Icow 1542	23.8	—	—	—	1541	7.16	1032	-76	10	1.5
.45	ERM 1542	23.7	—	—	—	1487	7.26	1043	-162	—	—
Stick Up	1620	complete 3 tuble									
1.1											
GPS											
Sample Time											
1550	Number of times dried: 0				Analyses: Icow - BTEX, TPH 6/D/O, Cl, TDS, SC, Anions total metal Cations, RAD 226/228 ERM - BTEX, VOC, EPH Cl, TDS, SC Anions, total & Dissolved Metals, Cations RAD 226/228						

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow & Lewis
Project Name: Castex
Project Location: Meraux, LA

Project No.: 1009.475
Date: 5/10/22
Page 1 of 1

- 610 leave Abbeville LA w/ #29
- 655 arrive onsite.
- 720 Charles Trahan w/ ERM onsite.
- 748 Katie Cuevas w/ Icon onsite. will cont. sample of CD-5C (90-95) (Radio for Icon & ERM). All info on separate sheets.
- 1300 complete sample of CD-5C (90-95 - Begin on 5/9), CD 10A (30-40) CD 8B (52-62). Icon off site for lunch.
- 1400 resume pge & sample.
- 1640 complete sample of CD8A (20-30) & CD11A (30-35) will return on 5/11 to cont pge & sample leave site.

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.

Groundwater Field Parameter Data
Project Name: Castex
Project No. 1009A25
Sampled By: FLOW - 4hr split

Rev: 2/

Well# / Size 3/4 in	Time	Temp. °C	DO%	DO mg/l	Specific Conductivity mS/cm	Conductivity mS/cm	pH SU	pH MV	ORP MV	Turbidity NTU	Vol. Purged
CD-7A (10-15)	1320	FLOW	calls		NO SAMPLE, insufficient			water			
Date											
5/11/22											
Total Depth											
16.90											
Water Level											
16.35											
Volume											
.01											
Stick Up											
2.1											
GPS											
Sample Time											
N/A	Number of times dried: N/A				Analyses: N/A						

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.

Groundwater Field Parameter Data
Project Name: Castex
Project No. 1009.475
Sampled By: Icow – ERu split

Rev: 2/

Well# / Size 3/4 in	Time	Temp. °C	DO%	DO mg/l	Specific Conductivity mS/cm	Conductivity ~~mS~~/cm us	pH SU	~~pH MV~~ TDS ppm	ORP MV	Turbidity NTU	Vol. Purged Typical
CO73 (27-32)	1332	Begin	purge	by low	flow	1/4 x 3/8	~1/4	for TD.			
Date	Icow 1334	26.8	—	—	—	1161	7.78	761	70	13	Initial
5/11/22	ERu 1334	24.9	—	—	—	1128	7.65	777.6	108	—	—
Total Depth	Icow 1344	24.4	—	—	—	1118	7.56	736	71	6	.5 gal
33.86	ERu 1344	23.9	—	—	—	1073	7.55	740.5	-35	—	—
Water Level	Icow 1406	25.8	—	—	—	1168	7.53	768	79	3	1 gal
16.95	ERu 1406	23.9	—	—	—	1119	7.55	769.2	-17	—	—
Volume	Icow 1427	25.7	—	—	—	1146	7.73	753	83	3	1.5 gal
.37	ERu 1427	24.8	—	—	—	1074	7.78	740.9	-5		
Stick Up	1715	complete sample									
2.15											
GPS											
30.187122 -92.612463											
Sample Time											
1435	Number of times dried: 0 - slow purge.				Analyses: Full Kits ERu & Icow						

AL

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.

Groundwater Field Parameter Data
Project Name: Castex
Project No. 1009.475
Sampled By: Flow - ERM split

Rev: 2/

Well# / Size	Time	Temp. °C	DO%	DO mg/l	Specific Conductivity mS/cm	Conductivity ~~mS~~/cm µS	pH SU	~~pH MV~~ TDS/Alm	ORP MV	Turbidity NTU	Vol. Purged
CD 1/13 (60-70)	809	Begin purge by low flow 1/4 x 3/8 poly tubing set ~1ft for TD.									Approx
Date	812	pump off unable to lift, will remove tubing & attach check valve									
5/18/22	820	resume. 8:30 well dry ~ .75gal will allow recharge									
Total Depth	Flow 823	22.7	—	—	—	704	8.27	456	96	xxx	Turbid
71.45	ERM 823	22.3	—	—	—	763.8	6.28	521.1	214	—	—
Water Level	Flow 828	22.0	—	—	—	712	7.95	463	33	xxx	.5gal
30.55	ERM 828	22.1	—	—	—	681.6	7.46	463	-4	—	—
Volume	845	resume 848 well dry minal recharge. 910 resume									
.90	912	remove tubing check valve clogged w/ silt WL - 66.41									
Stick Up	916	return tubing & resume. 918 well dry ~ 1gal total.									
1.80	1014	well dry (11) 40mL's for Flow/ERM VOC's + 500mL ERM EPH.									
GPS	1044	resume 1046 well dry ~500mL complete (1) ERM EPH.									
	1116	resume 1120 well dry ~1 liter to complete ERM EPH. 1150 resume									
Sample Time	1156	well dry ~1 liter Flow taken chlorides 1206 resume 1245 complete sample									
1000	Number of times dried: 3x's dry pgl 5x's dry sample.				Analyses: Flow - BTEX, TPH6/D/O, Cl, TDS, SC, Anions, Cations, & Dissolved Metals ERM - BTEX, VPH, EPH, Cl, TDS, SC, Anions total & Dissolved Metals Cations						

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow & Lewis
Project Name: Castex
Project Location: Mamou, LA

Project No.: 1009.425
Date: 5/11/22
Page 1 of 1

- 705 leave Abbeville, LA w #29.
- 755 arrive on site. Charles trailer w/ EDM & Kate Cenny w/ Icon onsite moving to first well. All info located on paper sheets
- 1130 break for lunch
- 1155 return to site.
- 1725 complete sample of CD 1B (60-70) & CD 7B (27-32) CD 7A (10-25) insufficient water not sampled. will return on 5/12. leave site.

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.

Groundwater Field Parameter Data
Project Name: Castop
Project No. 1009.A25
Sampled By: Icow - ERM split

Rev: 2/

Well# / Size 3/4in	Time	Temp. °C	DO%	DO mg/l	Specific Conductivity mS/cm	Conductivity ~~mS~~/cm us	pH SU	~~pH MV~~ ~~ORP~~ ppm	ORP MV	Turbidity NTU	Vol. Purged
CDGA (30-40)	950	Begin	purge	by	low flow	1/4 x 3/8 tubing ~		1ft f TD.			Approx
Date	Icow 950	26.9	—	—	—	1533	7.44	1018	86	XXX	Initial
5/12/22	ERM 950	25.7	—	—	—	1595	7.44	1048	-62	—	—
Total Depth	Icow 958	23.9	—	—	—	1671	7.26	1126	-22	3	.5 gal
42.00	ERM 958	23.8	—	—	—	1604	7.24	1129	-105	—	—
Water Level	Icow 1003	23.7	—	—	—	1653	7.30	1111	-15	2	1.0 gal
19.8	ERM 1003	23.7	—	—	—	1595	7.23	1121	-122	—	—
Volume	Icow 1010	23.9	—	—	—	1646	7.30	1108	-15	2	1.5 gal
.49	ERM 1010	23.8	—	—	—	1577	7.23	1108	-128	—	—
Stick Up	Icow 1017	24.0	—	—	—	1618	7.30	1087	-14	2	2.0 gal
2.3	ERM 1017	23.8	—	—	—	1550	7.23	1089	-131	—	—
GPS	1105	Complete sample.									
30.182654 -92.614974											
Sample Time											
1025	Number of times dried: D				Analyses: ~~[illegible]~~ same culprits as previous wells						

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.

Groundwater Field Parameter Data
Project Name: Castex
Project No. 1009.475
Sampled By: Icon - ERM sylet

Rev: 2/

Well# / Size 3/4 in	Time	Temp. °C	DO%	DO mg/l	Specific Conductivity mS/cm	Conductivity ~~mS~~/cm uS	pH SU	~~pH MV~~ TDS ppm	ORP MV	Turbidity NTU	Vol. Purged
CO 6B (56-66)	1125	Begin	purge	by	low flow	1/4 x 3/8 poly tubing		~1 ft for TD.			
Date	Icon 1126	32.6	—		—	558	7.85	350	77	62	turbid
5/12/22	ERM 1126	27.9	—		—	537.5	8.18	355.2	8	—	—
Total Depth	Icon 1134	29.3	—		—	774	7.75	495	64	54	.5 gal
68.00	ERM 1134	28.6	—		—	751.6	7.72	506.5	-25	—	—
Water Level	Icon 1150	28.4	—		—	819	7.61	526	72	21	1.0 gal
23.36	ERM 1150	27.2	—		—	791.5	7.66	537.0	-50	—	—
Volume	Icon 1202	28.7	—		—	805	7.57	516	68	11	1.5 gal
.98	ERM 1202	28.8	—		—	778.5	7.61	520.1	-74	—	—
Stick Up	Icon 1222	29.3	—		—	802	7.47	513	23	5	2.0 gal
2.4	ERM 1222	28.9	—		—	775.9	7.56	516.8	-95	—	—
GPS	Icon 1251	29.1	—		—	790	7.61	506	49	3	3.0 gal
	ERM 1251	29.3	—		—	765.9	7.50	510.0	-72	—	—
Sample Time	1435	complete sample.									
1300	Number of times dried:				Analyses:						

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.

Groundwater Field Parameter Data
Project Name: Castex
Project No. 1009.475
Sampled By: Icon – Erin split

Rev: 2/

Well# / Size	Time	Temp. °C	DO%	DO mg/l	Specific Conductivity mS/cm	Conductivity ~~mS~~/cm uS	pH SU	~~pH MV~~ TDS ppm	ORP MV	Turbidity NTU	Vol. Purged
CD-1c (40-50)	814	Begin	purge	by low	flow 1/4	x318	fully	set ~1	pH	for TD.	Approx
Date	Icon 818	21.8	—	—	—	538	8.50	316	38	XXX	Initial
5/2/22	Erin 818	21.8	—	—	—	647.8	6.55	440	134	—	—
Total Depth	Icon 823	21.1	—	—	—	800.0	7.82	523	63	22	.5 gal
51.80	Erin 823	21.4	—	—	—	767.0	7.11	524.7	21	—	—
Water Level	Icon 832	21.2	—	—	—	823	7.67	539	84	6	1.25 gal
17.20	Erin 832	21.4	—	—	—	786.1	7.24	538.4	-51	—	—
Volume	Icon 833	21.0	—	—	—	819	7.57	535	72	8	1.5 gal
.76	Erin 833	21.4	—	—	—	784.5	7.24	537	-80	—	—
Stick Up	Icon 838	21.4	—	—	—	825	7.52	540	57	9	2.0 gal
2.40	Erin 838	21.6	—	—	—	793.4	7.27	543	-97	—	—
GPS	Icon 845	21.7	—	—	—	825	7.49	539	54	3	2.5 gal
	Erin 845	21.7	—	—	—	796.4	7.30	545	-102	—	—
Sample Time	920	complete stagnate.									
855	Number of times dried: 0				Analyses: Icon - BTEX, TPH 8015/D/O, Cl, TDS, SC, Anions TOX/TOC Dissolved Metals, Cations RAD 226/228. Erin - BTEX VPH & EPH, Cl, TDS, SC, Anions, TOX/TOC & Dissolved Metals Cations RAD 226/228						

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow & Lewis
Project Name: Castex
Project Location: Manatee, LA

Project No.: 1009.A75
Date: 5/12/22
Page 1 of 1

- 620 leave Abbeville, LA to HQ
- 710 arrive onsite. Chuckes Trahan w/ EZR onsite.
- 750 Katie Cummings w/ Jcon onsite. Move to CD 7 location to cont. pull & staple. All info located on previous sheets.
- 1445 complete staple of CD 7 (40-50), CD6 A (30-40), CD6 B (56-66 will return on 5/13 to complete stapling @ CD6 C (75-80). Leave site.

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.

Groundwater Field Parameter Data
Project Name: Castex
Project No. 1009.475
Sampled By: Icow - Erin split (water)

Rev: 2/

Well# / Size 3/4 in	Time	Temp. °C	DO%	DO mg/l	Specific Conductivity mS/cm	Conductivity ~~mS~~/cm us	pH SU	~~pH MV~~ TDS ppm	ORP MV	Turbidity NTU	Vol. Purged
CD6C (75-80)	815	measure WL NO water detected, bottom 2 in of WL probe wet									
Date		@ TD.									
5/13/22	945	return to well, water bubbling in well unable to obtain accurate WL									
Total Depth		video taken for sound. NO discharge for TOC.									
79.9	955	Begin purge w/ ss check valve attached to 1/4 x 3/8 tubing &									
Water Level		peristaltic pump. check valve ~ 1 ft for TD.									
unable to measure	Icow 1007	32.4	—	—	—	832.	7.90	532	93	XXX	Turbid
Volume	Erin 1007	32.1	—	—	—	869.5	6.51	587.	177	—	—
7.25	1025	pump off, insufficient water NO sample.									
Stick Up N/A											
GPS											
previous groundwater sheets											
Sample Time											
N/A	Number of times dried: N/A				Analyses: N/A						

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow & Lewis
Project Name: Castex
Project Location: Mermentau, LA

Project No.: 1009.A75
Date: 5/13/22
Page 1 of 2

- 620 leave Abbeville, LA w #29
- 710 Arrive onsite Charles Trahan w/ ERM onsite.
- 730 Katie Clemens w/ Icon onsite. ~~Took~~ Move to CD6 (75-80) to collect GAS sample. HET & Icon will collect Iso Bag, while ERM will collect Geotech Double Evacuated GAS Cylinder. 3/4 ~~in~~ to 1/2 pipe thread bushing (PVC) w/ 1/2 thread to 1/4 inch hose ~~tab~~ barb (threaded to Bushing) will be attached to well. Master Flex will be connected to hosebarb then attached to ERM cylinder or HET/Icon Iso bag to collect sample (pics taken)
- 800 Sample time CD6 (75-80). Video taken to provide sound of well venting, ~~water~~ bulb to full Iso bag not used, enough pressure to fill bag in ~1-2 seconds. will begin GW sampling of well. All water info will be recorded on parameter sheets. Icon ~~@~~ will collect readings w/ 4 gas ~~meter~~ meter for TOC to ~2ft above TOC, will record max readings.
- 808 - Oxygen - 20.9 VOC - 15 ppm (max) H_2S - 0 CO - 0 LEL 99% (max)
- 820 - no water detected in CD6C (78-8) see parameter sheet. will move CD5B (65-70) & CD2 location, Icon monitored venting of wells during installation
- 830 arrive @ CD-5B (65-70, no pressure felt or heard when capping well is removed. Icon will collect 4 gas readings ~~for~~ for in inside of well:
LEL - 99% max Oxygen - 18.4 H_2S - 1.6 ppm CO - 0, VOC - 0
- 845 Sample time CD-5B (65-70). HET/Icon used Iso Bag were ~~water~~ bulb was ready to fill bag no pressure or venting observed. ERM used same GAS cylinder.
- 900 Arrive @ CD-2 location, no ~~[illegible]~~ obvious pressure or venting will check w/ 4 gas meter:
CD-2A (53-43) inside well - Oxy - 20.4 LEL - 99% max
VOC - 28 ppm (max) H_2S - 0 ppm CO - 0 ppm
CD-2B (58-68) inside well - LEL ~~[illegible]~~ 0% CO - 0
H_2S 0 ppm Oxy 20.9.

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: L.S/Kow & Lewis
Project Name: Castex
Project Location: Meraux, LA

Project No.: 1008.A75
Date: 5/13/20
Page 2 of 2

- 920 - Sample time CD2A (33-43) No sample (in 58-68). Same same ~~[illegible]~~ procedure as previous wells. (HET & EDM small volume collected, bailer would collapse, not reflecting to allow bag / cylinder to fill.)
- 935 will return to CD6 (75-80) to see if well has submerged and if any water has entered well. All info located on parameter sheets.
- 1040 Complete GAS samples for wells noted above. No sample of CD6C (75-80) (see parameter sheets) leave site.

* Pics taken of Tcon drums: Purge water contained in (1) 55 gallon steel drum left @ CD5 location, pic shows 2 drums one is empty - (1) drum of purge water located @ PAD next to CD2 & CD11 locations *

* After returning to office received phone call from Charles Treiber (EDM) indicating that they will not run gas samples collected today

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Client: Liskow + Lewis
Project Name: Castex Development, LLC
Project Location: Mermentau, LA

Project No.: 1009.475
Date: 6-1-22
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On-Site
Ryan L. - HET
Geoff Miller
Mason Jewel } ICON
Chris Miller
Michael Goodman - ERM
Michael Morris - ERM

6:15 - RL left Rayne LA (Truck 33)
700 - Arrived onsite @ Castex Development property
- Geoff Miller onsite
715 - Mason Jewel arrived onsite
735 - Chris Miller arrived onsite
750 - Started up rig and set up on CD-5 location
- ICON drilling w/ Geoprobe 7822DT
800 - ICON started drilling CD-5D monitor well location.
- Augering down w/ ≈2½" solid stem augers to approx. 90' BLS.
8:25 - Michael Goodman w/ ERM onsite
8:55 - ICON completed augering down w/ solid stem augers; ICON placing soil cuttings next to hole and/or throwing soil into the grass behind the rig.
- Jared w/ Targa pipeline onsite to clear locations.
9:0 - Michael Morris w/ ERM onsite too
- ICON pushed 3¼ inch barrells down to 96' BLS
1000 - Pushed 3¼" barrels down to 96' BLS; started setting up to run 2¼" barrels downhole through 3¼" barrels:
1015 - Started running 2¼" barrels downhole w/ sampling tools; ICON to soil sample from 96' BLS to identify next water bearing zone.
- ICON pushed 96-98' BLS to sample - not recovery; Sampling tool is pushing down expandable tip from 3¼" barrels and not getting recovery.
- ICON attempted to push down again and sample 98-100' BLS; no recovery
- ICON went back into hole w/ lightweight inner rods w/ discrete tip to attempt to push 3¼" expandable tip out of the way; discrete tip was wet and had sand on it when ICON pulled out.
1110 - ICON decided to quit attempting to sample and will set a blind well below 100' BLS depending on how deep they can push w/ rig.

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1125 - ICON started pulling 2¼" barrels ~~out of~~ w/ sampling tools out of hole.
1135 - Completed pulling 2¼"; went back into hole w/ expandable tip to set CD-5D monitor well.
- ICON couldn't get deeper than 102' BLS w/ 2¼" barrels; pulled 2¼" out of hole
- ICON will attempt to push 3¼" casing down deeper to set CD-5D monitor well after lunch
1200 - Break for lunch.
1300 - ICON resumed work; began pulling 3¼" barrels out of hole; pulled all 3¼" pipe
1330 - Went back into hole w/ solid stem augers; Augered down to 100' BLS; ICON disposing of soil cuttings in the grass next to the boring location;
1415 - @ 100' BLS w/ augers; started pulling augers out of hole
1435 - Completed pulling augers; started going back into hole w/ 3¼" barrells w/ expandable tip
1545 - ICON pushed 3¼" barrels to 104' BLS - couldn't push any deeper -
- Man well material down hole;
- Did not reach TD w/ well material
1600 - Pulled well material -
- will grout hole in the morning.
- Left site

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Scott, Louisiana 70583
(337) 261-1963 Fax (337) 261-1953

BORING No. CD-10 (Continued)

PROJECT NAME: Castex Development
PROJECT NUMBER: 1009.A75
LOCATION: Mermentau, LA
DRILLING METHOD: Geoprobe 7822 DT
SAMPLING METHOD: 4' x 2.75" Dual Tube
GROUND ELEVATION: –
TOP OF CASING:
LOGGED BY: RSL
REMARKS:

DATE STARTED: 6-2-22
DATE COMPLETED:
CASING TYPE/DIAMETER:
SCREEN TYPE/SLOT:
SAND PACK TYPE:
GROUT TYPE/QUANTITY:
DEPTH TO WATER:
GROUNDWATER ELEVATION:

REC.	PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE ID	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	2' push LITHOLOGIC DESCRIPTION	E.C.
3.0						62			0-3.0' - Silt, mod. VFG sand @ Bottom, reddish brown, Saturated, low density.	0.49
						64				
									TD = 64'	
						~~66~~				

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Client: Liskow + Lewis
Project Name: Castex Development, LLC
Project Location: Mermentau, LA

Project No.: 1009.A75
Date: 6-2-22
Page 1 of 2

On-Site
Ryan L. - HET
Geoff Miller } ICON
Chris Miller
Andrew Goodman - ERM

615 - RL left Royne, LA (Track 33)
700 - arrived onsite
710 - Geoff Miller arrived onsite
725 - Michael Goodman w/ ERM onsite
750 - Chris Miller arrived onsite
800 - ICON set up on CD-50 location - abandoning the hole; w
- Pulling 3¼" pipe and will re-enter hole w/ 2¼" pipe to grout hole.
850 - ICON down to ≈ 96' BLS w/ 2¼" barrels; Ran 3/4" PVC tremme pipe downhole inside of 2¼" barrels to grout.
945 - Completed grouting hole - Used approx. 50 gallons of bentonite/portland slurry to grout; gravity feed method through 3/4" PVC tremme pipe inside of 2¼" barrels until grout to surface.
- TO Note - Upon removing 3¼" barrels from hole - approx. bottom 10' of string of pipe was filled w/ Native materials (sand/silt/clay); ICON assumed it flowed into barrels either between expandable tip and barrels or through the threads.
1000 - ICON has pressure washer onsite - setting up to decon all piping
1030 - Begin deconing pipe.
1200 - Break for lunch
1330 - ICON begin deconing pipe again; Had to go to the hardware store to replace wand of pressure washer
1345 - Completed deconing pipe; load up pipe/tooling and move to next location.
1410 - ICON set up on CD-10 boring location
1415 - Heavy Rainstorms in the area
1445 - Rain slacked off; ICON set up to begin drilling @ CD-10
- Set up approx. 3' for CD-10A MW
- Started drilling w/ ≈ 2½" solid stem augers; drilled to 24' BLS w/ augers.
- went into hole w/ 2¼" barrels w/ discrete sampling point to ___ BLS
- Pulled discrete tip and began soil sampling.

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Project Name: Castex Development
Project Location: Mermentau, LA

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Date: 6-2-22
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1545 - Pushed to 64' BLS - collected sample 62-64' BLS
- Log core.
1600 - ~~Start~~ ICON to push another core; pushed 64-66' - no recovery.
Catcher broken
1630 - ICON completed work for the day; will decide what to do with borehole tomorrow
- Left site

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Environmental Consultants

Client: Liskow + Lewis
Project Name: Castex Development, LLC
Project Location: Mermentau, LA

Project No.: 1009.475
Date: 6-3-22
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On-Site
Ryan L. - HET
Geoff Miller - ICON
Chris Miller - ICON
Andrew Goodman - ERM

615 - RL left Rayne, LA (Truck 33)
700 - Arrived onsite
- Geoff Miller w/ ICON onsite.
710 - ICON started pulling 2¼" pipe in hole
720 - Andrew Goodman w/ ERM onsite
735 - Chris Miller w/ ICON arrived onsite
740 - ICON completed pulling 2¼" pipe
- Going back into hole w/ 2½" solid stem augers; augered down to 54' BLS
815 - Completed augering and pulling augers out of hole
- ICON will go back into same hole w/ 3¼" barrels to set new CD-10 monitor well.
825 - ICON pushed 2¼" barrels to 52' BLS
- Now running 2¼" barrels down hole inside of 3¼" casing. pushed 2¼" barrels to 72' BLS
845 - ICON ran well material down hole -
0.006" slotted screen w/ filter sock and 3/4" PVC riser
- Pulled all 2¼" barrels
900 - ~~Measured~~ Measured native and adding sand / pellets to well CD-10B (62-72')
- Screen Interval - (62-72') 0.006" Slotted screen w/ filter sock secured to 3/4" PVC riser w/ black electric tape
- Native Material - 70' BLS
- Sand @ 61' BLS
- Bentonite pellets @ 58' BLS

- To note! - ICON lost measuring steel rods in hole - approx. 48' of rods

950 - Finished pouring sand / pellets & hydrated pellets w/ approx. 5 gallons.
- Let pellets hydrate to ~~finish~~ grout.
1150 - ICON set up to grout CD-10B (62-72'); grouted w/ approx. 28 gallons of portland cement / bentonite slurry through 3/4" PVC tremme pipe inside of 3¼" barrels until grout to surface.
1240 - ICON completed grouting wells - decon'ing tools / equipment.
- Tracked rig back to CD-5 general area.
1300 - Left Site

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BORING No. CD-12

PROJECT NAME: Castex Development
PROJECT NUMBER: 1009.475
LOCATION: Mermentau, LA
DRILLING METHOD: Geoprobe 7822 DT
SAMPLING METHOD: 4"x2.25" Dual Tube
GROUND ELEVATION: —
TOP OF CASING: —
LOGGED BY: RJL
REMARKS: Field Coordinates: 30.18524055, -92.62312723

DATE STARTED: 6-6-22
DATE COMPLETED: 6-6-22
CASING TYPE/DIAMETER: 3/4" PVC
SCREEN TYPE/SLOT: 0.006" Slotted screen w/ Filter sock
SAND PACK TYPE: 20/40 Silica
GROUT TYPE/QUANTITY: Portland Bentonite Slurry
DEPTH TO WATER: —
GROUNDWATER ELEVATION: —

REC.	PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE ID	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	16' start 2.0' pushes — LITHOLOGIC DESCRIPTION	E.C.
3.1			1400						0-1.1' Clay, mod silt, brown/dk gray, low moisture, crumbly silty at top	0.14
			1405						1.1-3.1' - clay low silt, gray-red (1.1-2.1') + yellow brown/gray (2.1-3.1') low moisture, high density, Mn staining.	1.06
			1410			4			0-3.6' - Clay, minor silt, yellow brown and lite gray, low moisture, high density to stiff, mn and Fe staining (2.9-3.6')	1.68
3.6			1415							2.05
			1420			8			0-1.7 - SAA	
4.0'									1.7-3.6 - Silt, minor to mod clay, brown, saturated to high moisture, low density	1.07
			1425						3.6-4.0' - Clay, high silt, brown and gray, low moisture, low density	0.71
						12			0-1.9 - Silt, brown, saturated, low density clay lens (1.4-1.6')	
2.9'			1430						1.9-2.7 - Clay - brown and gray, low moisture, mod. density, silt lens (2.4-2.5')	0.24
			1435			16			0-0.3 - Clay, yellow-brown and gray, low moisture, high density	
2.9'			1440						0.3-0.9 - Silt, brown, saturated, low density	0.57
						18			0.9-2.9' - Clay, yellow-brown and gray, low moisture high density	
3.6'			1445						0-3.6' - Clay, red brown (0-0.4)(0.4-3.0') - light gray, low moisture, high density, Ca nodules (1.0" @ 1.3'), silt @ bottom minor Mn staining (2.0-3.6')	1.46
						20			0-1.7' - Clay, gray w/ red-brown mottling, low moisture, high density	
3.1			1450						1.7-3.1' - Clay, dark gray w/ red-brown mottling, low moisture, mod to high density 1/8-1/4" silt lenses throughout	1.12
						22			0-1.5' - Clay, dark gray, low moisture, high density, Ca nodules throughout	
2.8'			1455						1.5-2.8' - Clay, mod clay, brown, low moisture, low density	1.40
						24			0-0.7 - Clay (+ 1.5-2.2') clay, brown + dark gray, low moisture, high density	
2.4'			1500						0.7-2.2' + 2.2-2.4' silt, mod clay brown, damp, low density	0.69
						26			0-2.1' - Clay, red brown and dark gray, low moisture, high density silty clay lens [low density @ (1.5-1.9')]	
2.1'			1505							0.96
						28				

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BORING No. CD-12

PROJECT NAME: Castex Development
PROJECT NUMBER: 1609.A75
LOCATION: Mermentau, LA
DRILLING METHOD: Geoprobe 7822 DT
SAMPLING METHOD: 4' x 2.25" Dual Tube
GROUND ELEVATION: –
TOP OF CASING: –
LOGGED BY: RJL
REMARKS: Field Coordinates: 30.18524055, -92.62312723

DATE STARTED: 6-6-22
DATE COMPLETED: 6-6-22
CASING TYPE/DIAMETER: 3/4" PVC
SCREEN TYPE/SLOT: 0.006" PVC Slotted Screen w/ Filter sock
SAND PACK TYPE: 20/40 Silica
GROUT TYPE/QUANTITY: Portland Bentonite Slurry
DEPTH TO WATER: –
GROUNDWATER ELEVATION: –

REC.	PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE ID	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	2' passes / LITHOLOGIC DESCRIPTION	E.C.
						28			0-0.9-SAA	
2.8'			1510						0.9-2.8'-Silt, minor clay (0.9-1.6'), brown / lite reddish brown, high moisture to saturated, low density	0.42
						30				
4.0'			1515						0-4.0'-Silt, light grayish brown, saturated, low density.	0.41
						32				
2.2'			1520						0-2.2-Silt, gray / brownish gray, saturated to mod. moistre, low density	0.51
						34				
3.8'			1525						0-3.8'-Silt, lite brown / brown, saturated, low density	0.50
						36				
3.9'			1530						0-3.5'-Silt, as above, clay lens @ (0.2') 3.5-3.9'-Clay, minor to mod silt, gray / low moisture, low density	0.47
						38				
3.9'			1535						0-3.9'-Silt, 4-6" silt (saturated, gray, low density) and clay lenses (gray, mod moisture, low density)	0.52
						40				

TD=40' BLS

CD-12 A
Screen - (7-17')
Native @ 11' BLS
Sand @ 6' BLS
Bentonite Pellets @ 3' BLS

CD-12B
Screen - (29-39')
Native @ 28' BLS
Sand - None
Bentonite Pellets @ 25' BLS

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow & Lewis
Project Name: Castex Development
Project Location: Mermentau, LA.

Project No.: 1009.A75
Date: 6-6-22
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On-Site
Ropin L. - HET
David Sanguinetti - ERM
Geoff Miller
Jay Culpepper } ICON
Dylan White
Chase Joubert - ICON

900 - RL left HET office (Truck 36)
- Stopped for food / drinks
950 - Arrived onsite
- Geoff Miller, Jay Culpepper, Dylan White onsite
- David Sanguinetti w/ ERM onsite
1000 - ICON moving rig and equipment to set up on new location.
1000 - Chase Joubert w/ ICON onsite; Survey Crew also onsite to survey ICON's previously installed monitor wells; ICON will collect a round of water levels / head readings from all monitor wells.
1025 - ICON set up on location; drilling w/ Geoprobe 7822 DT
- rigging up to install EC probe.
1200 - ICON completed rigging up to probe; EC probe calibrated.
- Began installing EC probe.
1230 - ICON pushed to approx. 900 Feet BLS
- Pulled EC probe tooling.
1250 - All EC probe tooling out of hole; ICON ran 3¼" PVC tremie pipe downhole; pushed down to approx. 55' BLS
- grouted w/ approx. 8 gallons of portland cement by gravity feed through tremie pipe until grout to surface.
1300 - Break for lunch - Chase Joubert + Surveyors left site
1400 - Resume work; ICON moved rig over slightly and began installing CD-12 Soil boring.
- Started logging CD-12 Soil boring - ICON not collecting samples.
1615 - Completed logging CD-12 to 40' BLS; ICON stopping there for today
Field Coordinates: 30.18524055, -92.62312723
- See Boring Log + photos for details

*To Note! → ICON water levels were collected by Chase Joubert - See Photos for water levels.

1630 - Done for day; left site

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow + Lewis
Project Name: Castex Development
Project Location: Mermentau, LA

Project No.: 1009.A75
Date: 6-7-22
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615 - RL Left Rayne, LA (Truck 36)
700 - Arrived onsite
- Geoff Miller w/ ICON onsite
730 - David Sanguinetti w/ ERM onsite
740 - ICON started geoprobe and set back up on CD-12 soil boring location.
- Began pulling pipe from soil boring; pulled 2¼" pipe w/ sampling tubing;
- went back into same hole w/ oversized reamer on 2¼" pipe to 28' BLS
805 - ICON started pushing 3¼" casing into same borehole - casing to 28' BLS.
- Went back into borehole w/ 2¼" pipe inside of 3¼" casing
- Pushed to 39' BLS
810 - Ran well material downhole - 0.006" Slotted screen w/ filter sock secured w/ black electric tape to ¾" pvc riser - Screen Interval (29-39') BLS
- well set - pull 2¼"

CD-12B Details
Screen - (29-39')
Native @ 28' BLS - No Sand
Bentonite Pellets: 25' BLS
3¼" Casing @ 23' BLS

840 - Completed setting CD-12B - moved rig over slightly to begin CD-12A install
845 - ICON began setting CD-12A monitor well
- Pushed 2¼" barrels to 17' BLS - Ran well material downhole and pulled all 2¼" barrels.

CD-12A Details:
- Screen - (7-17') BLS 0.006 slotted screen w/ filter sock secured w/ black electrical tape to ¾" PVC Riser
- Native @ 11' BLS
- Sand @ 6' BLS
- Bentonite Pellets @ 3' BLS

900 - CD-12A well set
- Wait for bentonite to set in wells to grout.
1100 - ICON set up on CD-12A + CD-12B to grout - poured approx. 2 gallons of portland from surface into CD-12A borehole until grout to surface.

On-Site
Ryan L - HET
Geoff Miller
Jay Culpepper
Alan White
David Sanguinetti - ERM

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
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Client: Listrow + Lewis
Project Name: Castex Development, LLC
Project Location: Mermentau, LA

Project No.: 1009.475
Date: 6-7-22
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- Grouted CD-12B w/ approx. 16 gallons of portland cement by gravity feed method through 3/4" PVC tremme pipe inside of 3 1/4" casing from bottom up until grout to surface; pulling 3 1/4" casing as needed

1130 - Completed grouting CD-12A + CD-12B; ICON decoring equipment/tooling.
1145 - ICON mobing equipment to next location.
1220 - Set up on CD-13
- Break for lunch.
1330 - Test EC probe equipment; set up to install EC probe
CD-13 Field Coordinates: 30.18008646, -92.62251780
1400 - Completed installing EC probe to ≈ 92' BLS.
- See photos for details.
1410 - Pulled all EC probe tooling; went back into EC probe hole w/ 3/4" PVC tremme pipe - only got down to ≈ 30' BLS
1430 - ICON started augering w/ ≈ 2 1/2" solid stem augers to grout EC probe hole. augered down to ≈ 80' BLS.
1540 - Started pulling augers; ICON throwing soil cuttings from auger on the ground next to the boring location; not containing soil.
1615 - Augers out of hole; ICON ran 3/4" PVC tremme pipe down same hole to 80' BLS
- ICON grouted w/ approx. 36 gallons of portland cement by gravity feed method through 3/4" PVC tremme pipe until grout to surface.
1700 - Completed grouting EC probe bore hole
- ICON decoring equipment
- HET/ERM left site

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Environmental Consultants
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(337) 261-1963 Fax (337) 261-1953

BORING No. CD-13

PROJECT NAME: Castex Development, LLC
PROJECT NUMBER: 1009.475
LOCATION: Mermentau, LA
DRILLING METHOD: Geoprobe 7822 DT
SAMPLING METHOD: 4' x 2.25" Dual Tube
GROUND ELEVATION: -
TOP OF CASING:
LOGGED BY: RSL
REMARKS: Field Coordinates: 30.18008646, -92.62251780

DATE STARTED: 6-8-22
DATE COMPLETED:
CASING TYPE/DIAMETER: 3/4" PVC
SCREEN TYPE/SLOT: 0.006" PVC Slotted Screen w/ Filter sock
SAND PACK TYPE:
GROUT TYPE/QUANTITY: Portland Cement slurry
DEPTH TO WATER: -
GROUNDWATER ELEVATION: -

16.0' to TD = 2.0' pushes

Screen CD-12A (22-32') Bentonite @ 18' Sand @ 21'

REC.	PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE ID	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	E.C.
						0			0-1.6'- Silt, mod clay, brown / reddish brown, low moisture, crumbly	0.27
3.1'			730						1.6-3.1'- Clay, minor silt, brown/dark brown (1.6-2.6') and brown (2.6-3.1') w/ Fe staining, low moisture, high density	0.95
			735			4			0-3.0'- Clay, minor silt (2.3-3.0'), yellow brown, low moisture, mod to high density, Fe + Mn staining (1.4-3.0')	1.3
			740							
3.7'			745			8			3.0-3.7'- Silt, minor clay, yellow-brown, low moisture, low density, crumbly	0.69
			750						0-2.0'- Silt as above, clay lens @ (1.6-1.7')	0.97
3.3'			755						2.0-3.3'- Sand, high ~~yellow~~ silt to mod silt, light brown, low moisture, low density (VFG)	0.11
			800			12			0-0.2- SAA	1.45
3.0'			805						0.2-3.0'- Clay, minor to mod silt (0.2-0.7'), red brown and light gray, low moisture, mod to high density. Ca nodules (2.6-3.0')	2.51
2.0' pushed						16			0-1.2'- Clay, SAA	
2.4'			810						1.2'-2.4'- Clay, minor to mod silt, grayish brown, low moisture, low to mod density, Ca nodules/shell hash (2.2-2.4') silt lens @ (2.2-2.4')	1.11
						18			0-2.4'- Clay, brownish gray w/ red-brown mottling, low moisture, high density, silt lens (0.5-1.0") @ (0.4', 1.4', 1.6', 1.8')	
2.4'			815							1.61
						20			0-3.2'- Clay, mod to high clay (2.7-3.2'), brownish gray w/ red brown mottling, low moisture, high density - silt = low density	
3.2'			820						Ca nodules (0.5-0.8') (1.4'), shell hash @ (2.3-2.8')	1.77
						22			0-3.1'- Silt, minor clay, slight reddish brown, high moisture to saturated, low density	
3.1'			825							0.67
						24			0-2.6'- Silt SAA - Clay lens, (reddish brown, low moisture, mod density) at (1.3-1.9')	
2.6'			830						shell hash @ 0.7'	1.26
						26			0-1.7'- Silt, clay content increasing w/ depth, reddish brown, saturated, low density	
2.9'			835						1.7-2.9'- Clay, brownish gray to light gray, low moisture, high density	1.36
						28				

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91 Apollo Road
Scott, Louisiana 70583
(337) 261-1963 Fax (337) 261-1953

BORING No. CD-13

PROJECT NAME: Castex Development
PROJECT NUMBER: 1009.475
LOCATION: Mermentau, LA
DRILLING METHOD: Geoprobe 7822 DT
SAMPLING METHOD: 4'x 2.25" Dual Tube
GROUND ELEVATION: –
TOP OF CASING: –
LOGGED BY: RSL
REMARKS: Field Coordinates: 30.18008646, -92.62251780

DATE STARTED: 6-8-22
DATE COMPLETED:
CASING TYPE/DIAMETER: 3/4" PVC
SCREEN TYPE/SLOT: 0.006" PVC slotted screen w/ Filter sock
SAND PACK TYPE:
GROUT TYPE/QUANTITY: Portland cement slurry
DEPTH TO WATER: –
GROUNDWATER ELEVATION: –

2.0' pushes

CD-18B (32-42')
Native @ 30' BLS
Sand ~~@~~ loose
Auto-tight – 22' BLS

REC.	PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE ID	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	E.C.
						28				
2.3'			840						0-0.7'-Clay, red brown/gray, low moisture, mod. density - silt lens (0.3-0.4')	
									0.7-2.3'-Silt, minor to mod clay, ~~brownish gray~~ grayish brown, damp, low density	1.02
						30				
2.1			845						0-0.7-Clay, minor to mod silt, brownish gray, low moisture, mod. density	
									0.3-2.1'-Silt, grayish brown, saturated, low density	0.87
						32				
3.6'			850						0-3.6'-Silt, minor VFG sand, grayish brown, saturated, low density	0.85
						34				
3.5'			855						0-3.5'-Silt, SAA dark brownish gray	0.71
						36				
3.5'			900						0-3.5'-Silt, SAA	0.69
						38				
3.6'			905						0-3.6'-Silt, SAA	0.74
						40				
3.6'			910						0-3.6'-Silt, SAA	0.74
						42				
4.0'			915						0-2.4'-Silt, SAA 2.4-4.0'-Clay, silty @ top, gray/dark gray, low moisture, mod density	0.95
						44				
4.0'			920						0-4.0'-Clay, gray/dark gray, low moisture, mod to high density increasing w/ depth, organics (3.2-4.0')	1.45
						46				
2.9'			925						0-2.9-Clay, dark gray, low moisture, mod. density, wood @ 2.3' silt lens @ (1.6-1.9') - saturated + (2.7-2.9')	1.17
						48				

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants
91 Apollo Road
Scott, Louisiana 70583
(337) 261-1963 Fax (337) 261-1953

BORING No. CD-13

PROJECT NAME: Castex Development
PROJECT NUMBER: 1009.478
LOCATION: Mermentau, LA
DRILLING METHOD: Geoprobe 7822 DT
SAMPLING METHOD: 4"x2.25" Dual Tube
GROUND ELEVATION: –
TOP OF CASING: –
LOGGED BY: RJL
REMARKS: Field Coordinates: 30.18008646, -92.62251780

DATE STARTED: 6-8-22
DATE COMPLETED:
CASING TYPE/DIAMETER: 3/4" PVC
SCREEN TYPE/SLOT: 0.006" PVC Slotted screen w/ Filter sock
SAND PACK TYPE:
GROUT TYPE/QUANTITY: Portland cement slurry
DEPTH TO WATER: –
GROUNDWATER ELEVATION: –

REC.	PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE ID	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	E.C.
						48			2.0' pushes CD-13 C (58-68') Native - 57' NO SAND Bentonite - 54' BLS	
3.4'			930						0-3.4- Silt, dark brownish gray, saturated, low density mod clay contact (3-3.4')	0.63
						50				
3.91'			935						0-2.4- Silt, minor clay, dark gray, high moisture to saturated, low density, clay lens @ (1.7-2.1') 2.4-3.91'- Clay, brownish gray to dark gray, low moisture, mod to high density organics @ bottom	0.97
						52			0-2.5'- Clay, minor silt, dark gray, low moisture, mod density organics @ (0.6-1.2')	
2.8'			940						2.5-2.8'- silt, mod VFG Sand, grayish brown, low moisture, low density	0.92
						54			0-0.3- silt SAA	
2.6'			945						0.3-2.6'- Clay, red brown + dark gray, low moisture, mod density silt lens @ (0.6-0.8), (1.6'), + (1.1'-1.3')	1.16
						56			0-4.0'- Clay, dark gray, low moisture, high density, organics @ (0-1.6') (3.5-4.0') wood @ (3.8-4.0'), silt lenses @ (2.1-2.2'), + (2.6-3.0')	
4.0'			950							1.02
						58			0-1.0'- Clay, dark gray, low moisture, mod to high density 1.0-2.9'- SAND brownish gray and gray, saturated, low density clay lens @ (1.7-1.9') - VFG Sand, mod silt content.	
2.9'			955							0.30
						60			0-2.5'- Sand, gray/dark gray, saturated, low density minor to mod silt, (VFG Sand)	
3.6'			1000						2.5-3.6'- Clay, mod silt, gray, damp, low density	0.27
						62			0-1.2'- Silt, saturated, gray, low density	
3.6'									1.2-3.6'- Silt, mod clay, low to mod moisture, low density gray.	0.49
						64			0-1.5- Slavey Silt - (Slough)	
3.6'									1.5-2.1'- Silt, high clay, gray/brownish gray, mod moisture, low density	0.59
						66			2.1-3.6'- Clay, dark gray, low moisture, high density	
									TD = 66' BLS	
						68				

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow + Lewis
Project Name: Castex Development
Project Location: Mermentau, LA

Project No.: 1009.475
Date: 6-8-22
Page 1 of 2

On-Site
Ryan L. - HET
Charles Tahan - ERM
Geoff Miller
Jay Culpepper
Dylan White
} ICON

700 - RL arrived onsite (Truck 36)
- Charles Tahan w/ ERM onsite
- Geoff Miller, Jay Culpepper, Dylan White w/ ICON onsite
725 - ICON warming up rig; preparing to install CD-13 soil boring → Geoprobe 7822 DT w/ 4" x 2.25" Dual Tube sampling tooling.
743 - ICON began installing CD-13 Soil Boring
925 - ICON completed installing CD-13 - to 58' BLS
1010 - Completed logging 0-58' BLS; ICON continuing to drill deeper in same borehole.
1100 - Completed logging CD-13 Soil boring - TD = 66' BLS; ICON pulling 2¼" sampling tooling
1115 - Completed pulling sampling tooling; ICON re-entered same borehole w/ 2.5" solid-stem augers; Begin augering → ICON disposing of soil cuttings in the grass surrounding the geoprobe rig; no material was containerized.
- ICON augered down to 58' BLS
1145 - ICON completed augering and pulling augers.
- ICON re-entered same borehole w/ 3¼" barrels; drilled down to 58' BLS to set as surface casing.
1155 - ICON completed pushing 3¼" surface casing to 58' BLS
- Break for lunch
1300 - ICON ~~preparing to~~ running 2¼" barrels w/ expendable tip downhole to set CD-13C Monitor well.
- Pushed 2¼" barrels to 68' BLS
1310 - Ran well material downhole - 0.006" slotted PVC Screen w/ filter sock secured to 3/4" PVC riser w/ black electric tape
1320 - Pulled 2¼" barrels.
1330 - Started pulling 3¼" casing and measuring / pouring in well materials.

CD-13C Details
Screen: (58-68') BLS
Native Material @ 57' BLS
Sand: No SAND
Bentonite Pellets: 54' BLS
Casing: 53' BLS

1345 - Completed setting CD-13C, moved rig over and set CD-13B

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow + Lewis
Project Name: Castex Development, LLC
Project Location: Mermentau, LA

Project No.: 1009.A45
Date: 6-8-22
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1355 - ICON set up on CD-13B; starting pushing 2¼" barrels w/ expendable point
1410 - ICON pushed to 42' BLS; Ran well material downhole - 0.006" Slotted PVC Screen w/ filter sock secured to 3/4" PVC riser w/ black electric tape.
- ICON stopped to refuel rig w/ diesel.
1425 - Started pulling 2¼" barrels.
1433 - Barrels out of hole; ICON measuring and adding sand/bentonite as needed.
- CD-13B Details:
Screen - (32-42') BLS
Native Material @ 30' BLS
No Sand
Bentonite Pellets @ 22' BLS - Pellets possibly bridged in bore hole.
- 0.006" screen (Slotted PVC) w/ filter sock & 3/4" PVC riser.
1440 - Completed setting CD-13B; ICON moved rig over slightly to set CD-13A
1445 - ICON started pushing 2¼" barrels to set CD-13A
1458 - ICON pushed 2¼" barrels to 32' BLS; ran well material downhole.
CD-13A Details:
Screen: (22-32') BLS - 0.006" Slotted PVC screen w/ filter sock secured to PVC riser w/ electrical tape
Native Material @ 27' BLS
Sand @ 21' BLS
Bentonite Pellets: 18' BLS
- 3/4" PVC riser.
1505 - Pulled all 2¼" barrels
- Completed setting CD-13A
1530 - Set back up on CD-13C to grout borehole annulus; pulled 3¼" casing up slightly; ran 3/4" tremme pipe down hole.
1538 - Began grouting. ICON grouted by gravity feed through 3/4" PVC tremme pipe from bottom up w/ approx. 32 gallons of Portland/bentonite slurry until grout to surface.
16:30 - ICON completed grouting CD-13C; decoming pipe + equipment.
- MET/ERM left site.

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow + Lewis
Project Name: Castex Development, LLC
Project Location: Mermentau, LA

Project No.: 1009.A75
Date: 6-9-22
Page 1 of 2

6:20 - RL left Rayne, LA (Truck 36)
7:00 - arrived onsite
- Charles Trahan w/ ERM onsite
7:15 - David Sanguinetti w/ ERM onsite; will be observing NORM survey
7:30 - ICON personnel arrive @ CD-13 monitor well cluster location; prepare to grout CD-13A & CD-13B monitor wells.
- ICON ran 3/4" PVC tremme pipe down borehole of CD-13A
- grouted by gravity feed through tremme pipe w/ approx. 3 gallons of grout until grout to surface.
7:35 - ICON ran 3/4" tremme pipe down CD-13B borehole; grout by gravity feed through 3/4" PVC tremme pipe w/ approx. 4 gallons of grout until grout to surface
7:40 - ICON loading up rig and equipment to move to next location;
8:20 - ICON dropped rig geoprobe and set up on new location on wellpad near SN 206253 former well location.
- ICON tooling up to install EC probe.
- 8:55 - ICON began installing EC probe @ CD-14 location (30.1876990, -92.6117463)
9:05 - ICON reached approx. 50 ft. BLS and EC probe lost connection w/ laptop.
- ICON shut down EC probe; began pulling EC probe tooling.
- Wire broke off of tool head.
9:25 - ICON began drilling down w/ 2 1/4" barrels into same borehole to grout EC probe hole.
- ICON also fixing / re-tooling to attempt to EC probe again.
9:55 - ICON ~~drilling~~ drilled down to 40 feet w/ 2 1/4" barrels; ran 3/4" PVC tremme pipe downhole inside of the barrels and grouted hole; grouted by gravity feed w/ approx. 8 gallons of Portland slurry.
10:30 - Completed grouting hole; ICON decided to abandon original CD-14 hole location and move to a new location off of the former well pad; ICON indicated the the ground was too compacted to drill @ original location.
11:00 - ICON moved geoprobe over to new CD-14 location.

On-Site
Ryan L. - HET
Charles Trahan - ERM
David Sanguinetti - ERM
Geoff Miller
Jay Culpepper } ICON
Dylan White
Ken Champagne - HET
NORM survey

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow + Lewis
Project Name: Castex Development, LLC
Project Location: Mermentau, LA

Project No.: 1009.A75
Date: 6-9-22
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1130 - ICON set up on CD-14 location
- Rig over heated so ICON taking quick break
- Derek Pourcian w/ ICON, Ken Champagne + David Quinquinelli w/ EHT arrived @ well pad location - ICON conducting NORM Survey.

1200 - ICON NORM survey completed near SN 206253; left area
- ICON rig up and began installing CD-14 EC probe
CD-14 Field Coordinates: 30.18768813, -92.61147829

1235 - Completed installation of CD-14 ~~Set~~ EC probe - TD = ≈ 97' BLS
- Highest EC of 6710 uS/cm @ 68' BLS

1245 - Break for lunch.

1345 - ICON started pulling EC probe out of hole

1400 - ICON reentering hole w/ 2 1/2" augers;

1430 - Augered down to ≈ 40' BLS; Geoprobe overheated - take break

1445 - Resumed augering; Rig overheating about every 10' feet and ICON stopping each time to let machine cool down.

1545 - ICON completed augering down to ≈ 80' BLS
- Started pulling augers

1600 - Completed pulling augers, ICON placed soil cuttings from augering on the ground next to location; washing augers near CD-5 location w/ pressure washer and not containerizing cuttings or wash water.
- ICON went back into borehole w/ 3/4" PVC tremme pipe to ≈ 80' BLS; started grouted by gravity feed method through 3/4" tremme pipe ~~w/ [illegible] gallons of portland cement slurry until grout to surface.~~
- Not able to flow cement/grout through tremme pipe; pulled up all tremme pipe out of hole; pipes (bottom ≈ 20') were filled w/ native material.

1615 - ICON running 3/4" tremme pipe back downhole; got tremme pipe back down to ≈ 60' BLS
- grouted w/ approx. 36 gallons of portland cement slurry by gravity feed method through 3/4" PVC tremme pipe until grout to surface.

1700 - Done for the day
- Left site

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: LISKOW & LEWIS
Project Name: CASTEX
Project Location: JENNINGS, LA.

Project No.: 1009.A75
Date: 06/09/22
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0715 - LEFT HET OFFICE (KC) IN #30
0815 - ARRIVED ON SITE
- DEREK POURCIAU W/ ICON ONSITE TO PERFORM NORM SURVEY IN VARIOUS AREAS
0845 - MOBED TO BACKGROUND LOCATION
- NORM METER UTILIZED BY ICON TO CONDUCT SURVEY LUDLUM MODEL 3 SN# 193876
CAL. DATE: 5/3/2023
- TESTED METER AGAINST SOURCE; METER IS ACCURATE
- BACKGROUND LOCATION 30.181128°N -92.624856°W
READING ~ 10 µR/hr.
- AREA MOSTLY WOODED, HEAVY VEGITATION, PONDS, CANELS, DAMP SURFACES
0900 - DAVID SANGUINETTI W/ ERM ONSITE
0910 - MOBED TO WELL PAD W/ WELL ID:
CEL PROPERTIES LLC.
J.B. FARMS #1 S17, T10S, R2W
SERIAL # 229984
- SITE CONTAINS 3 TANKS WITHIN BERMED AREA, LIMESTONE PAD, HEATER TREATER, SEPERATOR, AND WELL HEAD
- VEGITATION AROUND LOCATION ~ 2-3' IN HEIGHT
- SMALL SEPERATOR WITH READINGS OF ~ 400 µR/hr. AND SOME SURFACE PIPE SCALE BELOW THE UNIT W/ READINGS OF ~ 200 µR/hr. → 30.184375 N -92.614344 W
- SMALL PIECE OF PIPING ~ 24" LONG LAYING ON SURFACE, READINGS ~ 120 µR/hr. → 30.184419 N -92.614309 W
- LOCATED AREA NEAR WELL HEAD WITH READING GREATER THAN 700 µR/hr. 30.184630°N -92.614219°W
- STOCKPILED PIPING IN TURN AROUND HAS READING OF 1,500 µR/hr. 30.184696°N -92.614386°W

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: LISKOW & LEWIS
Project Name: CASTEX
Project Location: JENNINGS, LA.

Project No.: 1009.A75
Date: 06/09/22
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1055 - COMPLETED LOCATION
1100 - MOBED TO NEXT LOCATION 30.187897°N -92.611680°W
1110 - BEGAN NORM SURVEY ON LOCATION
- VEGITATION ~ 2-3' IN HEIGHT
- AVERAGE READING THROUGHOUT SITE ~10-15 μR/hr.
1150 - COMPLETED SURVEY IN THIS AREA
1155 - MOBED TO NEXT AREA 30.181822°N -92.615643°W
- AREA CONSISTED OF (3) TANKS, WELL HEAD, SEPERATOR / HEATER TREATER
SER # 208588 ENCO RESOURCES, INC. S17, T10S, R2W
- LOCATED SCALE ON SURFACE 30.182070°N -92.615545°W
READINGS ~30 μR/hr.
- LOCATED SMALL PC. OF PIPING >50 μR/hr.
30.182188°N -92.615762°W
- LOCATED AREA ALONG ACCESS ROAD WITH SCALING, ~6' IN DIAMETER & 1' THICK WITH READINGS OF 50 μR/hr. 30.182584°N -92.614988°W
1345 - COMPLETED SURVEY IN THIS AREA
- MOBED TO NEXT LOCATION
30.184016°N -92.620777°W
1355 - BEGAN SURVEYING AREA
- VEGITATION IN AREA ~ 3-4' IN HEIGHT
- AVERAGE READING THROUGH AREA 10-15 μR/hr.
1445 - COMPLETED SURVEYING AREA
- MOBED TO NEXT AREA, 30.184262°N -92.626675°W
- VEGITATION IN AREA ~ 3-4' IN HEIGHT
- AVG. READINGS 9-12 μR/hr.
1505 - COMPLETED AREA
- MOBED TO NEXT AREA 30.188939°N -92.614744°W
- AVG. READINGS 8-12 μR/hr.
1330 - COMPLETED AREA
- MOBED TO NEXT LOCATION
- 30.189559°N -92.618756°W, VERY WOODED AREA
1550 - BEGAN SURVEY - READINGS 9-13 μR/hr.
1605 - COMPLETED SURVEY
1615 - HET OFF SITE
- ~~[illegible]~~ ARRIVED @ HET

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: LISKOW & LEWIS
Project Name: CASTEX
Project Location: JENNINGS, LA.

Project No.: 1009.A75
Date: 06/09/22
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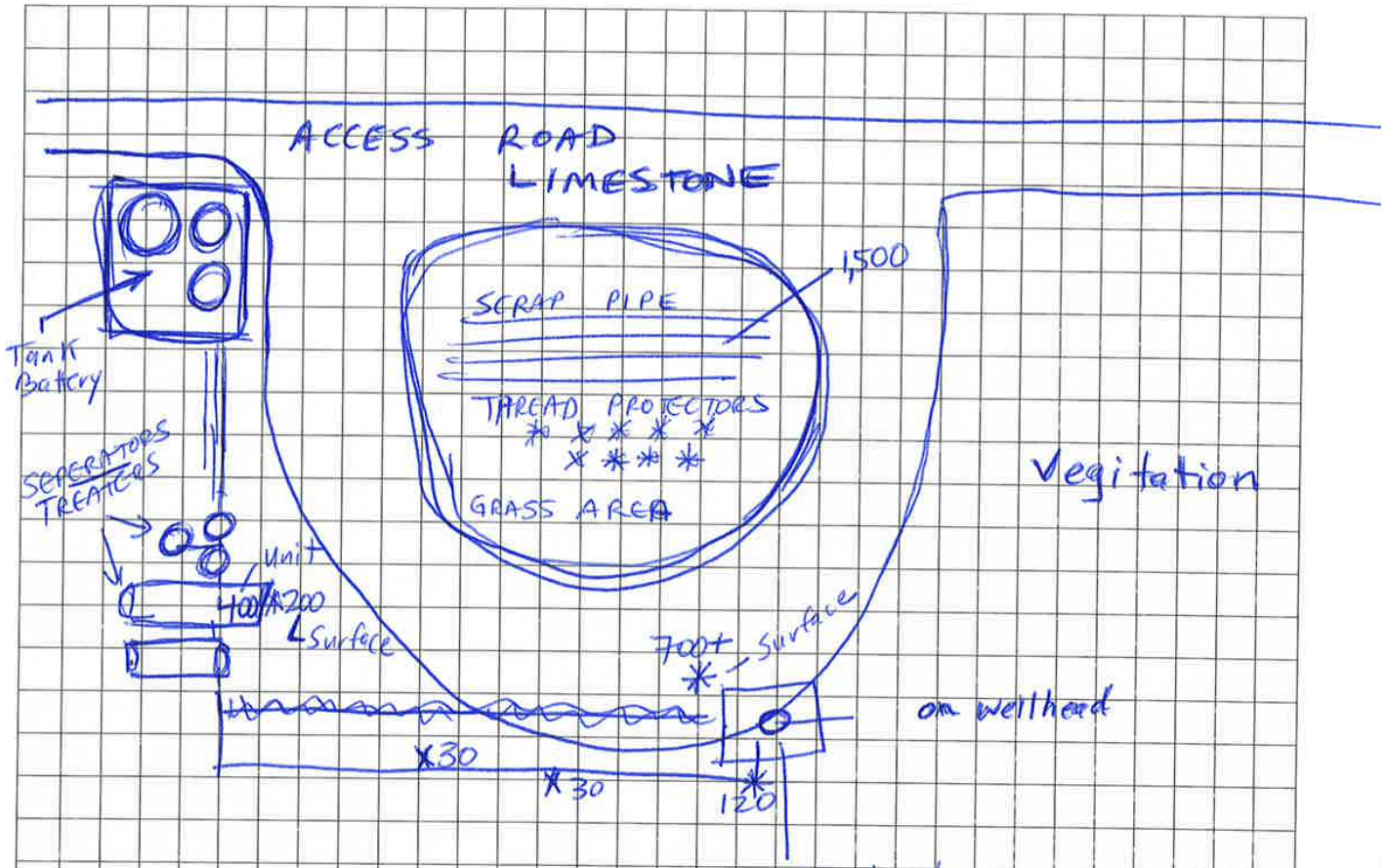

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: USKOW & LEWIS
Project Name: CASTEX
Project Location: JENNINGS, LA.

Project No.: 1009.A75
Date: 6/09/22
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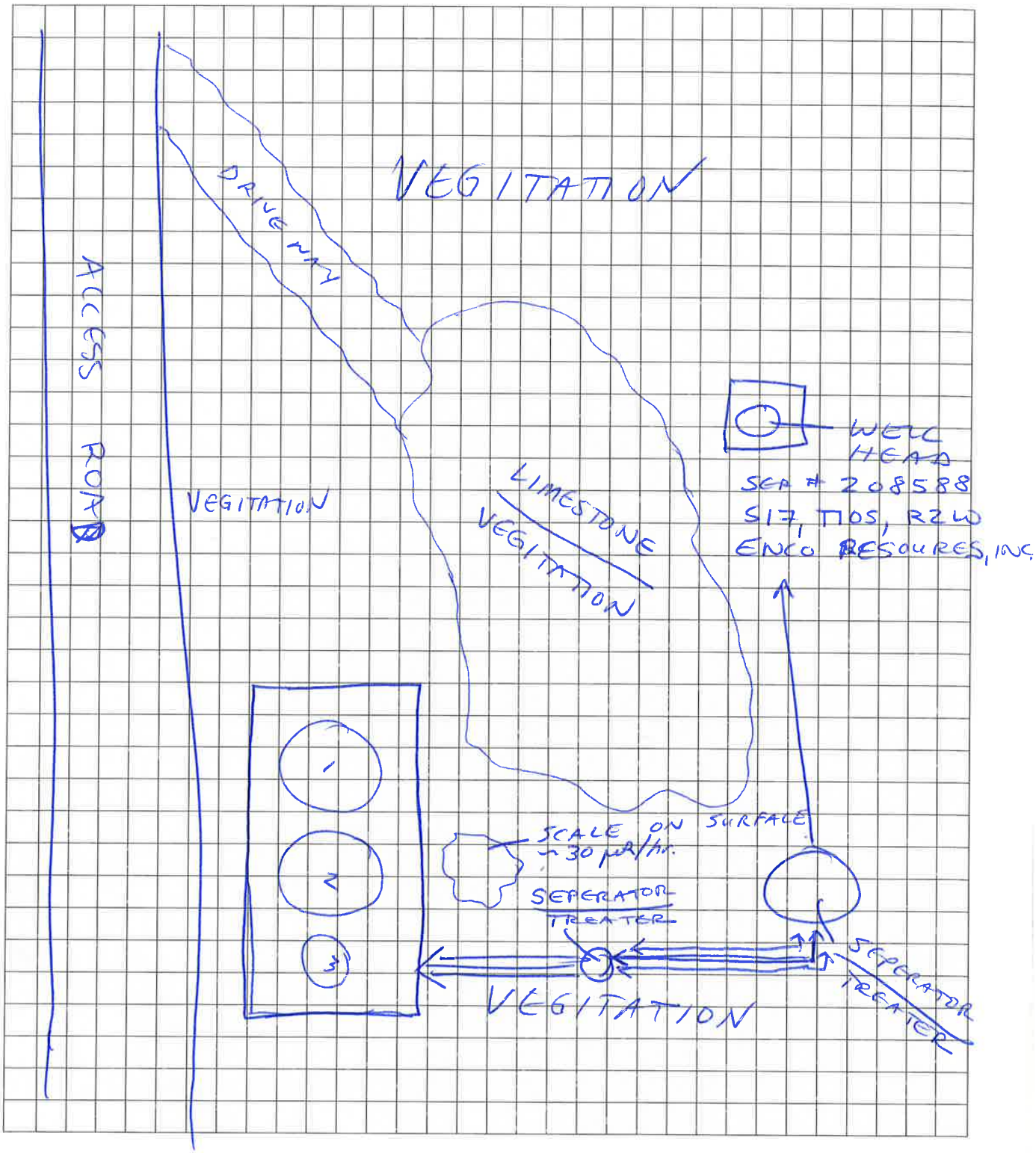

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants
91 Apollo Road
Scott, Louisiana 70583
(337) 261-1963 Fax (337) 261-1953

BORING No. CD-14

PROJECT NAME: Castex Development, LLC
PROJECT NUMBER: 1009-A75
LOCATION: Mermentau, LA
DRILLING METHOD: Geoprobe 7822 DT
SAMPLING METHOD: 4' x 2.25" Dual Tube
GROUND ELEVATION: -
TOP OF CASING: -
LOGGED BY: RJL
REMARKS: Field coordinates: 30.18768813, -92.61147829

DATE STARTED: 6-10-22
DATE COMPLETED: 6-10-22
CASING TYPE/DIAMETER:
SCREEN TYPE/SLOT:
SAND PACK TYPE:
GROUT TYPE/QUANTITY:
DEPTH TO WATER:
GROUNDWATER ELEVATION:

16.0' to T.D. = 2.0' pushes

REC	PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE ID	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	E.C.
			800			0			0-0.4- Silt, high clay, brown w/ red-brown mottling, low moisture, crumbly	
2.1'			805	2.4-4.0' Ext. 4.0' Silt					0.4-2.1'- Clay, brown + gray w/ redbrown mottling, low moisture, mod density, silty clay lens @ (1.3-1.6')(brown)	1.75
			810	4.0-8.0' Ext.		4			0.4-4.0'- Clay, minor to mod. silt @(2.0-4.0'), yellow-brown and light gray, low moisture, mod to high density, red-brown mottling (2.0'-4.0')	3.81
4.0'			815	6-8' Ext.						3.45
			820	8-10' Ext.		8			0-2.8'- Clay, light gray, yellow-brown + red-brown mottled, low moisture, high density, Ca nodules @ (1.8-2.6')	2.77
4.0'			825						2.8-4.0'- Sand, high silt, brown, mod to high moisture, low density, Clay lens @ (3.5-3.8')→ Ca nodules throughout	3.19
			830			12			0-2.2'- Sand, VFG, mod to high silt, black (0-0.6') and brown (0.6-2.2') saturated, low density	1.88
3.8'			835						2.2-3.8'- Clay, yellow-brown + light gray, Fe mottling, low moisture, high density, Ca nodules (2.4-2.5'), (2.8-2.9')	1.39
						16'			0-2.5'- Clay, as above, silt lens (1/4" to 1/2") @ 0.7	4.32
2.5'			840						Clayey Silt lens @ (1.3-1.6') Sandy silt (1.6-2.5')	2.44
						18			0-2.4'- Clay, minor silt, yellow-brown + light gray (1.8-2.4) w/ Fe mottling, low moisture, high density, silt lens (0.3, 0.7, 1.7')	
2.4'			845							3.71
						20			0-2.7'- Clay, light gray w/ yellow-brown/redbrown mottling, low moisture, high density, Ca nodules 0.7', Mn @ 1.7', 1/4" to 1/2" silt lenses @ (1.3, 2.2', 0.9')	
2.7'			850							3.72
						22			0-1.2'- Clay, light gray, low moisture, high density, shell hash (0.8-1.0')	
2.8'			855						1.2-2.8'- Silt, mod clay, light brown, low to mod moisture, low density Ca nodules/ shell hash (1.8-2.3')	2.83
						24			0-1.2'- Silt, minor to mod clay, light brown, mod. moisture, low density, shell hash (0.9-1.2')	
2.4'			900						1.2-2.4'- Clay, light gray + brown, low moisture, mod to high density, 1/4" silt lenses @ (1.5', 2.2', 2.4)	3.47
						26			0-2.2'- Clay, light gray and brown, low moisture, high density, 1.0" silt lens @ 0.7' Fe staining/mottling (0.7-2.2')	
2.2'			905	26-28' Ext. Silt						3.78
						28				

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
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91 Apollo Road
Scott, Louisiana 70583
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BORING No. CD-14

PROJECT NAME: Castex Development, LLC
PROJECT NUMBER: 100a. A75
LOCATION: Mermentau, LA
DRILLING METHOD: Geoprobe 7822 DT
SAMPLING METHOD: 4'x 2.25" Dual Tube
GROUND ELEVATION: -
TOP OF CASING: -
LOGGED BY: RJL
REMARKS: Field Coordinates: 30.18768813, -92.61147829

DATE STARTED: 6-10-22
DATE COMPLETED: 6-10-22
CASING TYPE/DIAMETER:
SCREEN TYPE/SLOT:
SAND PACK TYPE:
GROUT TYPE/QUANTITY:
DEPTH TO WATER:
GROUNDWATER ELEVATION:

REC.	PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE ID	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	E.C.
						28			0-0.6'- Clay, gray & red brown mottled, low moisture, high density	
2.2'			910						0.6-1.5 - Silt, minor clay, gray to brownish gray, high moisture, low density	2.41
									1.5-1.9- Clay - as above	
						30			1.9-2.2'- Silt, fmod VFG Sand, brownish gray, high moisture, low density	
3.3'			915						0-3.3'- Silt, ~~minor~~ grayish brown, saturated, low density	1.05
									shell hash (0-1.4')	
						32			0-3.0'- Silt, SAA	
3.7'			920						3.0-3.7'- Clay, gray and brown, low moisture, high density	0.71
						34			0-1.2- SAA	
2.8'			925						1.2-2.5 - Clay, mod to high silt, gray, low to mod moisture, low density	0.93
									2.5-2.8'- Silt, gray / dark gray, saturated, low density	
						36			0-3.7'- Silt, minor VFG Sand, dark gray, saturated, low density	
3.7'			930							0.64
						38			0-3.6'- Silt, SAA	
3.6'			935							0.56
						40			0-3.7'- Silt, SAA - low to mod moisture (2.9-3.7') grayish brown.	
3.7'			940							0.53
						42			0-3.7'- Silt, grayish brown, saturated, low density	
3.7'			945							0.50
						44			0-3.7'- Silt, SAA	
3.7'			950							0.51
						46			0-4.0'- Silt, brown, saturated, low density, minor clay	
4.0'			955						clay lens (1.5") @ (0.1') + @ (3.8-4.0')	0.54
						48				

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants
91 Apollo Road
Scott, Louisiana 70583
(337) 261-1963 Fax (337) 261-1953

BORING No. CD-14

PROJECT NAME: Castex Development LLC
PROJECT NUMBER: 1009.475
LOCATION: Mermentau, LA
DRILLING METHOD: Geoprobe 7822 DT
SAMPLING METHOD: 4' x 2.25" Dual Tube
GROUND ELEVATION: –
TOP OF CASING: –
LOGGED BY: RJC
REMARKS: Field Coordinates: 30.18768813, -92.61147829

DATE STARTED: 6-10-22
DATE COMPLETED: 6-10-22
CASING TYPE/DIAMETER:
SCREEN TYPE/SLOT:
SAND PACK TYPE:
GROUT TYPE/QUANTITY:
DEPTH TO WATER:
GROUNDWATER ELEVATION:

REC	PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE ID	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	E.C.
						48				
3.2'			1000						0-3.2'- clay, brownish gray to light gray, low moisture, low density 10" silt lens @ (1.7')	0.90
						50				
3.0'			1005						0-3.0'- clay, gray, low moisture, low ~~[illegible]~~ density ~~[illegible]~~ large wood chunks @ top and wood throughout	1.05
						52				
4.0'			1010						0-4.0'- Clay, gray and light gray, low moisture, low density, organics / wood throughout.	0.91
						54				
4.0'			1015						0-3.3'- Clay, as above 3.3-4.0'- Silt, mod to high clay, gray, mod to high moisture, low density	1.14
						56				
4.0'			1020						0-4.0'- Silt, mod clay, dark gray, high moisture to saturated, low density, clay lens @ (2.4-2.7')	0.52
						58				
4.0'			1025						0-2.3- Silt, mod to high clay, gray, high moisture low density 2.3-4.0'- Silt, gray, saturated, low density, clay lens @ (3.3-3.5')	0.49
						60				
4.0'			1030						0-4.0'- Silt, dark gray, saturated, low density minor VFG Sand	0.53
						62				
1.6'			1035						0-1.6'- Silt, minor to mod VFG sand, dark gray, saturated, low density clay lens @ (0.4') & (0.9-1.0')	2.11
						64				
4.0'			1040	64-66' ERW split					0-4.0'- Silt, SAA	4.03
						66				
									TD = 66' BLS	
						68				

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow & Lewis
Project Name: Castex Development, LLC
Project Location: Mermentau, LA

Project No.: 1009.475
Date: 6-10-22
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615 - RL left Royne, LA (Truck 36)
700 - Arrived onsite
- Charles Trahan w/ ERM onsite
- Jay Culpepper w/ ICON onsite
720 - Dylan White & Geoff Miller arrived onsite
730 - ICON warming up Geoprobe; setting up on CD-14 to begin soil sampling
735 - Started CD-14 Soil borings installation.
750 - Started logging / sampling CD-14 location - Installed by ICON w/ Geoprobe 7822 DT w/ 4' x 2.25" Dual Tube
1020 - ICON drilled down to 68' BLS - Sample liner for (66-68') interval stuck in barrels
- ICON pulling out of hole to retrieve sample liner.
1050 - ICON not able to retrieve sample liner from barrels
- Ended sampling
- CD-14 Soil Boring
- TD = 66' BLS
- Sample Intervals: (2-4')(4-6')(6-8')(8-10')(26-28')(64-66')
- ERM collecting split samples - no ERM split on (2-4')

- ICON reentering same borehole w/ discrete point; will drill down to TD of boring
- Reached TD of boring
- Leaving barrels w/ tip in hole over weekend;

1130 - Done for the day; left site

On-Site
Ryan L. - MET
Charles Trahan - ERM
Geoff Miller
Jay Culpepper } ICON
Dylan White

Derek Bourion - ICON
Sydney Manuel - MET } NORM Survey
David Sguigetti - ERM

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow + Lewis
Project Name: Castex
Project Location: Jennings, LA

Project No.: 1009.A75
Date: 06/10/22
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0730 SWI left office in Truck #29
0815 Arrived on site, met w/ Derek Fourcian + Chase Joubert (ICON)
0835 mobe to background location to begin NORM sampling
David Sanguinetti (EKM) arrived on site
Derek P. conducted NORM meter check:
Ludlum Model 3 SN#143876, Cal. Date: 5/3/2023
Tested meter w/ source - meter is accurate w/ 800 μR/hr.
Background location - (30.18103333, -92.62494722)
(called R-1) - Area wooded, heavy vegetation, damp surfaces
Before sampling values: 1 meter = 10 μR/hr
@ surface = 10 μR/hr
0845 R-1 (0-6")
0850 R-1 (6-12")
0855 R-1 (12-18")
0900 R-1 (18-24")
(ICON will mark areas > turn background = 20 μR/hr)

After sampling values: 1 meter = 10 μR/hr
@ surface = 10 μR/hr
6 in = 15 μR/hr
12 in = 16 μR/hr
18 in = 16 μR/hr
24 in = 16 μR/hr

0905 mobe to sampling location R-2 (30.18205555, -92.61559167)
near ser. #208588-9NLO
Resources, INC. Tank Battery (3 Tanks, well head, separator/heater treater) - Sampling scale on ground surface
R-2 area (1' x 2') highest reading - 23 μR/hr
Before sampling: 1 meter = 10 μR/hr
@ surface = 23 μR/hr
0930 R-2 (0-6")
0935 R-2 (6-12")
Within same area - 85' of piping from tanks to separator/treater w/ readings > 100 μR/hr, highest value marked E1 - w/ 200 μR/hr reading
(30.18215278, -92.61566111)

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow + Lewis
Project Name: Castex
Project Location: Jennings, LA

Project No.: 1009.1475
Date: 06/10/22
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0940 move to next sampling location R-3 (30.18250277, -92.6149889)
area along access road w/
scaling, south of CO-6. (14'x10') area
Before sampling: 1 meter - 23 μR/hr
thick vegetation @ surface - 43 μR/hr
1000 R-3 (0-6")
1005 R-3 (6-12")
1010 R-3 (12-18")
~~1015 R-3~~
After sampling - 1 meter - 19 μR/hr 12 in - 24 μR/hr
@ surface - 32 μR/hr 18 in - 20 μR/hr
6 in - 29 μR/hr

1015 move to next sampling location: well pad SN# 229984
CEL properties LLC - J.B. Farms #1, S17, T10S, R2W
Site contains 3 tanks within bermed area, limestone pad, heater treater/seperator, well head, vegetation surrounding area.
Derek P. surveying/marking out locations, Chase J. intermittently sampling -
R-4 location marked w/ highest reading @ 800 μR/hr
(30.18462500, -92.61426666)
1030 mark location of R-5 w/ highest reading of 250 μR/hr
(30.18440833, -92.61435000) - may sample, dependent on ability to hand auger through concrete/shell.
Before sampling: 1 meter = 65 μR/hr
@ surface = 250 μR/hr
1032 mark R-6 location (30.18443056, -92.61443332)
(3'x4' area) highest reading 30 μR/hr.
1035 mark R-7 location (30.18449444, -92.61425000)
6 in spot - 26 μR/hr
1037 mark R-8 location (30.18452778, -92.61424167)
6 in spot - 40 μR/hr
1039 mark R-9 location (30.18473889, -92.61459444)
(1'x1') area - 32 μR/hr

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow + Lewis
Project Name: Castex
Project Location: Jennings, LA

Project No.: 1009.A75
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1045 Mark E-2 location (30.18455000, -92.61432778)
misc. oilfield piping in
a pile, highest reading - 1700 µR/hr
1050 mark E-3 location (30.18459722, -92.61421944)
90° angle of piping on
well head. highest reading - 290 µR/hr
1055 Mark E-4 location (30.18446389, -92.61436389)
misc. piping on ground
and equipment highest reading - 120 µR/hr
1057 mark E-5 location - (30.18440000, -92.61436389)
separator/treater tank
highest reading - 470 µR/hr
1100 sampled R-5 (0-6") - after 6in refusal due to
concrete/rock (8' x 7' area)
after sampling: 1 meter - 70 µR/hr 6in - 75 µR/hr
@surface - 140 µR/hr
1109 Return to R-4 location
Before sampling: 1 meter = 35 µR/hr
@surface - 800 µR/hr (6' x 11') area

1120 mark R-10A / R-10B locations
R-10A (30.18460833, -92.61420556) 6in spot under
flow line, highest reading 110 µR/hr
R-10B (30.18460556, -92.61406667) (1' x 1' area)
highest reading 40 µR/hr

1130 Return to R-4 location, sampled R-4 (0-4")
refusal @ 4" due to concrete/rock.

After sampling = 1 meter - 45 µR/hr
@surface = 210 µR/hr
4 in - 1160 µR/hr
Tiony loaded all equip, see all site photos, EEM took spects of
all samples. (R1-R4)
1145 Left site
1230 Arrived @ office

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow & Lewis
Project Name: Castex Development, LLC
Project Location: Mormentau, LA

Project No.: 1009.A75
Date: 6-13-22
Page 1 of 2

900 - RL Left HET office (Truck 36)
- Stopped to pick up drinks / lunch
1000 - arrived onsite
- Geoff Miller, Chris Miller, Dylan White w/ Icon onsite
- Charles Trahan w/ ERM onsite
1015 - ICON already set up on CD-14 from last week 2¼" barrels w/ discrete point in borehole to a depth of 68' BLS → Geoprobe 7822 DT
- ICON pulling 2¼" w/ discrete tip out of hole; will re-enter same borehole w/ 2¼" barrels w/ expendable tip to set temporary monitor well.
1045 - ICON @ 80' BLS w/ 2¼" barrels and expendable tip
- RUN well material downhole to set temporary well
- CD-14B Details
- Screen Interval - (60-80') BLS - 0.006" Slotted PVC Screen w/ Filter sock secured to riser w/ Black electrical tape.
- Riser → 3/4" PVC pipe - Casing @ approx. 56' BLS
- ICON poured approx. 4 gallons of fresh water downhole to keep well from caving
1055 - ICON collecting collected water level → 25.95' Below TOC.
- ICON to let temp. well sit for a ~~while~~ approx. 1-2 hours before sampling.
1100 - ICON moved over slightly to install permanent monitor well; will set well while waiting to sample temporary well.
1105 - ICON began installation of CD-14A
- ICON buzzing down w/ 2¼" pipe and oversized head to 28' BLS
1112 - ICON collected water level on CD-14B → 23.85' below TOC
- ICON filled up geoprobe w/ diesel
1120 - ICON pulling 2¼" barrels w/ oversized head; going back into same borehole w/ 3¼" casing
1134 - ICON letting rig cool down
- ICON collected water level. - CD-14B → 23.84' below TOC
1145 - ICON pushed 3¼" barrels to 28' BLS
- Break for lunch.

On-Site
Ryan L. - HET
Charles Trahan - ERM
Geoff Miller
Chris Miller } ICON
Dylan White
GW Sampling Crew
Katie Cummins - ICON
David Sanguinetti - ERM
Darryl Carroll - HET
See DEC Notes for GW sampling crew notes

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow & Lewis
Project Name: Castex Development, LLC
Project Location: Mementau, LA

Project No.: 1009.475
Date: 6-13-22
Page 2 of 2

1245 - ICON setting up to ground water sample CD-14B (60-80')
- ERM collecting split samples.
1255 - CD-14B → water level @ 23.85' Below TOC
- ICON setting up to purge CD-14B
- Run tubing down hole.
1306 - Pump on; begin purging well.
- Geo pump peristaltic pump w/ 3/8" OD x 1/4" ID w/ check valve.
- using check valve to lift; tubing @ TD.
1336 - ICON pulled tubing up to approx. 70' BLS
1430 - Purged total of 6 gallons from CD-14B (60-80')
- Begin Sampling → ERM collecting split samples

ERM Ultrameter Readings

TIME	pH (su)	Conductivity	Temp. (°C)	Turb.	ORP	TDS	Gal
1308 ~~1306~~	6.76	32.86 mS/cm	29.8	—	129	2600 ppm	INIT.
1316 ~~1308~~	6.79	14.90 mS/cm	29.5	—	-58	13.96 ppt	1.0
1323 ~~1316~~	6.80	18.91	29.4	—	-114	18.47	2.0
1336 ~~1323~~	6.80	19.48	28.8	—	-118	19.12	3.0
1350 ~~1336~~	6.77	21.02	29.5	—	-99	20.90	4.0
1410 ~~1350~~	6.80	20.07	30.8	—	-102	20.57	5.0
1429 ~~1410~~	6.87	20.87	30.2	—	-100	20.64	6.0

1430 - SAMPLE
1540 - ICON + ERM concluded collecting GW samples
1550 - ICON set back up on CD-14A; Drilling down w/ 2 1/4" barrels through 3 1/4" casing.
1557 - ICON to depth; ran well material downhole; pulled all 2 1/4" barrels out - left 3 1/4" casing.

CD-14A Well Details:
Screen Interval: (30-40') BLS - 0.006" slotted Screen (PVC) w/ Filter sock attached to 1 1/4" PVC riser w/ black electric tape
Native: 28' BLS
Sand: None
Bentonite Pellets: 25' BLS → left Casing @ 23' BLS

- ICON leaving well over night; will grout CD-14A + pull CD-14B and grout tomorrow
1630 - Done for day - left Site

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.

Groundwater Field Parameter Data
Project Name: 1009.AZS/CASTEX
Project No. _____
Sampled By: _____

Rev: 2/17

Well# / Size	Time	Temp. °C	DO%	DO mg/l	~~Specific Conductivity~~ TDS mS/cm	Conductivity ~~mS~~ µS/cm	pH SU	pH MV	ORP MV	Turbidity NTU	Vol. Purged
ID-12A	1130	TUBING APPRX 1' FROM T.D., PUMP ON									
Date	1131	25.2			399	578	7.38		-71	48	1.05
6/13/22	1140	24.2			304	445	6.61		-22	54	0.5
Total Depth	1145	24.1			266	392	6.42		50	11	1.0
18.25	1150	23.9			258	381	6.32		50	5	1.5
Water Level	1235	FINISHED SAMPLING PUMP OFF									
8.47'											
Volume											
Stick Up											
1.65											
GPS											
Sample Time											
1200	Number of times dried: 0				Analyses:						

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.

Groundwater Field Parameter Data
Project Name: CASTEX
Project No. 1009.A25
Sampled By: DC

Rev: 2/17

Well# / Size	Time	Temp. °C	DO%	DO mg/l	TDS Specific Conductivity mS/cm	Conductivity mS/cm	pH SU	pH MV	ORP MV	Turbidity NTU	Vol. Purged
CD-12B	1325	TUBING SET 1' ABOVE TD, PUMP ON									
Date	1330	26.4			391	575	7.37			24	1.0
6/13/22	1332	25.7			393	577	7.31			22	0.5
Total Depth	1336	27.0			393	577	7.29			7	1.0
39.4	1338	25.4			396	578	7.32			4	1.5
Water Level 8.32	1341	25.0			396	576	7.36			3	2.0
[redacted]	1344	25.0			393	575	7.31			2	2.5
Volume		PUMP OFF									
Stick Up											
1.5											
GPS											
Sample Time											
1350	Number of times dried: 0				Analyses:						

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.

Groundwater Field Parameter Data
Project Name: CASTEX
Project No. 1009.473
Sampled By: DCL

Rev: 2/17

Well# / Size	Time	Temp. °C	DO%	DO mg/l	Specific Conductivity mS/cm	Conductivity mS/cm	pH SU	pH MV	ORP MV	Turbidity NTU	Vol. Purged
CD-13A (22-32)	1520	TUBI	DA	SET	APPRX	1'	FROM	TD	PUMP	OD	
Date	1522	29.0			728	1035	7.07		4	26	1.0
6/13/22	1530	25.8			776	1101	7.00		17	012	0.5
Total Depth	1536	26.3			803	1136	7.01		-2	7	1.0
33.75	1540	25.7			809	1142	7.01		3	3	1.5
Water Level											
20.22											
Volume											
Stick Up											
2.1'											
GPS											
Sample Time											
1545	Number of times dried: ~~2~~				Analyses:						

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.

Groundwater Field Parameter Data
Project Name: CASTEX
Project No. 1009.A75
Sampled By: DLC

Rev: 2/17

Well# / Size	Time	Temp. °C	DO%	DO mg/l	~~Specific~~ TDS Conductivity mS/cm	Conductivity mS/cm	pH SU	pH MV	ORP MV	Turbidity NTU	Vol. Purged
CD-13B	1630										
Date	1633	27.8			915	1290	7.76		-39	0R	1.5
6/13/22	1637	25.6			919	1293	7.46		-106	5	0.5
Total Depth	1641	25.7			930	1308	7.33		-108	2	1.0
43.34	1647	25.6			937	1317	7.28		-118	2	1.5
Water Level	1651	25.1			940	1320	7.28		-111	3	2.0
19.70											
Volume											
Stick Up											
2.00											
GPS											
Sample Time											
1700	Number of times dried:				Analyses:						

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.

Groundwater Field Parameter Data
Project Name: Castex Development
Project No. 1009.475
Sampled By: ICON - (ERM Split)

Rev: 2/17

Well# / Size	Time	Temp. °C	DO%	~~DO mg/l~~ TDS	~~Specific Conductivity mS/cm~~	Conductivity mS/cm	pH SU	~~pH MV~~	ORP MV	Turbidity NTU	Vol. Purged
CD-14 B (60-80') 3/4" PVC	1306	— Pump on		—							
Date	1308	33.2		580 ppm		905 mS/cm	5.99		164	—	Initial
6-13-22	13:16	29.4		13.63 ppt		16:30	5.94		48	—	1 gal
Total Depth	1323	29.2		18.35 ppt		21.09	6.02		-22	O.R.	2 gal
80.68'	1336	28.9		19.15 ppt		21.80	6.31		-53	O.R.	3 gal
Water Level	13:50	30.6		20.90 ppt		23.63	6.46		-50	15	4 gal
23.85'	14:10	25.0		24.81 ppt		26.97	6.51		-54	30.5	5 gal
Volume	14:29	22.4		24.72 ppt		26.83	6.67		-61	11.2	6 gal
1.29 gal.	14:30	—	—	—	SAMPLE	TIME	—	—	—	—	
Stick Up											
1.30'											
GPS											
Sample Time											
14:30	Number of times dried: 0x				Analyses: Full Kit						

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: _____

Project Name: CASTEX

Project Location: SENDWKS

Project No.: 1009.A75

Date: 6/13/22

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@0900 - LEFT OFFICE, TRUCK # 28
@1030 - ARRIVED AT CD-4 AREA
@1100 - KATIE C & DAVID S. ARRIVED ON SITE
@1120 - SETUP ON CD-12A TO BEGIN PURGING WITH PERISTALTIC PUMP
@1200 - PURGED 1.5 gal, BEGAN SAMPLING
- PUMP OFF
@1325 - SETUP TO BEGIN PURGING CD-12B
- PURGED APPRX 2.5 gal
@1350 - BEGAN SAMPLING
@1415 - FINISHED SAMPLING
@1445 - MOVED TO CD-10C
- WATER LEVEL TOO LOW TO SAMPLE
@1510 - SETUP ON CD-13A WITH PERISTOLTIC PUMP
@1520 - BEGAN PURGING
@1540 - PURGED 1.5 gal
@1615 - FINISHED SAMPLING, SETUP ON CD-13B BEGAN PURGING
- BEGAN SAMPLING
- FINISHED SAMPLING LEFT SITE
- ARRIVED AT OFFICE

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow + Lewis
Project Name: Castex Development, LLC
Project Location: Mermentau, LA

Project No.: ~~to~~ 1009.A75
Date: 6-14-20
Page 1 of 2

0615 - RL left Rayne, LA (Truck 36)
700 - Arrived onsite
- Charles Trahan w/ ERM onsite
- Geff Miller, Dylan White onsite
730 - ICON set up on CD-14A; started pulling 3¼" casing
- Ran ¾" PVC tremie pipe down borehole to grout monitor well annulus.
745 - Grout w/ approx. 1½ gallons of portland bentonite slurry until grout to surface.
800 - Moved rig over onto CD-14B; pulling temporary well w/ hydraulic winch on geoprobe.
810 - Pulled CD14B temp well - riser and screen; pulling 2¼" casing.
818 - Completed pulling 2¼" casing; ICON ran ¾" PVC tremie pipe down borehole to approx. 59' BLS.
- Grouted borehole w/ approx. 24 gallons of portland/bentonite slurry by gravity feed through ¾" PVC tremie pipe until grout to surface
850 - Completed grouting; loading up geoprobe rig and equipment to make to next location.
- moved to next location
950 - Arrived @ staging area near CD-2 + CD-11 locations; ICON unloaded rig and began traveling geoprobe to location East of staging area; traveling down pipeline right-of-way
1010 - ICON set up on CD-15 location; just off of Pipeline ROW
- Setting up to install EC probe.
1100 - ICON began installing CD-15 EC probe
Field Coordinates: 30.18802685, ~~[illegible]~~ -92.61371998
1120 - Completed installation of EC probe; Highest EC = 271 mS/m @ 8.45' BLS
1130 - Break for lunch - TD = 97.4' BLS
1255 - ICON set back up on CD-15 EC probe hole; Started pulling EC probe tooling.
1310 - ICON pulled EC probe tooling to surface; ~~as probe~~ w/ probe nearly all the way out of the hole ~~[illegible]~~ Gas was audibly noted venting from the borehole.
- ICON shutting down to let borehole vent.

On-Site
Ryan L. - HET
Charles Trahan - ERM
Geff Miller
Dylan White } ICON
Chris Miller
GW Sampling Crew
Katie Cummins - ICON
David Sanguinetti - ERM
Daryl Carol - HET
* See DCC notes *

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow & Lewis
Project Name: Castex Development, LLC
Project Location: Mermentau, LA

Project No.: 1009.#75
Date: 6-14-22
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1345 - CO-15 EC probe borehole no longer venting; ICON re-entering hole w/ 2½" solid stem augers to grout.
~~1430~~ - Geoprobe overheating occasionally; so ICON waiting to let it cool down each time.
1515 - ICON @ ≈ 79' BLS; began pulling ~~the~~ augers out of hole; throwing all soil cuttings from augering into the grass/trees surrounding the location; no soil was containerized.
1530 - all augers pulled; ICON immediately ran 3/4" PVC tremie pipe down same borehole; got Tremie down to approx. 78' BLS
1553 - Completed grouting, grout w/ approx. 35 gallons of portland/bentonite slurry by gravity feed through 3/4" PVC tremie pipe until grout to surface.
1600 - Done for the day
- Left Site

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.

Groundwater Field Parameter Data
Project Name: CASTEX
Project No. 1009.475
Sampled By: DLC

Rev: 2/17

Well# / Size	Time	Temp. °C	DO%	DO mg/l	TDS ~~Specific Conductivity mS/cm~~	Conductivity ~~mS/cm~~ µ	pH SU	pH MV	ORP MV	Turbidity NTU	Vol. Purged
CD-13C	0810	CHECK SET ON TURBIDY									
Date	0822	27.6				2908	8.31			OK	0.5
6/14/22	0828	25.4				2747	8.07			OK	1.0
Total Depth	0838	25.5				2171	7.76			OK	1.5
69.59	0848	28.4				1375	7.88			OK	2.0
Water Level	0857	26.0				1039	7.75			OK	2.5
48.1											
Volume	1010	FINISHED SAMPLING									
Stick Up	~~*~~ WELL PRODUCED LITTLE WATER										
2.77											
GPS											
Sample Time											
0900	Number of times dried: 15				Analyses:						

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.

Groundwater Field Parameter Data
Project Name: CASTEX
Project No. 1009.A75
Sampled By: DCC

Rev: 2/17

Well# / Size	Time	Temp. °C	DO%	DO mg/l	TDS Specific Conductivity mS/cm	Conductivity mS/cm	pH SU	pH MV	ORP MV	Turbidity NTU	Vol. Purged
CD-14A 30-60	1050	29.2			1410	1929	7.29		-50	3	1.5
Date	1052	26.7			1164	1610	7.37		-20	7	0.5
6/14/22	1055	26.3			1115	1550	7.30		-69	3	1.0
Total Depth	1058	25.9			954	1349	7.22		-82	12	1.5
41.83	1100	24.3			953	1340	7.30		-76	4	2.0
Water Level											
17.02											
Volume	1105	Pump	OFF/FINISHED		Purging						
Stick Up											
2.35											
GPS											
Sample Time											
1105	Number of times dried: 0				Analyses:						

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client : _____ Project No.: 1009.A75

Project Name: _____ Date: 6/14/22

Project Location: _____ Page _____ of _____

@0700 - LEFT OFFICE, TRUCK #33
@0750 - ARRIVED ON SITE
- SETUP TO BEGIN SAMPLING CD-13C
@0900 - PURGED 2.5 gal BEGAN SAMPLING
@1010 - FINISHED SAMPLING, PULLED TUBING
@1040 - SETUP ON CD-14A, BEGAN PURGING WITH PERISTALTIC PUMP
@1105 - PURGED APPRX 2.0 gal OF WATER AND BEGAN SAMPLING
@1200 - FINISHED SAMPLING, PULLED TUBING
@1230 - LEFT SITE
@1430 - ARRIVED AT OFFICE

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants
620 Apollo Road
Scott, Louisiana 70583
(337) 261-1963 Fax (337) 261-1953

BORING No. CD-15

PROJECT NAME: Castex
PROJECT NUMBER: 1009.A75
LOCATION: Mermentau La
DRILLING METHOD: Geoprobe 7822DT
SAMPLING METHOD: 2 1/4" x 4' dual tube
GROUND ELEVATION:
TOP OF CASING:
LOGGED BY: DJW
REMARKS: 30.18801 92.61375 29' Total Depth: 98'

DATE STARTED: 6-15-22
DATE COMPLETED:
CASING TYPE/DIAMETER: PVC 3/4"
SCREEN TYPE/SLOT: PVC 0.006" w/ filter sock
SAND PACK TYPE: 20/4
GROUT TYPE/QUANTITY:
DEPTH TO WATER:
GROUNDWATER ELEVATION:

RECOVERY	PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE ID	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONDUCTIVITY ms/cm	PICTURE
			800			2	0-1.3		silty Clay, brown, low mt, mod dk, fr	0.25	1
3.0'			805			4	1.3-3.0		Clay, brown & dark gry, low mt, mod to high dk, fr	1.01	2
			810			6	0-2		Clay, brown + gry, low mt, mod to high dk, fr, mn	1.92	3
4.0			815			8	2-3.3 3.3-4.0		silty Clay, lt gry + brown, low mt, mod to high dk, fr, mn Silt brown + tan, low mt, mod dk, fr, mn	2.49	4
			820			10			Clay, brown + lt gry, low mt, mod to high dk, mn, ca @ 3'	3.05	5
4.0			825			12				2.65	6
			830			14			Clay, brown + lt gry, low mt, mod to high dk, fr, ca @ 0.1-0.2', mn	2.49	7
4.0			835			16				2.13	8
2.4'			840			18			Clay, tan + lt gry, low mt, low to mod dk, fr, mn silt lens @ 2.15 + 2.25' (0.01' thick)	1.67	9
2.4'			845			20			Clay, tan + lt gry, low mt, low to mod dk, silt lens throughout > 1/4" thick	2.02	9
2.4			850			22			Clay as above shell	2.25	10
2.5			855			24	0-0.6 0.6-2.5		as above Clay w/ silt brownish gry, mod moist to saturated, low dk, shell @ 2.4'	0.87	11
2.1			900			26	0-0.5 0.5-2.1		as above Clay, brown + gry, low mt, mod dk, fr, mn, silt lens throughout	2.21	12
2.5			905			28	0-2 2-2.5		as above Clay w/ silt brown + gry, mod to saturated, low dk	2.12	13
2.5			910			30			silt, brown, saturated, low dk, clay lense 0.8-1.1'	0.90	14
4.0	CD-15A		915			32	0-3.2 3.2-4.0		silt, brown, saturated, low dk (minor clay 2.7-3.2 Clay, gray + brown, low mt, low to mod dk, minor silt water	1.03	15 16
2.4			920			34	0-0.8 0.8-2.4		clay, gray + brown, low mt, low to mod dk silt brown, saturated, low dk, clay lens @ 1.6-1.8'	1.05	17
3.7			925			36			silt, brown, saturated, low dk, minor VFG sand	0.74	18
3.7			930			38			VFG sandy silt, brown, saturated, low dk,	0.77	19 20
3.7			935						silt, minor VFG sand, brown saturated, low dk	0.74	21 22

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants
91 Apollo Road
Scott, Louisiana 70583
(337) 261-1963 Fax (337) 261-1953

BORING No. CD-15

PROJECT NAME: Castex
PROJECT NUMBER: 1005.A75
LOCATION: Mermentau La
DRILLING METHOD: Geoprobe 7822DT
SAMPLING METHOD: 2 1/4" x 4' dual tube
GROUND ELEVATION: —
TOP OF CASING: —
LOGGED BY: DJW
REMARKS: 30.18801 92.6137525'

DATE STARTED: 6-15-22
DATE COMPLETED:
CASING TYPE/DIAMETER: PVC 3/4"
SCREEN TYPE/SLOT: PVC 0.006" w/filter sock
SAND PACK TYPE: 20/40
GROUT TYPE/QUANTITY:
DEPTH TO WATER: —
GROUNDWATER ELEVATION: —
Total Depth: 98 ft

PID (ppm)		SAMPLE TIME	SAMPLE	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION		
3.4	CD-15	1000			42			Silt, brown, saturated, low dens.	0.25	23 24
3.6		1005			44			Silt, brown, saturated, low dens, minor clay	0.73	25 26
3.7		1010			46			as above	0.76	27 28
2.8		1015			48	0-0.2 0.2-1.25 1.25-1.9 1.9-2.8		as above Clay, gray, brown, low mot, low dens Clay/silt, brown/gray, saturated, low dens Clay, gray, low mot, low dens	0.95	29
4.0		1020			50			Clay, gray, low mot, low to mod dens, organics @ 3.4-4.0	1.43	30 31
2.4		1025			52	0-1 1-2.4		Clay, as above, silt lm @ 0.6-0.7' Clay/sy silt, brown, saturated, low dens, clay lm 1.75-1.9'	0.64	32
3.6		1030			54	0-3.1 3.1-3.6		Silt, brown, saturated, low dens, clay lm 1.75-1.9, 2.5-2.6 Silty clay, brown, low mot, low dens, silt nodules	0.49	33 34
3.6		1035			56			Silt, brown, saturated, low dens	0.40	35 36
3.6		1040			58			Clay, gray, low mot, low to mod dens, silt nodules @ 0.5, wood @ 3'	1.28	37 38
3.6		1045			60			Clay, gray, low mot, low to mod dens, organics	1.29	39 40
2.9		1050			62			Clay, gray, low mot, low to mod dens, minor silt	0.88	41
2.1		1055			64	0-1.8 1.8-2.1		as above Silt, brown/gray, saturated, low dens	1.08	42
3.8		1100			66	0-2.5 2.5-3.8		as above. Silt, mod clay, gray, mod mot, low dens	0.49	43 44
4.0		1105			68	0-3.8 3.8-4.0		Silt, minor to mod clay content, gray, saturated, low dens Clay, gray, low mot, low dens	0.54	45 46
2.4		1110			70			Clay, gray, low mot, low to mod dens, minor silt @ 0-0.5'	0.92	47
4.0		1115			72			Clay, gray, low mot, low to mod dens	1.35	48 49
					74					
					76					
78-98'					78					
					80					

Screen 28-38' (Natural 28ft, 20/40 sand 2.5ft, pellets)
Did not sample below 72 ft
Screen 38-48' (Natural 33') pellets 1ft)
Screen 78-98' (pulled well + grout)

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow + Lewis
Project Name: Castex
Project Location: Mermentau, La

Project No.: 1009.A75
Date: 6-15-22
Page 1 of

630 left office — Dan - HET #32
715 arrival on site
met w/ Geoff, Dylan, Jay, Chris - Ikon
Charles Trahan - ERM
Ikon setting to install boring @ CD-15 using Geoprobe 7822DT
30.18801 92.61375 ±9'
750 started pushing 2¼" x 4' dual tubes to depth of 72 ft BLS
logged + sealed allcores - did not collect any samples for lab analysis
pulled all 2¼" rods - added expendable point
pushed down to 98 ft BLS
added 4 - 3¼" x 5' screens 0.006" slot w/ filter - attached to riser to surface
screen interval 78-98
well is venting
attempted to pull well - 20' of screen - filter sock broke off in hole
placed tremie @ ≈ 40 ft BLS to grout
well pushed all grout out hole
pushed down 2¼" barrels w/ expendible point to 76 ft BLS
filled barrels w/ grout - pulled & topped off till grouted to surface
used ≈ 32 gallons grout - 7-8 buckets
moved over to begin setting wells
CD-15B pushed 2¼" x 4' rods w/ expendible point to 418 ft BLS
added 2 - 3¼" x 5' screens w/ filtersock adhered to riser w/ electrical tape - riser to surface
pulled 2¼" rods - Native @ 33 ft - ¼" coated bentonite pellets @ 17 ft BLS
moved over to set shallow well
CD-15A pushed 2¼" rods w/ expendible point to 38 ft BLS
added 2 - 3¼" x 5' screens w/ filtersock adhered to riser w/ electrical tape
pulled 2¼" rods - Native @ 28 ft, 20/40 sand to 20 ft BLS, ¼" coated bentonite pellets @ 18 ft BLS - let hydrate overnight
Ikon decontaminating equipment

1600 left site
1645 arrival @ office

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow & Lewis
Project Name: Castex
Project Location: Mermentau, La

Project No.: 1009.A75
Date: 6-16-22
Page 1 of

630 left office — Don - HET #32
715 arrived on site
met w/ Geoff, Jay, Dylan - Ikon
Charles - ERM
setup to grout wells
CD-15B
tremie @ 15 ft BGL - used ≈ 3 gallons grout (partial water)
CD-15A
tremie @ 10 ft BGL - used ≈ 3 gallons grout (partial water)
grout all to surface

mobbed to CD-5
setup adjacent to previously installed boring
used 3" Augers & drilled to 99 ft BGL
all cuttings generated during drilling thrown on ground
pulled All Augers - back to TD w/ 2 1/4" barrel + expendable point
pushed 2 1/4" barrels to 110 ft BGL - 8 gallons water added
3 - 3/4" x 5' screen w/ sock (0.006" slot) attached to riser - removed 16 ft of 2 1/4" barrel
W/L 68.02' BTOC - barrel @ 94' BGL
left site — Stickup 2.7'

1214	w/l	67.99
1230	"	68.02
1257	"	67.01
1312		68.00
1322		67.99
1334		67.99

1342 Begin purging well w/ peristaltic pump - tubing @ TD
TD: 112.25 BTOC Stickup: 2.7 ft. W/L: 67.99' BTOC
Ikon + ERM filled all Jars

1555	finished sample	
1559	W/L	= 67.98
1611	"	= 67.98
1621		= 67.99
1630	left site	

1715 arrived @ office - restocked supplies

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.

Groundwater Field Parameter Data
Project Name: Castex
Project No. 1009.475
Sampled By: SRM

Rev: 2/17

Well# / Size 95-110'	Time	Temp. °C	DO%	DO mg/l	Specific Conductivity mS/cm	Conductivity mS/cm	pH SU	TDS ~~pH~~ ~~MV~~	ORP MV	Turbidity NTU	Vol. Purged
CD-5D 3/4"	1344	31.5			3.65.2		7.45	248.4	27	–	initial
Date	1352	26.1			484.5		7.84	336.6	-210	–	1
6-16-22	1400	25.5			513.6		7.83	357.6	-248	–	2
Total Depth	1412	25.5			581.8		7.91	408.8	-258	–	3
112.25	1423	24.8			565.1		7.91	396.8	-269	–	4
Water Level	1432	24.9			565.8		7.81	397.2	-233	–	5
67.99	1445	25.7			565.1		7.76	396.1	-191	–	6
Volume	1455	25.1			559.1		7.71	391.4	-209	–	7
1.02	1502	26.1			556.3		7.68	388.1	-198	–	8
Stick Up											
2.7'											
GPS											
Sample Time											

Number of times dried:

Analyses:

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.

Groundwater Field Parameter Data
Project Name: Castex
Project No. 1009.A25
Sampled By: Icm

Re

Well# / Size (≈95-110') <D-5D 3/4"	Time	Temp. °C	DO%	DO mg/l	Specific Conductivity mS/cm	Conductivity µS/cm	pH SU	TDS ~~pH MV~~ ppm	ORP MV	Turbidity NTU	Vol. Purged
	1344	31.1				529	6.27	330	122	–	initial
Date	1352	24.1				562	7.13	357	-103	–	1
6-16-22	1400	26.5				556	7.14	352	-148	–	2
Total Depth	1412	26.0				641	7.25	410	-150	–	3
112.25	1423	26.0				615	7.27	389	-164	OR	4
Water Level	1431	25.7				610	7.30	387	-153	OR	5
62.99	1445	26.2				611	7.32	387	-96	OR	6
Volume	1455	26.4				606	7.30	384	-111	–	7
1.0 gallon	1502	26.7				603	7.27	382	-106	OR	8
Stick Up											
2.7'											
GPS											
Sample Time											
1510	Number of times dried:				Analyses:						

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow + Lewis
Project Name: Castex
Project Location: Mermentau, La

Project No.: 1009.475
Date: 6-17-22
Page 1 of

630 left office — Don-HET #32
715 arrival on-site
met w/ Geoff, Jay, Dylan
Charles Tekm
Dylan + Jay setup to grout - CD-5D (95-100') W/L: 67.95' BTOC (715)
Geoff setup to collect glycol samples from CD15A+B
742 begin purging CD15A
tubing @ TD of well — pump Broke
mobbed to CD-5D
Tremie pulled + screen, riser + filter sock
placed tremie down 2½" Barrels to 97 FABCO
mixed portland cement, bentonite - poured thru tremie
12 buckets ≈ 45 gallons grout
Team deconning equipment

CD-15A
TD: 39.74'
W/L: 18.36
Stickup: 1.96'

930 left site
1015 arrival @ office

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow & Lewis
Project Name: Castex Development, LLC
Project Location: Mermentau, LA

Project No.: 1009.175
Date: 6-20-22
Page 1 of 2

900 - KL left HET office (Truck 36)
- Stopped for food / drinks
945 - Arrived onsite
1000 - Jay Culpepper + Geoff Miller of ICON arrived onsite
- Marcus Smith w/ ERM onsite
1015 - Dylan White w/ ICON onsite
- ICON prepping equipment / rig for today's work
1045 - ICON set up Geoprobe 7822 DT on CD-10 locations

On-site
Ryan L. - HET
Geoff Miller
Jay Culpepper } ICON
Dylan White
Marcus Smith - ERM

1100 - ICON started installing CD-10D temporary monitor well; ICON augering down to approx. 70' BLS w/ 2½" solid stem augers.
1145 - ICON breaks for lunch - left rig and down
1245 - Resumed augering
1255 - ICON completed augering; pulling augers out of hole; ICON discarding soil cuttings from augering in the grass next to the location; not containerizing soil cuttings.
1320 - Pulled augers; going back into same borehole w/ 2¼" barrels
1400 - Pushed down to 82' BLS w/ 2¼" barrels →
- Ran well material downhole -
CD-10D → Details: Temporary Well
- Screen Interval: - (67-82') BLS - 0.006" PVC slotted screen w/ filter sock secured w/ black electric tape
- 3/4" PVC riser
1410 - ICON started pulling 2¼" barrels - well coming up w/ barrels - poured approx. 12 gallons of water downhole to try to let well fall; could not get well to stay in hole - continued to come up as ICON pulled barrels.
1420 - ICON pulling well material out of hole ~~[illegible]~~ - going to attempt to reset well in same hole.
- Pulled 2¼" barrels out of hole.
- Went right back into same borehole w/ 2¼" barrels again.
1515 - ICON ran well material downhole
- Poured approx. 13 gallons of water in hole. to help well stay down.
1520 - started pulling barrels; well stayed in hole. but came up approx 1-2' before ICON pushed it back down.

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow & Lewis
Project Name: Castex Development, LLC
Project Location: Mermentau, LA

Project No.: 1009.A75
Date: 6-20-22
Page 2 of 2

1523 - CD-10D Temporary Well Details:
- (67-82') - Screened Interval - 0.006" PVC Slotted screen w/ filter sock
  Secured to 3/4" PVC riser w/ black electric tape.
- No Sand / Bentonite Pellets.
- Casing @ 66' BLS.

1528 - CD-10D (67-82') Water Level Reading 39.92' below T.O.C.
1545 - CD-10D (67-82') water Level → 44.61' below T.O.C.
1600 - CD-10D (67-82') water Level 47.20' below T.O.C.
1615 - CD-10D (67-82') water Level 49.01' below T.O.C.
1629 - CD-10D (67-82') water Level 50.68' below T.O.C.

1635 - water level continuing to drop / not equalizing; I can will let head stabilize overnight, then water sample in the morning.

1645 - left site

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow & Lewis
Project Name: Castex Development, LLC
Project Location: Mermentau, LA

Project No.: 1009.475
Date: 6-21-22
Page 1 of 2

On-Site
Ryan L. - HET
Mason Smith - ERM
Geoff Miller
Dylan White } ICON
Jay Culpepper

620 - HL left Rayne, LA (Truck 36)
705 - Arrived onsite
- Geoff Miller, Jay Culpepper, Dylan White w/ ICON onsite
- Mason Smith w/ ERM onsite
- ICON collecting water level from CD-10D(
DTW: 73.04' below TOC.
- Dylan & Jay completing well pads.
710 - Pump on to ground water sample.

TIME	Temp	Cond (ms)	pH	ORP	TDS	Turb.	Vol.
710	27.8	418	6.38	-173	261	-	initial
716	- Pump off - Dry @ 0.25 gal.						
726	- Pump on - low flow						
729	- Pulled well tubing - placed tubing in test bag next to well						
730	- Pump on again						
730	24.7	415	7.04	-425	263	OR	0.5 Dry

732 - DTW - 79.60' Below TOC
- Let well recharge
800 - DTW - 76.25' Below TOC

808	25.5	429	7.13	-242	269	OR	≈0.05 (Dry)
840	25.5	442	7.63	-221	278	OR	≈0.75 (Dry

- Pump off; let well recharge.
858 - DTW - 81.10' Below TOC
915 - DTW - 79.20 Below TOC
929 - DTW - 77.78' Below TOC
955 - DTW - 75.29 Below TOC

1000 - Sample TIME - ERM collecting split samples.
- Well dry quickly, wait to let recharge.

1115 - Continue sampling
1120 - Well dry - let well recharge.
- take lunch break.

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Listow + Lewis
Project Name: Castex Development, LLC
Project Location: Mermentau, LA

Project No.: 1009.475
Date: 6-21-22
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1230 - Pump on - Continued sampling until well dried ≈ 1 liter of water
- turned off pump - wait for well to recharge
1330 - Dylan and Jay finished w/ well completions; loaded up Geoprobe from CD-10 location and moved to CD-15 location.
- they are going to set up to auger pilot hole for a new well installation.
1400 - Pump on - collected water samples = ≈ 1 liter
1405 - wait for well to recharge.
1530 - Pump on; resumed sampling
1600 - Completed water sampling; JCOW cleaning up area around well.
- Left site

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Cirkour Lewis
Project Name: Castex Development, LLC
Project Location: Mermentau, LA

Project No.: 1009.475
Date: 6-22-22
Page 1 of 2

On-Site
Ryan L. - HET
Mason Smith - ERM
Geoff Miller
Jay Culpepper / ICON
Dylan White

0620 - RL left Rayne LA (Truck 36)
0655 - arrived onsite
- Geoff Miller onsite
730 - ICON setting up on CD-15 location w/ Geoprobe 7822 DT rig, setting a permanent monitor well
7:40 - Began augering @ CD-10 w/ 2 1/2" solid stem augers.
850 - ICON augered down to 65' BLS; started pulling augers
915 - Completed pulling augers; ICON discarding soil cuttings on the ground next to rig, not containerizing soil cuttings.
930 - ICON started pushing 3 1/4" casing in same borehole.
- pushed 3 1/4" casing to 63' BLS
940 - ICON leaving casing in the ground - moving geoprobe back to CD-10D location to pull and grout temporary monitor well - ICON doesn't have enough 2 1/4" pipe to set CD-15 well without grouting CD-10D
1030 - ICON set up on CD-10D - to grout
- pulled well material; ran 3/4" PVC tremme pipe downhole through 2 1/4" barrels / casing
- pulled all 2 1/4" barrels.
- grouted by gravity feed method through 3/4" PVC tremme pipe from bottom up w/ ≈ 48 gallons of portland / bentonite slurry until grout to surface.
1145 - Completed grouting; decoring pipe and equipment.
- will top off grout after decon.
1145 - Break for lunch
1315 - ICON loading up rig to move to CD-15
- Unloaded rig
1340 - Set up on CD-15 location; ICON pushing 2 1/4" barrels downhole inside of 3 1/4" casing
1405 - @ TD; running well material downhole; poured ≈ 2 gallons of water in casing
1410 - Pulling 2 1/4" pipe.
1425 - Pipe out - measuring retrieve and adding Sand / Pellets.

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow & Lewis
Project Name: Castex Development, LLC
Project Location: Mermentau, LA

Project No.: 1009.475
Date: 6-22-22
Page 2 of 2

~~CD-10~~ CD-15C (63-68') well details:
Screen - (63-68') → 0.006" slotted PVC screen w/ Filter sock covered to
Native Material - 62' BLS 3/4" PVC riser w/ black electric tape.
NO SAND
Bentonite Pellets: - 59' BLS
- Casing @ 57' BLS

1445 - CD-15C well set -
1450 - ICON setting up to Grab water sample CD-10A (28-38')
1456 - DTW ~~[illegible]~~ 17.93' below TOC
- Total Depth 39.20'
- Stickup - 1.25'
1500 - Pump on - CD-15A (28-38')

TIME	temp.	Cond(ms)	pH	ORP	TDS	Turb.	Volume
1503	28.8	1754	5.96	102	1170	-	initial
1510	23.1	1709	6.67	-6	1150	20.1	1 gal
1516	23.7	1693	6.87	-4	1143	10.63	1.5 gal
1521	22.9	1694	6.86	-30	1135	9.37	2 gal
1525	22.8	1685	6.87	-34	1128	9.87	2.5 gal

- ICONs parameters collected w/ multimeter
1530 - Sample time - ERM collecting split samples.
1615 - completed collecting groundwater samples
- Pick-up equipment; left site

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow + Lewis
Project Name: Castex Development, LLC
Project Location: Mermentau, LA

Project No.: 1009.A75
Date: 6-23-22
Page 1 of 2

6:20 - RL left Rayne, LA (Truck 36)
7:00 - Arrived onsite
- ICON + ERM onsite
- ICON warming up geoprobe
7:15 - ICON started grouting CD-15C (63-68');
- Ran 3¼" PVC tremme pipe down hole inside of 3¼" barrels; grouted by gravity feed method through ¾" PVC tremme pipe w/ ≈ gallons of portland/bentonite slurry until grout to surface.
- pulling 3¼" casing as needed.
8:00 - completed grouting CD-15C; washing pipe
8:50 - ICON going work on well completions.
10:00 - ICON set up on CD-15C (63-68') to groundwater sample.
- run tubing down well w/ check valve.

On-Site
Ryan L. - HET
Matthew Smith - ERM
Geoff Miller } ICON
Jay Culpepper

CD-15C

D.T.W - 25.36' TD = 69.22' Stick-up: 1.31'

TIME	temp	cond. (mS)	pH	TDS (ppm)	Turb.	Vol.
1016	28.1	641	6.03	407	—	initial
1021	24.8	744	6.72	478	—	0.5 gal
1030	25.0	649	7.51	415	52	1 gal (Dry)
	- Pump off		-			
1046	25.4	654	7.60	418	—	1.25 gal (Dry)
	— Pump off					

1050 - DTW - 55.08' below TOC
1100 - DTW - 49.31' below TOC

1210 - Sample time
- Triple filtered metal - Turb ≈ 2.0

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Client: Liskow & Lewis
Project Name: Castex Development, LLC
Project Location: Mermentau, LA

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1050 - Set up on CD-15B to purge / sample while CD-15C recharges.

CD-15B
DTW - 17.97' TD = 49.05' S.U. 1.30'

TIME	Temp	Cond.	pH	ORP	TDS	Turb.	Vol.
1054	27.0	1433	7.28	-62	943	—	Initial
1057	23.0	1415	7.16	-124	938	32.5	0.5 gal
1104	23.0	1413	7.02	-143	938	6.59	1.0 gal
1110	22.8	1415	6.99	-135	939	2.94	1.5 gal
1115	22.6	1414	6.94	-132	938	3.72	2.0 gal
1120	22.7	1414	6.87	-125	938	3.77	2.5 gal

1130 ← Sample TIME
- ERM collecting split samples.

1210 - Sample CD-15C
1245 - Completed sampling CD-15C

1300 - Left Site

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Client: Liskow + Lewis
Project Name: Castex Development, LLC
Project Location: Mermentau, LA

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800 - RL left HET office in Truck 30
- Stopped for gas / drinks
900 - Arrived onsite
- Marcus Smith w/ ERM onsite
930 - Drew Campbell w/ ICON onsite
- unloaded ICON SxS and prepped to conduct slug testing.
1000 - Set up on CD-3A (27-42'); opened well
1004 - Measured DTW
DTW - 16.58' below TOC
1006 - Dropped transducer in well; @ ≈ 25' below TOC
1036 - CD-3A (27-42').
- Started logging / test
1041 - added 8oz of water - poured into well through funnel
- Let well equalize.
1056 - added 8oz of water - takes ≈ 3-4 seconds to pour water downhole.
let equalize
1118 - added 8oz of water
let equalize
1146 - stopped - logging / test
1150 - ICON packed up equipment
- moved to CD-2 location
1155 - Arrived on CD-2 location. - opened wells.
1202 - CD-2A (33-43') - D.T.W. = 18.20' below TOC
- Ran transducer down CD-2A to ≈ 25' below TOC
1211 - Started test
1215 - Poured 8oz of water
- let equalize.
1230 - Poured 8oz of water
- let equalize
1245 - Poured 8oz of water
- let equalize.
1303 - Stopped test
1320 - Break for lunch
1405 - Set back up on CD-2 location

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Project Name: Castex Development, LLC
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1410 - CD-2B (58-68') ~~opened~~ well. already opened from earlier
- DTW - 28.88' - below TOC
- ICON setting up to do ~~pump~~ pump test
1418 - Ran tubing (3/8" OD x 1/4" ID) downhole; ~~conn~~ hooked up peristaltic pump.
1430 - Pump on CD-2B - ICON collecting water level measurement every (5) minutes; also every (5) minutes, measuring the amount of time it takes to pump 250 mL of water to determine flow rate. (trying to maintain consistent flow rate).

TIME		DTW below TOC	Volume	Time to pump 250 mL well
1430		29.48	250 mL	0:29.23
	Slow down	Pump		
1435		31.69	250 mL	0:49.78
1440		31.93	"	0:47.26
1445		31.92	"	0:46.84
1450		32.13	"	0:49.65
1455		31.99	"	0:46.96
1500		32.16	"	0:49.94
1505		32.01	"	0:48.75
1510		32.17	"	0:47.74
1515		32.14	"	0:46.48
1520		32.24	"	0:50.83
1525		31.95	"	0:58.54
1530		31.95	"	1:02.38
1530		31.97	"	1:04.32

1539 - Pump off - total of 5.25 gallons pulled from well
- Load up equipment; ICON placed purged water in 55-gallon steel drum near turn-around in the vicinity of CD-2 + CD-3 locations.
1600 - Moved to next location.
1610 - Arrived @ CD-6 location.
- Set up on CD-6B (56-66')

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1615 - CD-6B - D.T.W. - 23.03' below TOC
1618 - Ran (3/8" OD x 1/4" ID) tubing downhole w/ water level probe; hooked up to peristaltic pump.
1621 - Pump on - Conducting "pump test" in same manner as CD-2B - collecting water levels ~~every 15 minutes~~ every five (5) minutes; and measuring the time it takes to pump ≈ 250 mL of water from well @ same five (5) minute interval

CD-6B (56-66') Details:

TIME	D.T.W. below TOC	Time to pump 250 mL
1625	26.90'	1:23.85
— Slightly increased pump speed —		
1630	30.55'	0:57.41
1635	32.19'	1:25.44
— Slowed pump down slightly —		
1640	32.18'	1:30.29
1645	31.71'	1:40.66
1650	31.00'	—
- Pump shut off —		
- Change peristaltic pump drive to lower setting; pump was lifting water too fast and head getting too low		
1653	- Resume pumping	
1700	30.84'	1:37.84
1705	31.54'	1:38.27
1710	31.54'	1:43.02
1715	31.55'	1:41.54

1717 - Pump off - completed test - pump a total of ≈ 2.0 gallons of water.

1730 - Done for the day - left site

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715 - RL left Rayne, LA (Truck 30)
~~730~~ - arrived onsite
8:15 - Drew Campbell (ICON) and Marcus Smith (ERM) arrived @ site.
- ICON unloading SxS and loading equipment.
- Moved from muster point to CD-9 location.
8:30 - Arrived @ CD-9 location; ICON opened wells.
- CD-9B (58-68') - DTW - 31.18' below TOC.
- Ran 3/8" OD x 1/4" ID tubing down well w/ water level probe.
- Hooked up peristaltic pump to tubing; will conduct "pump test" consisting of pumping the well ~~[illegible]~~ and collecting DTW level measurements @ different time intervals; also measuring flow rate by determining volume time it takes to fill 250 ml volume.
839 - Pump on

CD-9B

TIME	DTW bTOC	TIME to pump 250 ml
850	31.72'	1:59.43
855	31.69'	- Pump speed fluctuating -
	- increase pump speed -	
900	31.75'	1:57.79
915	31.75'	2:32.61
	- increase pump speed -	
920	31.77'	2:06.00
925	31.78'	2:04.64
930	31.79'	2:13.60
935	31.82'	1:46.71
940	31.86'	1:51.70
945	31.80'	1.51.64

947 - Pump off
- Load up equipment - move to next location.
1010 - ICON arrived @ CD-10 location; opened CD-10A (30-40')
1012 - CD-10A - DTW = 13.59' below TOC.
- ICON ran transducer down well - set @ ≈ 20' bTOC
- let well equalize.

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Project Name: Castex Development, LLC
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CD-10A (30-40')

10:26 - Started Test / logging
1030 - Poured in 8 oz of water
- let equalize.
1049 - Poured in 8oz of water
- let equalize
1110 - Poured in 8oz of water
- Let equalize
1130 - Stopped test / log.
- ICON removing transducer from well.
- moved to next location
1137 - Set up on CD-4 location; opened CD-4A + CD-4B wells.
1141 - CD-4A = DTW = 19.25' below TOC
1143 - ICON ran transducer down well - set @ ≈ 25' BTOC.
1153 - Started test / log of CD-4A (27-42')
1158 - Poured 8oz of water into well.
- Let equalize
1207 - Poured 8oz of water
- Let equalize.
1218 - Poured 8oz of water
- let equalize.
1229 - Stopped test / logging.
- pulled transducer from well; placed well cap back on well.
1237 - ICON moved to CD-4B (42-47')
- Measured DTW = 40.17' below TOC
- Left water level probe in well
1239 - Ran 3/8" OD x 1/4" ID tubing down well; ICON will attempt to conduct pump test.
- hooked up peristaltic pump to conduct pump test - same method as described @ CD-9B location.

1310 - Pump off - Depth to water was too deep and could not get water to pump.
- moved to next location/new location.

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Client: Liskow + Lewis
Project Name: Castex Development, LLC
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1337 - Set up on CD-11B (60-70') - opened well
1339 - CD-11B DTW - 31.58' below TOC.
- Ran 3/8" OD x 1/4" ID tubing and water level probe down well, - Set up peristaltic pump to conduct pump test.
1346 - Pump On.
1400 - Pump off - ~~well~~ pump not lifting water / water not flowing to surface
- Rainstorms in vicinity of site; Head back to trucks
1415 - Heavy rain onsite; ICON shut down work
- Left site

* Waste water from testing placed in 55-gallon drums either near CD-2 + CD-3 locations or drums near CD-5 locations.

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow + Lewis
Project Name: Castex
Project Location: Jennings, La

Project No.: 1009.A25
Date: 9-8-22
Page 1 of

830 loaded supplies
845 left office
930 arrival on site
Iron Plugging wells
CD-9A/B CD-10C Mason + Day
CD-10B Plugging wells once the wire collected

On site
Don-HET
Chris
Mason / Iron
Jay

957 opened CD-14A video of each well being opened
1001 opened CD-7 A,B,C
1012 CD-6 A,B,C C - pressure
1024 CD-5 ABC
1036 CD 4 AB
1042 CD 9 AB
1050 CD 13 ABC
1055 CD-8 AB
1058 CD-10 ABC
1110 CD-15 ABC
1115 CD-2 AB
1117 CD-11 AB
1120 CD-3 AB
1131 CD-12 AB
1143 CD-1 A,B,C

1255 mobbed to CD-9 AB

TD + Stickup confirmed w/ probe w/ correct tape

W/S CC	W/C (BTOC)	TD (BTOC)	Stickup
CD-9A	~~28.45~~ 37.94	39.59'	3.50'
CD-9B	54.49'	71.26'	3.44'
CD-5A	45.42'	44.76'	1.65'
CD-5B	83.83'	70.91'	1.46'
CD-5C	87.50'	—	1.84'
CD-4A	43.21'	43.51'	1.63'
CD-4B	63.17	68.93'	1.68'
CD-10A	38.68'	41.00	1.05'
CD-10B	91.69'	66.30	1.38'
CD-10C	92.46	72.59	2.41'
CD-14A	41.37'	41.22'	1.27

changed probe for Lil's ≈ 25.5' short

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
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Client: Wikowtlewis
Project Name: Castex
Project Location: Jennings, La

Project No.: 1009A75
Date: 9-8-22
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Well	W/L (BTOC)	TD (BTOC)	Stickup
CD-7A	41.72	16.65'	1.41'
CD-7B	41.95'	~~33.70~~ 33.73	1.50'
CD-7C	41.92'	51.48'	1.46'
CD-6A	43.72'	41.50'	1.60'
CD-6B	47.27	67.32'	1.38
CD-6C	44.48'	81.31'	1.28'
CD-13A	43.47'	33.08'	1.09'
CD-13B	43.39	43.16'	1.38'
CD-13C	70.20'	69.08'	1.13
CD-8A	34.42'	31.26'	1.23
CD-8B	77.17'	63.52'	1.30'
CD-12A	33.62'	18.54'	1.63
CD-12B	33.49'	39.63'	1.36
CD-3A	39.16'	43.83'	1.88
CD-3B	53.62'	66.82'	1.87
CD-11A	41.05'	36.05'	1.04
CD-11B	56.26'	71.22'	1.24
CD-2A	41.89'	45.03'	1.91
CD-2B	53.24'	70.07	1.84
CD-15A	42.58'	39.50	1.42
CD-15B	42.62'	49.32	1.54
CD-15C	50.14'	69.58'	1.56
CD-1A	33.04'	17.66'	Flush mount
CD-1B	33.44'	36.65'	"
CD-1C	59.48'	57.82'	"

~~Tester~~ JCON Has 2 Drums adjacent to CD-5 & 1 Drum near CD-2
Plugging CD-5C
Placed tubing down well
used ≈ 5 gallons grout
Cut below ground
1700 left site
1745 arrived @ office

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Client: Liskow & Lewis
Project Name: Castex
Project Location: Jennings, LA

Project No.: 1009.A75
Date: 1-18-24
Page 1 of 2

0700 – EM left HET in #40
– Arrive on site. Overcast, 47°F
– ICON located first water well. Cleared heavy brush w/ machete.
↳ SN. 153-733

on site
Eric Montesano – HET
Chris Miller] ICON
Jay Culpepper

– WL: 65.09
TD: ~180' (ICON's probe only 100' long)

0830 – Well logging tool dropped into well using pulley.
↳ Reference point = top of casing.

0840 – While lowering tool to TD:
• Unit housing the wire slid forward 3-4" in bed of truck. Potentially reflected on first log.
– Log is measuring:
i) Gamma
ii) Resistivity
iii) Conductivity
iv) Temperature.

} ⇒ Century Wireline 9512 Slim Line Induction Tool

PROBE

0850 – Began pulling probe out of hole.
↳ ~17'/min rate of pulling.

0902 – Top of casing w/ probe.
0905 – Began lowering again.
0928 – Probe @ top of casing
↳ Log stopped.
– ICON loaded equipment & checked data.
– Mob to SN 053-5083.
– Well not capped; also broken. ICON cut @ surface w/ saw. Water level @ surface.
– ICON lowered tool into well. Water coming out of well + onto ground as probe lowered.

↓

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Client: Liskow & Lewis
Project Name: Castex
Project Location: Jennings, LA

Project No.: 1009.A75
Date: 1-18-24
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- TD measured @ 68.01. Should be ~ 180'.
- Well potentially silted in.

1046 - Began logging. Pulling probe up out of well.
1052 - Probe pulled to top of casing.
1053 - ~~lowered~~ lowering into well again.
1056 - Pulling up from TD.
1100 - Stopped logging.

1330 - Mob to area containing

SN971675 & ~~SN760177~~ SN760164

- Unable to locate well they are looking for. Slight rain begins.
- Continue to look for well.
- All personell off site

1700 - Arrive @ HET

EM

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Client: Liskow & Lewis
Project Name: Castex
Project Location: Jennings, LA

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Date: 1-22-24
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0800 – EM left HET in # 33.

On Site
Eric Montesano – HET
Chris Miller
Jay Culpepper] ICON

0840 – Arrive on site
0915 – ICON on site
– Mob to SN 053-733 location to re-attempt to log.
– same probe as 1-18-24
↳ Century Wireline 9512 Slim Line Induction Tool.
~~1057~~ – lowering tool on SN:
1027 – 053-733

TD: 178.51' BTOC
Stick up: 0.92'. pad in tract ~1.5" thick & above ground.
WL: 64.92 BTOC
Reference point: top of casing.
– ICON logged well w/ probe.
– HET given data on USB drive.
1420 – All personell off site
1600 – Arrive @ HET

EM

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Environmental Consultants

ICON OS
DCL

Client :

Project Name: CASTEX

Project No.: 1009.175

Project Location: SENNINGS, LA

Date: 6/10/24

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@0800 - LEFT OFFICE TRUCK #39
@0930 - ARRIVED ON SITE
@1030 - ICON ARRIVED
- SAM C.
- GEOFF M.
- MEAGAN L.
• HANNAH S. ERM
@1200 - SETUP ON CD-16 TO SOIL SAMPLE
@1630 - SAMPLED TO 60'
@1700 - BARRELS LEFT @ 60'
- WILL CONTINUE TOMORROW
@1730 - LEFT SITE
@1830 - ARRIVED AT OFFICE

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

1CO205
DCC

Client:

Project Name: CASTEX

Project No.: 1009.A75

Project Location: SENNICHS, LA

Date: 6/11/24

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@0645 - LEFT OFFICE, TRUCK #35
@0730 - ARRIVED ON SITE, SAME PERSONNEL AS 6/10
- RETURNED TO CD-16 TO BEGIN SETTING WELLS

@1000 - CD-16B [56-66']
- 2.25" BARRELS PULLED, RE-ENT WITH X-POINT TO 66', 10' PVC SCREEN 0.25" WELLCTD
- SAND ADDED TO 55'
- BENT ADDED TO 52'
- 2.25" CASING PULLED TO 50'

@1130 - MOVED ~~APPR~~ 3' TO SET CD-16A2 [36-46]
- 2.25" BARREL WITH X-POINT PUSHED TO 46', 10' OF PVC SCREEN SET @ TD
- BARRELS PULLED, NATIVE COLLAPSE TO 33', NO SAND ADDED
- BENT ADDED TO 30'

@1600 - MOVED 3' TO SET CD-16A1 [16-26']
- 2.25" ~~BARRELS~~ WITH X-POINT PUSHED TO 26', 10' OF 0.75" SCREEN SET @ TD
- BARRELS PULLED, SAND POURED FROM ~~SURF~~ SURF TO 15'
- BENT @ 13'

@1630 - ALL WELLS GROUTED TO SURF WITH TREMIE PIPE

CD-16B — 25gal
CD-16A2 — 15gal
CD-16A1 — 5gal

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

ICON 05
DCC

Client :

Project Name: CASTEX

Project No.: 1009.A75

Project Location: SENNINGS, LA

Date: 6/12/24

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@0645 - LEFT OFFICE, TRUCK # 39
@0730 - ARRIVED ON SITE
- SAME PERSONNEL 6/11/24
@0800 - SET UP ON CD-14D TO BEGIN AUGERING WITH 1.25" SOLID FLIGHT AUGERS
@1200 - AUGER TO 109', PULLED AUGERS
- RE-ENTERED WITH ⊼ POINT TO 109'
- 15' OF PVC SCREEN SET @ TD
- BARRELS [2.25"] PULLED TO 90'
- WELL BEGAN PRODUCING GAS
- ICON WILL ALLOW WELL TO VENT UNTIL TOMORROW
@1300 - LEFT SITE
@1500 - ARRIVED AT OFFICE

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

1000 OS
DCC

Client :

Project Name: CASTEX

Project Location: SENNINGS, LA

Project No.: 1009.A75

Date: 6/13/24

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@0645 - LEFT OFFICE, TRUCK #39
@0750 - ARRIVED ON SITE
- SAME PERSONNEL 6/12/24
@0800 - RETURNED TO CD-14D
- WELL STILL PRODUCING GAS
- 1000 WILL PLT

• WELL MATERIAL PULLED
• RE-ENTERED BORING WITH 2.25" CASING WITH X-POINT TO 109, THEN 5gal OF GROUT POURED FROM SURFACE WITH 4' OF CASING PULLED AT A TIME

@1030 - CD-14D GROUTED TO SURFACE WITH APPRX 40gal OF GROUT
@1100 - GEOFF/SAM LEFT SITE
- MEAGAN BEGAN GW SAMPLING GD-16A1 WITH PERISTALTIC PUMP
@1400 - SETUP TO SAMPLE GD-16A2 WITH PERISTALTIC PUMP
@1515 - SETUP TO BEGIN SAMPLING GD-16B
@1630 - FINISHED SAMPLING ALL 3 WELLS

* ALL SAMPLES SPLIT WITH GRM

@1700 - LEFT SITE
@1800 - ARRIVED AT OFFICE

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

KCN OS
DL

Client :

Project Name: CASTEX

Project No.: 1009.A75

Project Location: SENNICHS, LA

Date: 6/14/24

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@0630 - LEFT OFFICE, TRUCK #39
@0715 - ARRIVED ON SITE, SAME PERSONNEL AS 6/13/24
@0800 - BEGAN SOIL SAMPLING CD-17
@1100 - SAMPLED TO 48'
- BARRELS WILL BE LEFT AT TD UNTIL MONDAY
@1130 - LEFT SITE
@1300 - ARRIVED AT OFFICE

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants
91 Apollo Road
Scott, Louisiana 70583
(337) 261-1963 Fax (337) 261-1953

BORING No. CD-14D

PROJECT NAME CASTEX
PROJECT NUMBER 1009.075
LOCATION SENWICKS, LA
DRILLING METHOD GP 7822 DP
SAMPLING METHOD 2.25" x 4'
GROUND ELEVATION
TOP OF CASING
LOGGED BY
REMARKS 30.18770248 -92.61183326

DATE STARTED 6/12/24
DATE COMPLETED 6/12/24
CASING TYPE/DIAMETER PVC
SCREEN TYPE/SLOT
SAND PACK TYPE
GROUT TYPE/QUANTITY
DEPTH TO WATER
GROUNDWATER ELEVATION

PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE ID	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
								* LITHOLOGY NOT LOGGED
					92			
					94			
					96			
					98			
					100			6/13/24 WELL P&A'D WITHOUT
					102			SAMPLING
					104			
					106			
					108			
					110			
					112			
					114			
					116			
					118			
					120			
					122			
					124			
					126			
					128			
					130			

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants
91 Apollo Road
Scott, Louisiana 70583
(337) 261-1963 Fax (337) 261-1953

BORING No. CD-16

PROJECT NAME CASTEX
PROJECT NUMBER 1009.475
LOCATION DENHAM, La
DRILLING METHOD GP7822 DP
SAMPLING METHOD DT 1.25 x 4'
GROUND ELEVATION —
TOP OF CASING —
LOGGED BY DCC
REMARKS 30.194176667 -92.615206776

DATE STARTED 6/10/24 pg 1 of 2
DATE COMPLETED 6/10/24
CASING TYPE/DIAMETER
SCREEN TYPE/SLOT
SAND PACK TYPE
GROUT TYPE/QUANTITY
DEPTH TO WATER
GROUNDWATER ELEVATION

PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	
								0-0.4 SILT, HIGH CLAY, RED GREY, LOW MOIST MOD DENSITY	
1.7		1305			02			0.4-1.7 CLAY, MOD SILT, RED GREY, LOW MOISTURE, MOD DENSITY	0.42 1
					04				
					06			0-3.0 CLAY, AS ABOVE, LARGE Ca@2.8	1.58 2
3.0									1.52 3
					08				
								0-2.0 CLAY, AS ABOVE	1.84 4
4.0			ERM		10			2.0-4.0 CLAY, MINOR SILT, GREY, LOW MOISTURE, HIGH DENSITY	2.00 5
	1641				12				
								0-4.0 CLAY, AS ABOVE	2.02 6
4.0					14				1.83 7
			ERM						
					16			0-0.5 SILT 0.5-2.5 CLAY, MOD SILT, GREY, LOW MOISTURE, MOD DEN 2.5-4.0 CLAY, HIGH SILT, GREY, LOW MOIST, MOD DEN	1.26 8
4.0					18				
									0.5 9
					20			0-3.0 CLAY, AS ABOVE	1.49 10
3.0									1.22
					22			0-2.7 SILT, HIGH CLAY CONTENT, GREY TAN, LOW MOIST / DENSITY	0.65 11
2.7									0.65
					24			0-3.5 SILT, MINOR CLAY, RED DARK LOW DENSITY	0.65 12
3.5									0.42
					26			0-2.7 SILT, AS ABOVE	0.73 13
3.1								2.7-3.1 CLAY HIGH SILT	0.72
					28			0-2.2 CLAY, MOD SILT, GREY, LOW MOIST, MOD DEN, 2.2-3.8 SILT HIGH CLAY, SAT, LOW DEN	1.24 14
3.8	1642								0.98
					30			0-3.0 SILT, AS ABOVE	0.70 15
3.7								3.0-3.7 CLAY, ~~HIGH~~ HIGH SILT, GREY, LOW MOIST / DAMP, MOD DEN	0.72 16
					32			0-3.8 SILT TAN, SATURATED, LOW DEN	0.94 17
3.8								1.1-2.2 CLAY, MOD SILT, GREY, LOW MOIST / DEN	1.47 18
					34			0-3.2 SILT, MOD CLAY, GREY, SATURATED, LOW DEN	0.71 19
3.2									0.63 20
					36			0-3.7 SILT, GREY, SATURATED, LOW DENSITY	0.74 21
3.7									0.74
					38			0-3.5 SILT, AS ABOVE	
3.5					40				

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BORING No. CD-16 pg 2 of 2

PROJECT NAME CASTEX
PROJECT NUMBER 1009.478
LOCATION
DRILLING METHOD
SAMPLING METHOD
GROUND ELEVATION
TOP OF CASING
LOGGED BY
REMARKS

DATE STARTED 6/10/24
DATE COMPLETED 6/10/24
CASING TYPE/DIAMETER
SCREEN TYPE/SLOT
SAND PACK TYPE
GROUT TYPE/QUANTITY
DEPTH TO WATER
GROUNDWATER ELEVATION

PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	
3.7								SILT, GREY, SATURATED, LOW DEN	0.70
					42				0.55
4.0								0-4.0 SILT, AS ABOVE	0.70 22
					44			0-3.0 SILT, AS ABOVE	0.60 23
3.5								3.0-3.5 CLAY MINOR SILT, GREY, LOW MOIST/DENS	0.53 24
					46			0-1.6 SILT, GREY, SATURATED, LOW DENSITY	0.57 25
3.9								1.6-3.9 CLAY MINOR SILT, GREY, LOW MOISTURE MOD DENSITY	0.52 26 27
					48			0-4.0 SILT, MOD CLAY, GREY, SATURATED, LOW DEN	28
4.0									0.56 29
					50			0-3.4 CLAY, MOD SILT, GREY AND TAN, LOW MOISTURE, MOD DENSITY	30
3.4									0.64 31
					52			0-3.2 CLAY, MOD SILT, GREY, LOW MOISTURE MOD DENSITY	1.27 32
3.2									
					54			0-2.9 CLAY, AS ABOVE	1.44 33
2.9			ERM						
					56			0-4.0 SILT, MOD CLAY, GREY, DAMP, LOW DENSITY	0.15 34
4.2									
					58			0-0.9 SILT, AS ABOVE	
3.8								0.9-1.9 CLAY	
					60			1.9-3.8 SILT, GREY, SATURATED, LOW DEN	0.44 35
					62				
					64			6/11/24	
					66			CD-16B / CD-16A2 / CD-16A1	
					68			SAND 55 / NAT 33' / SAND 15	
					70			BENT 52 / 30' / 13'	
					72			3.25" CAS 50 / NA / NA	
					74			SCREEN 56-66 / 36-46' / 16-26	
					76				
					78				
					80				

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BORING No. CD-17 Pg 1 OF 2

PROJECT NAME: CASTEX
PROJECT NUMBER: 1009.475
LOCATION: TENDOLS, LA
DRILLING METHOD: GP 7822 2.25x4'
SAMPLING METHOD: 1.25x4' DT
GROUND ELEVATION:
TOP OF CASING:
LOGGED BY: DJE
REMARKS: 30.17941179 -92.61662561

DATE STARTED: 6/14/24
DATE COMPLETED: 6/17/24
CASING TYPE/DIAMETER:
SCREEN TYPE/SLOT:
SAND PACK TYPE:
GROUT TYPE/QUANTITY:
DEPTH TO WATER:
GROUNDWATER ELEVATION:

PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE ID	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION		
2.2					2			0-2.2 CLAY, MOD SILT, GREY, LOW MOISTURE, MOD DENSITY, Fe STAIN SILT CONTENT DECREASING WITH DEPTH	0.48 / 1.02	1
4.0					4					
					6			0-4.0 CLAY, MINOR SILT CONTENT, GREY AND TAN, LOW MOISTURE, HIGH DEN MINOR Mn/Fe 0.1' SILT @ 2' [DRY]	2.34 / 2.55	2 / 3
			ERM		8			0-3.3 CLAY, AS ABOVE		
4.0					10			3.3-4.0 SILT, MOD CLAY, TAN, LOW MOISTURE, MOD DENSITY	3.00 / 0.94	4 / 5
					12			0-2.0 CLAY, MINOR SILT, GREY AND TAN LOW MOIST, HIGH DENSITY	2.42	6
4.0			ERM		14			2.0-4.0 CLAY, HIGH SILT, TAN, LOW MOIST HIGH DEN	2.22	7
2.5					16			0-2.5 CLAY, HIGH SILT, TAN, DAMP TO SATURATED LOW DENSITY	1.43	8
2.7					18			0-2.7 CLAY, AS ABOVE	1.69	9
2.9					20			0-2.9 CLAY, MOD SILT, TAN AND GREY LOW MOISTURE, MOD DENSITY	1.16	10
3.1					22			0-1.6 CLAY AS ABOVE 1.6-3.1 CLAY, HIGH SILT, GREY, LOW MOISTURE/DEN	0.97	11
2.9					24			0-2.9 SILT, MINOR CLAY, GREY, DAMP, LOW DENSITY	0.72	12
3.0					26			0-3.0 SILT, AS ABOVE	0.70	13
2.8					28			0-2.8 CLAY, MINOR SILT, GREY, LOW MOIST MOD DENSITY	-	14
2.9					30			0-2.9 SILT, GREY, SATURATED, LOW DENSITY	0.98	15
3.5					32			0-3.0 SILT, AS ABOVE	0.57	-
3.7					34			0-3.7 SILT, AS ABOVE	0.88	16
4.0					36			0-4.0 SILT, AS ABOVE	0.73	17
3.8					38			0-3.8 SILT, AS ABOVE	0.73	18
					40					

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(337) 261-1963 Fax (337) 261-1953

BORING No. CD-17 pg 2 of 2

PROJECT NAME
PROJECT NUMBER
LOCATION
DRILLING METHOD
SAMPLING METHOD
GROUND ELEVATION
TOP OF CASING
LOGGED BY
REMARKS

DATE STARTED 6/14/24
DATE COMPLETED 6/14/24
CASING TYPE/DIAMETER
SCREEN TYPE/SLOT
SAND PACK TYPE
GROUT TYPE/QUANTITY
DEPTH TO WATER
GROUNDWATER ELEVATION

PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION		
								0-3.7 SILT, AS ABOVE	—	19
3.8					42					
3.7								0-3.7 SILT AS, ABOVE	0.72	20
					44					
								0-3.3 SILT, AS ABOVE		
3.8								3.3-3.8 CLAY, HIGH SILT, GREY, LOW MOIST / DEN	0.8	21
					46			0-1.5 SILT GREY, SAT LOW DEN		
								1.5-2.9 CLAY GREY, MOD DEN		
4.0					48			2.9-4.0 SILT, HIGH CLAY, GREY, SATURATED, LOW DEN	1.85	22
	6/17/24							0-0.5 SILT, GREY, SATURATED, LOW DEN		
3.8					50			0.5-3.8 CLAY, HIGH SILT, GREY, LOW MOIST, MOD DEN	1.82	23
								0-3.0 CLAY, AS ABOVE		
4.0					52			3.0-4.0 CLAY, MOD SILT, GREY, LOW MOIST, MOD DEN	1.08	24
4.0								0-1.7 CLAY, HIGH SILT, GREY, DAMP, LOW DEN		
					54			1.7-4.0 CLAY, MOD SILT, GREY, LOW MOIST, MOD DEN	1.04	25
4.0								0-4.0 CLAY, MOD SILT, GREY, LOW MOIST, MOD DEN	1.64	26
					56					
								0-4.0 CLAY, AS ABOVE	0.59	27
4.0					58					
								0-4.0 CLAY, AS ABOVE		
4.0									1.61	28
					60			CLAY, AS ABOVE	—	24
3.8										
					62			0-1.1 CLAY AS ABOVE		
								1.1-1.9 SILT, GREY SAT. LOW DEN		
4.0					64			1.9-4.0 CLAY, MOD SILT, GREY, LOW MOIST, MOD DEN	0.71	29
3.4								0-3.4 CLAY, HIGH SILT CONTENT, GREY / SAT		
					66			3.0-3.4 LOW DENSITY	0.71	8 —
								0-2.6 SILT, GREY, SATURATED, LOW DENSITY		
3.6					68			2.6-3.6 CLAY, HIGH SILT, GREY, DAMP, LOW DEN	0.67	30
					70					
					72			CD-17B	CD-17A2	CD-17A1
					74	S		62-72'	39-49	16-26
					76	VAT		66-72	31'	15'
					78	SAND		62-66	—	—
					80	BENT		52-55	28'	13'

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KOW OS
DLC

Client: _____

Project Name: CASTEX

Project Location: _____

Project No.: 1009.A75

Date: 6/17/24

Page _____ of _____

@0800 - LEFT OFFICE, TRUCK # 39
@0900 - ARRIVED ON SITE
- PERSONNEL
- MEAGAN L.
- JASON C.
- GEOFF M.
} (CON)
- HANNAH S. ERM
- RETURNED TO CD-17 TO CONT SAMPLING
@1030 - BEGAN SAMPLING
@1300 - SAMPLED TO 68', BEGAN SETTING WELLS

- CD-17B [62-72']
- PULLED BARRELS [~2.25"], RE-ENT W/E-POINT TO 72', 10' PVC SCREEN/W-SOCK @ TD. PULLED BARRELS TO 50', NOT COLLAPSE TO 66' SAND POURED FROM SURF TO 62', RENT TO 50'

- CD-17A2 [39-49']
- MOVED APPRX 4': 2.25" W/E-POINT TO 45', 10' PVC SCREEN W/SOCK SET @ TD BARRELS PULLED, NOT COLLAPSE TO 31' BENTO @ 28'

@1700 - WILL GROUT TOMORROW, LEFT SITE
@1750 - ARRIVED AT OFFICE

KOW OS
DCA

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client :

Project Name: CASTEX

Project Location: SENNINGS, LA

Project No.: 1009.A75

Date: 6/18/24

Page ____ of ____

@0630 - LEFT OFFICE, TRUCK 39
@0745 - ARRIVED ON SITE
- SAME PERSONNEL AS 6/17
@0900 - BEGAN SETTING WELL

@1000 - CD-17A1 [16-26]
- MOVED APPRX 4', 2.25" W/E BOND TO 26', 10' PVC SCREEN W/SOCK @ TD
BARRELS PULLED, NO COLLAPSE TO 15' BENT @ 13
@1100 - BROKE FOR LUNCH
@1200 - BEGAN GROUTING ALL WELLS WITH TREMIE PIPE TO SURF
CD-17A1 — 3 gal
CD-17A2 — 5 gal
CD-17B — 17 gal
@1400 - BEGAN PURGING CD-17A1
@1500 - WELL DRIED, BEGAN PURGING CD-17A2
@1540 - SAMPLED CD-17A2
@1600 - DRIED CD-17A1 AGAIN
- WILL SAMPLE TOMORROW
- LEFT SITE
@1700 - ARRIVED AT OFFICE

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

1009 05
DCC

Client:

Project Name: CASTEX

Project Location: KENNIDY

Project No.: 1009.A75

Date: 6/19/24

Page ____ of ____

@0630 - LEFT OFFICE, TRUCK #39
@0730 - ARRIVED ON SITE
- SAME PERSONNEL AS 6/18
@0800 - SETUP TO BEGIN PURGING CD-17B
@1030 - SAMPLED CD-17B
- RETURNED TO CD-17A1 TO CONT SAMPLING

* WELL PRODUCING VERY LITTLE WATER

@1400 - FINISHED SAMPLING LEFT SITE
@1530 - ARRIVED AT OFFICE

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow
Project Name: Castex
Project Location: Mermentau, LA

Project No.: 1009.A75
Date: 7-3-24
Page 1 of 4

820 - RL left HET office - Truck 43
915 - Arrived onsite; Derek Porcian w/ ICON onsite
- ERM onsite - Marcus Smith
- Set up near CB-4/CD-5 area; Derek Porcian opening all wells to collect water levels / conduct surveys
- Drew Campbell will conduct slug tests on select wells
930 - S.J. Langlinais & Associates onsite (Surveys) -> will be surveying ICON Monitor wells.
950 - Drew Campbell onsite; set up on CD-2B (58-68')
1000 - ICON dropped transducer down hole; hooked up computer & checking calibration
- Water Level = ÷
1025 - Pulled transducer; ran back down well
- checking calibration / set-up
- ICON having issues with calibration of transducer
- DTW - 29.42'
- Transducer @ 40' below TOC
1056 - Started logging
1100 - Poured down 8oz - measured in measuring cup
- Let equalize
1120 - Added 8oz of water
- Let equalize
1140 - Added 8oz of water
- Let Equalize
1200 - Completed slug test; pulled transducer from well
- Done w/ CD-2B; moved to next well
- RL left site to pick-up lunch
1230 - Back onsite
- ICON setting up on CD-1C (48-58') to slug test
- ~~dropped transducer down~~ Depth to water reading - 36.16"
- Well was set as a flush mount on levee in rice field; the levee was reworked and ≈ 3" of soil was on top of well cover prior to slug testing.

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow
Project Name: Costex
Project Location: Mermentau, LA

Project No.: 1009.475
Date: 7-3-24
Page 2 of 4

ICON set up on CD-1C (48-58')
1230 - ICON dropped transducer down hole / well - set @ 40' BTOC
- Calibrating system / software
1240 - Added 8oz of water measured w/ measuring Cup
- Let stabilize
1250 - Added 8oz of water
- Let stabilize
1300 - Added 8oz of water
- Let stabilize
1310 - Stopped log
- Completed slug test; ~~waiting~~
- waiting for Derek D. to finish using SxS
1405 - Set up on CD-8B (58-68) w/ SxS - MW location is near a cooler ~~that~~ Gas about ≈ 3-6" of standing water
- Depth to water = 54.44' BTOC
1434 - ICON ran transducer down well - started logging
- Calibrating system / software
1450 - Added 8oz of water - measured in measuring Cup
1521 - Stopped the log
- Only running one slug in
- Rain / lightning in the area; ICON worried about electronics in the rain.
- Loading up equipment / supplies
- Move back to staging area near CD-4 / CD-5
- load up
- transfer slug test data onto thumbdrive
1550 - left site
1640 - Back @ HET office

Water Level Measurements on Next Page

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
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Client: Liskow
Project Name: Castex
Project Location: Mermentau, LA

Project No.: 609.A75
Date: 7-3-24
Page 3 of 4

ICON Monitor Well	Depth to Water	TD
CD-1A (13-18')	9.52'	–
CD-1B (32-37')	10.02'	–
CD-1C (48-58')	36.24'	–
CD-2A (33-43')	18.61'	–
CD-2B (58-68')	29.43'	–
CD-3A (27-42')	16.08'	–
CD-3B (60-65')	29.92'	–
CD-4A (27-42')	14.03'	–
CD-4B (62-67')	27.65'	–
CD-5A (28-43')	14.85'	–
CD-5B (65-70')	60.75'	–
CD-6A (30-40')	18.70'	–
CD-6B (56-66')	22.19'	–
CD-6C (75-80')	N/A - bad gauging + bad pressure	–
CD-7A (10-15')	Dry	16.4'
CD-7B (27-32')	17.52	–
CD-7C (40-50')	17.57	–
CD-8A (26-30')	8.18'	–
CD-8B (52-62')	54.44'	–
CD-9A (26-36')	N/A not located	–
CD-9B (58-68')	N/A not located	–
CD-10A (30-40')	8.55'	41.87'
CD-11A (30-35')	18.33'	–
CD-11B (60-70')	32.46'	–
CD-12A (7-17')	5.00'	18.31
CD-12B (29-39')	5.02'	39.53
CD-13A (22-32')	16.49'	32.87
CD-13B (32-42')	16.46'	42.91
CD-13C (58-68')	45.48'	68.85

More on Next Page

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
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Client: Liskow

Project Name: Castex

Project Location: Mermentau, LA

Project No.: 1009.475

Date: 7-3-24

Page 4 of 4

ICON Monitor Well	Depth to Water	TD
CD-14A (36-46')	16.88	40.95'
CD-15A (28-38')	18.86	39.30'
CD-15B (38-48')	18.91	49.13'
CD-15C (63-68')	26.26'	69.29'
CD-16A1 (16-26')	18.60	27.44
CD-16A2 (36-46')	18.53'	47.19'
CD-16B (63-68')	27.50'	67.23'
CD-17A1 (16-26')	19.15'	27.45'
CD-17A2 (39-49')	19.90'	51.45'
CD-17B (62-72')	33.30'	72.75'

RL

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Environmental Consultants
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Scott, Louisiana 70583
(337) 261-1963 Fax (337) 261-1953

BORING No. CD-18

PROJECT NAME: CAstex
PROJECT NUMBER: 1009 A75
LOCATION: Jennings, LA
DRILLING METHOD: Geoprobe 7822 DT
SAMPLING METHOD: 2.25 x 4' Dual Tube
GROUND ELEVATION: —
TOP OF CASING: —
LOGGED BY: TW
REMARKS: 30.17836, -92.61795 +/- 10'

DATE STARTED: 7/23/24
DATE COMPLETED: 7/29/24
CASING TYPE/DIAMETER: PVC / 0.75"
SCREEN TYPE/SLOT: Slotted PVC w/ filter sock
SAND PACK TYPE: 20/40 Silica
GROUT TYPE/QUANTITY: Portland Bentonite
DEPTH TO WATER: —
GROUNDWATER ELEVATION: —
TOTAL DEPTH: 64' BLS

Page 1 of 2

Recovery	PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE ID	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	E.C.
2'			0815	0-4		2, 4			0-0.5' Silty clay, brown-gray, low moist, med Dens 0.5-2' Clay, l gray, low moist, med Dens	1.58
			0820			6			0-4' Clay, l gray, low moist, med-high Dens, mn, Ca @ 3.4'	1.81
4'			0825	6-8		8				2.72
			0830			10			0-4' Clay, redbrown to l gray, low moist, med-high Dens, Ca @ 0.4' & 3.5'	2.52
4'			0835	10-12		12				2.85
			0840			14			0-4' Clay, As Above Silt lens @ 3.8-4'	2.68
4'			0845	14-16		16				2.20
2.1'			0850			18			0-2.1' Clayey silt, brown, Damp, low Dens, Clay lens @ 0.3-0.4'	0.66
2.6'			0855			20			0-2.6' Clay, min silt, brown, low moist, med-high Dens	2.09
2.2'			0857			22			0-2.1' Clay, gray brown, low moist, high Dens, Silt lens @ 0.5-0.6'	2.17
2.5'			0900			24			0-1' Clay, As Above 1-2.5' Silt, gray, med moist, low Dens, Ca @ 0.5'	0.75
1.9'		Native	0905			26			0-1' Silt, As Above 1-1.9' Clay, min silt, gray, low moist, med Dens	0.87
2'			0910	26-28		28			0-2' Clay, As Above	1.76
2.8'			0915			30			0-2.2' Clay, gray, low moist, med Dens 2.2-2.7' Silt, gray, med moist, low Dens	1.54
3'			0920			32			0-1.2' Clay, gray, min silt, SAT, low moist, med Dens 1.2-3' Silt, gray, SAT, low Dens	0.77
3'			0925			34			0-3' Silt, brown-gray, SAT, low Dens	0.92
3.7'		Native	0930			36			0-3.7' Silt, As Above, SAT	0.98
3.9'			0935			38			0-3.9' Silt, As Above, SAT	0.79
			0940			40			0-3.7 Silt, As Above	0.61

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Scott, Louisiana 70583
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BORING No. CD-18

PROJECT NAME: Castex
PROJECT NUMBER: 1009.A75
LOCATION: Jenning, LA
DRILLING METHOD:
SAMPLING METHOD:
GROUND ELEVATION:
TOP OF CASING:
LOGGED BY: TW
REMARKS:

DATE STARTED: 7/23/24
DATE COMPLETED: 7/29/24
CASING TYPE/DIAMETER: PVC / 0.75"
SCREEN TYPE/SLOT: Slotted PVC w/ filter Sock
SAND PACK TYPE: 20/40 Silica
GROUT TYPE/QUANTITY: Portland Bentonite
DEPTH TO WATER: —
GROUNDWATER ELEVATION: —
TOTAL DEPTH: 64' BLS

Recovery	PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE ID	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	E.C.
4'			0945			42			0-4' Silt, graybrown, saturated, low Dens	0.56
4'			0950			44			0-2' Silt, As Above 2-4' Clay, gray, Low moist, mod Dens	0.73
3.4'			0955			46			0-2' Clay, gray, As Above 2-3.4' Silt, min clay, gray brown, saturated, Low Dens	0.65
4'			1000			48			0-4' Silt, graybrown, saturated, Low Dens, min clay	0.49
4'			1005			50			0-2.9' Silt, gray saturated, (Flow In possible) 2.9-4' Clay, gray, Low moist, mod Dens, silt lens @ 3.8-4'	0.55
3.5'			1010			52			0-3.5' Clay, gray, Low moist, mod Dens, silt lens @ 0.8-0.9' 2.1-2.2'	1.05
3.1'		NATIVE	1015			54			0-3.1' Clayey Silt, graybrown, mod moist, Low Dens wood @ 0.8' 0-2' Clayey Silt As Above	0.54
3.9'			1020			56			2-3.9' Silt, gray, saturated, Low Dens	0.49
4'			1025	56-58		58			0-2' Clayey Silt, gray, Satured to mod moist, Low Dens, wood @ 2.1' 2-4' Silty Clay, gray, Low moist, mod Dens	0.93
4'			1030			60			0-4' Silt to clayey Silt, gray, saturated, Low Dens	0.57
3.7'			1035			62			0-3.7 Silty Clay, gray, Low moist, mod Dens, silt lens sat @ 1.2-1.7' 3.4-3.7'	0.62
3.6'		NATIVE	1040			64			0-3.6' Silt, gray, sat, Low Dens, clay leaves @ 1.3-1.5', 2-2.1' Increasing in grain size	0.64
						66			TD = 64' BLS	
						68			CD-18A (16-26')	
						70			CD-18B (32-42')	
						72			CD-18C (52-57')	
						74			CD-18D (64-74')	
						76				
						78				
						80				

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow & Lewis
Project Name: Castex
Project Location: Jennings, LA

Project No.: 1009.A75
Date: 7/23/24
Page 1 of 1

0600	Left office in truck # 39, Todd Webb	ICON
0700	Arrived onsite, reviewed HASP	Geoff M.
		Chris M.
0800	ICON set up on CD-18 w/ Geoprobe 7822DT	Jay C.
	pushed to 40' BLS w/ 2.25 x 4' dual tubes	
1000	Finished logging, stopped for Rain	ERM
1138	Resumed drilling and logging @ 40' BLS to 52' BLS	Charles T.
1220	ICON pulled all 2.25" barrels and re-entered same	
	borehole w/ 2.5" Augers - Auger to 52' BLS; pulled Augers	
1410	Resumed logging and drilling w/ 2.25" x 4' Dual Tubes	
	pushed to 64' BLS and stopped because of flow in.	
	ICON left 2.25" @ TD and will set Deep monitor well	
	tomorrow	
1545	Offsite	
1645	Arrived @ office	

TW

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow & Lewis
Project Name: Castex
Project Location: Jennings, LA

Project No.: 1009.A75
Date: 7/24/24
Page 1 of 1

0600	Left office in truck #39, Tom Webb	ICON
0700	Arrived onsite, Review HASP	Geoff M.
0740	while ICON was setting back up on CD-18 the current operator asked ICON to clear the ROAD	Chris M. JAY C.
0800	ICON began pulling 2.25" Barrels that were @ 64' BLS	ERM Charles T.
0840	ICON finished pulling 2.25" Barrels and re-entered same borehole w/ 3.25" casing w/ expendable point pushed to 64' BLS, then pushed 2.25" Barrels w/ expendable point to 74' BLS; Set well @ 64-74' BLS (CD-18D), pulled all 2.25" Barrels, measured water @ 63', Sand @ 62', and Bent Pellets @ 59' BLS; Casing (3.25) @ 57' BLS	
1005	ICON letting pellets hydrate (8 gallons of potable water added durning well installation)	
1030	Stopped for Rain	
1230	ICON began grouting CD-18D using tremie pipe finished grouting to surface	
1400	Left site	
1500	Arrived @ office	

TN

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow & Lewis
Project Name: Castex
Project Location: Jennings, LA

Project No.: 1009.475
Date: 7/25/24
Page 1 of 1

ICON
Geoff M.
Chris M.
Jay C.
ERM
Charles T.

0600 Left office in truck #39, Todd Webb
0700 Arrived onsite, Reviewed HASP
ICON set up on CD-18 location; moved geoprobe a few feet
0730 ICON began augering w/ 2.5" auger
Augered to 48' BLS, pulled augers and re-entered same borehole w/ 3.25" casing, pushed to 52' BLS
Roderic Vaughan w/ LDENR stopped to talk while on his way to observe the current operator perform a wireline log of the oil/gas well at the end of Bruce Lane.
ICON pushed 2.25" barrels w/ expandable point through 3.25" casing to 57' BLS
Pulled all 2.25" barrels, after setting the well @ 52-57' BLS (0.75" slotted PVC w/ filter sock) CD-18C
ICON measured native @ 52', added sand to 51', added Bentonite pellets to 48'; 3.25" casing @ 45' BLS
0950 ICON letting pellets hydrate / added ~2 gallons of potable water
ICON moved the geoprobe over a few feet and pushed 3.25" casing to 32', then pushed 2.25" barrels through 3.25" casing to 42' BLS, set well @ 32-42' BLS (0.75" slotted PVC w/ filter sock) CD-18B
ICON measured native @ 32', added sand to 31', added Bentonite pellets to 28'; casing @ 26' BLS
1100 No water added - letting pellets hydrate
1130 ICON moved the geoprobe over a few feet and began setting up to push an HPT boring
1215 Began pushing HPT probe; TD @ 82' BLS
ICON pulled all HPT probe & rods, placed tremie pipe @ 65' BLS
1400 Grouted to surface - see picture and data for HPT log of CD-18
Stopped work because of rain
Left site
1500 Arrived @ office

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow & Lewis
Project Name: Castex
Project Location: ~~Jennings~~ Jennings, LA

Project No.: 1009.475
Date: 7/26/04
Page 1 of 1

0600	left office in truck #39, Todd WEBB	ICON
0700	Arrived onsite, reviewed HASP	Geoff M.
0730	Icon set up on CD-18B, grouted to surface using tremie pipe and pulled remaining casing	Chris M.
		Jay C.
0845	Icon set up on CD-18C, grouted to surface using tremie pipe and pulled remaining casing; stopped for rain	ERM
	Icon plans to set CD-18A the following week	Charles T.
1130	left site	
1230	Arrived @ office	

TW

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow & Lewis
Project Name: Castex
Project Location: Jennings, LA

Project No.: 1009.475
Date: 7/29/24
Page 1 of 1

0800	left office in truck #39, Todd Webb	ICON
0900	Arrive onsite @ CD-18 location	Geoff M.
	Reviewed HASP	Chris M.
	All personnel onsite	Jay C.
0945	ICON set up on CD-18A w/ Geoprobe 7822 DT	ERM
	pushed 2.25" x 4' barrels w/ expendable point to 26' BLS	Charles T.
	Set well @ 16-26' BLS (0.75" slotted PVC w/ filter sock)	
	measured native @ 24', Added sand to 15', Added Bentonite pellets	
	to 12', Added ~ 3 gallons of water to hydrate pellets	
1100	mobbed to next location CD-19, Set up w/ Geoprobe 7822 DT	
	pushed to 78' BLS w/ 2.25" x 4' Dual Tubes	
	Logged & sampled soil; ERM split soil w/ ICON	
1530	ICON grouted CD-18A to surface using tremie pipe	
1545	Left Site	
1700	Arrived @ office	

TW

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants
91 Apollo Road
Scott, Louisiana 70583
(337) 261-1963 Fax (337) 261-1953

BORING No. CD-19

PROJECT NAME: Castex
PROJECT NUMBER: 1009.A75
LOCATION: Jennings, LA
DRILLING METHOD: Geoprobe 7822 DT
SAMPLING METHOD: 2.25" x 4' Dual Tube
GROUND ELEVATION: —
TOP OF CASING: —
LOGGED BY: TW
REMARKS: 30.17865, -92.62061 +/-9'

DATE STARTED: 7/29/24
DATE COMPLETED:
CASING TYPE/DIAMETER: PVC / 0.75"
SCREEN TYPE/SLOT: Slotted PVC w/ filter sock
SAND PACK TYPE: 20/40 Silica
GROUT TYPE/QUANTITY: Portland Bentonite
DEPTH TO WATER: —
GROUNDWATER ELEVATION: —
TOTAL DEPTH: 80' BLS

Page 1 of 3

Recovery	PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE ID	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	E.C.
1.7'			1125	NS		2, 4			0-1.2' Silty Clay, graybrown, low moist, med Dens, fe	0.77
3.5'			1135	6-8'		6, 8			0-3.5' Clay, graybrown, low moist, med-high Dens, fe	1.72
4'			1140	8-10'		10, 12			0-3' Clay to clayey Silt (0.9-2.5'), graybrown, low moist, med Dens; 3-4' Silt, graybrown, med moist to Sat, low Dens	0.21, 1.30, 0.40
4'						14, 16			0-1' Silt, As Above; 1-4' Clay, graybrown, low moist, high Dens, fe, min silt lens @ 1.8-1.9' Saturated	0.90, 2.15
2.3'						18			0-0.7' Clay, gray, low moist, high Dens; 0.7-2.3' Silty Clay, browngray, low moist, med Dens, Silt lens @ 1.5-1.6' Sat	1.36
2.2'		NATIVE				20			0-2.2' Silty Clay, graybrown, low moist, med Dens, fe, Ca; Sat silt lens @ 1.7-1.9', 0-0.2'	2.42
2.8'						22			0-2.5' Silty Clay, As Above, Silt lenses throughout	2.70
3.4'			1215	22-24'		24			0-3.4' Clay, gray, low moist, high Dens, shell fragments; silt @ 3-3.4'	2.18
2.7'						26			0-2.7' Silt, brown, low moist, Sat @ 1-2', low Dens	1.63
3'						28			0-3' Silt, brown, min Clay, low moist, Sat @ 0.8-1.2', 2-2.5'; shells @ 1.8'	1.61
2.3'						30			0-0.8' Silt, As Above, med moist; 0.8-2.3' Clay, min Silt, greenish gray, low moist, high Dens	2.55
2.2'			1235	29-32'		32			0-0.3' Clay, As Above; 1.3-2.2' Clayey Silt, greenishgray, low moist, low Dens, shells	1.78
2.7'						34			0-2.7' Silt, gray to brown, Saturated, low Dens, shell frag @ 0.6'	1.14
3.6'						36			0-3.6' Silt, brown, saturated, low Dens	1.31
3.6'		NATIVE				38			0-3.6' Silt, As Above	1.23
3.6'						40			0-3.6' Silt, browngray, Sat, low Dens	1.32

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants
91 Apollo Road
Scott, Louisiana 70583
(337) 261-1963 Fax (337) 261-1953

BORING No. CD-19

PROJECT NAME: 1009.A75
PROJECT NUMBER: Castex
LOCATION: Jennings, LA
DRILLING METHOD:
SAMPLING METHOD:
GROUND ELEVATION:
TOP OF CASING:
LOGGED BY: TW
REMARKS:

DATE STARTED: 7/29/24
DATE COMPLETED:
CASING TYPE/DIAMETER:
SCREEN TYPE/SLOT:
SAND PACK TYPE:
GROUT TYPE/QUANTITY:
DEPTH TO WATER:
GROUNDWATER ELEVATION:
TOTAL DEPTH:

Recovery	PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE ID	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	E.C.
3.7'						42			0-3.7' silt, brown gray, sat, low Dens	1.0
3.9'						44			0-3.9' silt, brown gray, sat, low Dens	1.01
3.9'						46			0-2.2' silt, As Above 2.2-3.9' Clay, gray brown, mod Dens, low moist	1.0
2.2'			1315	46-48'		48			0-2.2' clay, gray brown, low moist, mod Dens, wood @ 1.2', 1.6'	1.11
3.3'						50			0-3.3' clay, min silt, gray, low moist, mod Dens, silt lens @ 1.8-2'	1.0
3.7'						52			0-3' clay, As Above 3-3.7' clayey silt, brown gray, mod moist, low Dens	1.40
3.9'						54			0-3.9' silt, min clay, gray brown, saturated, low Dens, clay lens @ 0-0.5', 2.1-2.6', 3.5-3.8'	0.53
2.3'						56			0-2.3' clayey silt, gray brown, Damp, low Dens	0.40
3'		NATIVE				58			0-3' clayey silt, As Above, wood, saturated	0.36
3'						60			0-3' clayey silt, As Above	0.53
2.2'						62			0-1.9' clay, gray, low moist, mod Dens, wood @ 0.5' 1.9-2.2' silt, min clay, mod moist, low Dens, wood @ 2'	1.01
3.7'						64			0-3.7' clayey silt, gray brown, mod moist-sat, low Dens, clay lens @ 1.5-1.7', 3.3-3.5'	1.03
2.6'						66			0-1' clayey silt, As Above, sat 1-2.6' clay, min silt, gray, low moist, mod Dens	1.11
3.9'			1405	66-68'		68			0-2.7' clay, gray, low moist, mod Dens, wood 2.7-3.9' silt, min clay, gray, saturated-mod moist, low Dens, wood	1.35
4'						70			0-3.5' silt, sat, gray, low Dens 3.5-4' clay, min silt, gray, low moist, mod Dens	0.41
2.6'						72			0-2.6' silt, gray, sat, low Dens, clay lens @ 2.1-2.2'	0.35
4'			~~1420~~	(TW) ~~72-74'~~		74			0-4' clay, gray, low moist, mod Dens, wood	1.20
4'						76			0-4' clay, As Above	1.0
4'						78			0-4' clay, gray, low moist, mod-high Dens	1.0
3.9'			0800	78-80'		80			0-3.9' clay, gray, low moist, mod Dens (7/30/24)	1.20

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants
91 Apollo Road
Scott, Louisiana 70583
(337) 261-1963 Fax (337) 261-1953

BORING No. CD-19

PROJECT NAME: Castex
PROJECT NUMBER: 1009.A75
LOCATION: Jennings, LA
DRILLING METHOD:
SAMPLING METHOD:
GROUND ELEVATION:
TOP OF CASING:
LOGGED BY: TW
REMARKS:

DATE STARTED: 7/29/24
DATE COMPLETED:
CASING TYPE/DIAMETER:
SCREEN TYPE/SLOT:
SAND PACK TYPE:
GROUT TYPE/QUANTITY:
DEPTH TO WATER:
GROUNDWATER ELEVATION:
TOTAL DEPTH: 80' BLS

PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
					82			TD = 80' BLS
					84			
					86			CD-19A (10-20')
					88			CD-19B (32-42')
					90			CD-19C (52-62')
					92			CD-19D (94-104') Temp well
					94			
					96			
					98			
					100			
					102			
					104			
					106			
					108			
					110			
					112			
					114			
					116			
					118			
					120			

CD-19D Temp Well

Native

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.

oversight of ICON
ERM taking splits

Groundwater Field Parameter Data
Project Name: Castex
Project No. 1009.A75
Sampled By: ICON

Rev: 2/17

Well# / Size	Time	Temp. °C	DO%	DO mg/l	~~Specific Conductivity mS/cm~~ TDS ppm	Conductivity ~~mS/cm~~ µS/cm	pH SU	pH MV	ORP MV	Turbidity NTU	Vol. Purged gallons
TD: 19D (94-104') / 0.75"	1140	ICON Set up to sample w/ peristaltic pump & check valve									
Date	1142	Pump ON									
7/30/24	1146	32.9	—	—	446	687	7.43	—	80	—	Int.
Total Depth	1154	27.3	—	—	553	830	7.59	—	-93	—	0.5
~106' BTOC	1200	25.9	—	—	450	675	7.63	—	-125	—	1
Water Level	1205	25.8	—	—	492	740	7.70	—	-133	—	2
64.74' BTOC	1211	26.9	—	—	410	618	7.72	—	-151	—	3
Volume gallons	1218	26.6	—	—	407	604	7.76	—	-159	OR	4
0.95	1225	26.3	—	—	355	585	7.83	—	-177	OR	5
Stick Up											
2.31'											
GPS											
Sample Time											
1230	Number of times dried:		~~0~~		Analyses:	SEE COC					

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow & Lewis
Project Name: Castex
Project Location: Jennings, LA

Project No.: 1009.475
Date: 7/30/24
Page 1 of 1

0600	Left office in truck # 39, Todd Webb	ICON
0700	Arrived onsite, Reviewed HASP	Geoff M.
0720	ICON resumed drilling @ 78' BLS (CD-19) pushed to 80' BLS	Chris M.
	Liner stuck ~~[illegible]~~; will pull all 2.25" barrels	Jay C.
	Pulled all 2.25" barrels, logged 78-80' BLS	ERM
	ICON Re-entered same borehole w/ 2.5" Augers	Charles T.
	pushed to 78' BLS	
1015	Pulled Augers then re-entered same borehole w/ 2.25" barrels (expendable point), pushed to 104' BLS, set well @ (0.75" slotted PVC w/ filter sock) 94-104' BLS, pulled up barrels to reveal screen (CD-19D Temp well)	
1050	ICON letting well stablize	
1175	ICON measured water level @ 64.74' BTOC, stick up @ 2.31'	
	TD was not measured because ~~[illegible]~~ tape was to short	
	ICON set up to GW sample CD-19D w/ peristaltic pump with check valve; see field parameter sheet for details	
	Note: Purge water was used to grout CD-19D	
1315	ICON pulled Temp well CD-19D, placed tremie @ TD then pulled all 2.25" barrels while grouting to surface	
1510	ICON began pushing 3.25" casing, after moving over a couple feet (CD-19B) pushed to 32' BLS, then ~~[illegible]~~ pushed 2.25" barrels to 42' BLS, set well @ 32-42' BLS (0.75" slotted PVC w/ filter sock) measured native @ 32' BLS, added sand to 31' BLS, added pellets to 28' BLS, casing @ 27' BLS - no water added	
1600	Left site	
1700	Arrived @ office	

TW

ICON Oversight - MW Installs

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow & Lewis
Project Name: Castex
Project Location: Jennings, LA

Project No.: 1009.A75
Date: 7/31/2024
Page 1 of 2

On Site

Eric Montesano - HET
Charles Trahan - ERM
Geoff Miller
Chris Miller
Jay Culpepper
ICON

0615 - EM left HET in #39.
0700 - Arrive on site @ CD-19 location
80°F, sunny. ERM on site
- ICON on site. Began grouting CD-19B (32-42') set on 7/30.
- Poured bentonite/portland mixed grout through (*) 3¼" rods left @ 27' BLS. Removed rods as they filled.

* through trim pipe dropped through 3¼" rods. EM

0830 - Grouted CD-19B to surface. Used ~ 1 Legal.
- Move over ~3' to install well.
- Drilled 2.5" x 5' solid stem augers to 38' BLS. Pulled all pipe out of hole.
- Re-entered hole w/ 3¼" x 4' rods w/ point. Drilled 3¼" casing to 52' BLS.
- Dropped 2¼" x 4' rods to 52' BLS inside of 3¼ casing. Drilled 2¼ rods to 62' BLS.
- Placed 10' of 3/4" PVC, 0.010" slot, w/ filter sock screen & 60' of 3/4" PVC riser attached to 62' BLS.

1045 - Pulled all 2¼ rods out of hole. Began adding pellets. Native sand filled in above & around screen. Pulled 3¼ casing as pellets were added.
↳ ICON having issues w/ pellets & native sand bridging in 3¼ barrels. Bentonite seal possibly includes native sand.

CD-19C (52-62') Well set.
Native = 52'
\+ Pellets = 46

3¼" rods left @ ~~23'~~ 27' BLS EM

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow & Lewis
Project Name: Castex
Project Location: Jennings, LA

Project No.: 1009.A75
Date: 7/31/2024
Page 2 of 2

1245 – ICON setting up to grout CD-19C well set today.
– Pulled 3/4 rods as grout was poured through trim pipe. Trim pipe was dropped to top of bentonite, through 3/4 rods. Removed as they filled.
↳ Used ~ 25 gal.
– Move over to install CD-19A. (~3')
– Drilled 2 1/4" rods to 20' BLS. Placed 10' of 3/4" PVC, 0.010" slot, screen w/ filter sock; attached 15' of 3/4" riser & placed @ TD.
– Pulled all 2 1/4" rods out of hole. Added sand & pellets.

1430 – CD-19A (10-20') well set.
Native = 18'
Sand = 9'
Pellets = 6'
– ICON loaded GP 7822 & moved to next location. Cleaned work area.
1500 – All personell off site
– Arrive @ HET

EM

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants
91 Apollo Road
Scott, Louisiana 70583
(337) 261-1963 Fax (337) 261-1953

BORING No. CD-20

PROJECT NAME: Castex
PROJECT NUMBER: 1009.A75
LOCATION: Jennings, LA
DRILLING METHOD: GP 7822DT
SAMPLING METHOD: 2'/4" x4' Dual Tube
GROUND ELEVATION:
TOP OF CASING:
LOGGED BY: EM
REMARKS: 30.1766499, -92.6200773

DATE STARTED: 8-1-2024
DATE COMPLETED: 8-1-2024
CASING TYPE/DIAMETER:
SCREEN TYPE/SLOT:
SAND PACK TYPE:
GROUT TYPE/QUANTITY:
DEPTH TO WATER:
GROUNDWATER ELEVATION:
TD = 48' BLS

RECOVERY	PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE ID	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	EC (mS/cm)	PICTURES
				ERM NO SPLIT	X				0-1.1' Clay, min silt, gray + brown, low moist, low dense		
									1.1-1.7' Clay, brown + gray, low moist, low dense	1.49	
2.7'			0750			2	CL		1.7-2.7' Clay, brown + gray, orange Fe staining, low moist, low to mod dense	0.96	
			0755			4					
				ERM SPLIT	X				0-4.0' Clay, gray + orange Fe staining, low moist, mod to high dense, increasing w/ depth	1.34	
4.0'			0800			6	CL				
				ERM SPLIT	X					1.84	
			0805			8					
							CL		0-0.3 SAA	1.45	
4.0'			0810			10			0.3-2.3' Silty Clay, clay decrease w/ depth, gray, low moist, low dense, no silt @ 1.3-1.5', 2.0-2.2'		
							ML		2.3-4.0' Clayey Silt, brown, high moist, low dense, clay lens @ 2.6, 3.4-3.7'	1.21	
			0815			12					
							ML		0-0.5' SAA, silt decreasing w/ depth	2.15	
			0820			14			0.5-2.5' Clay, gray w/ orange Fe staining, low moist, high dense, Ca nodules @ 2.0'		
2.5'							CL			2.66	
			0825			16					
							ML		0-0.4' Silt, brown, sat, low dense		
2.4'							CL		0.4-2.4' Clay, gray + brown, low moist, mod dense, silt lens @ 0.8-1.0'	2.11	
			0830			18					
2.4'							CL		0-2.4' Clay, gray & brown, low moist, mod dense in clay, low dense in silt lenses @ 0.5', 0.7', 0.9', 1.1', 1.3'	2.30	
			0835			20					
				ERM SPLIT	X				0-1.1' SAA, silt lens @ 0.4-0.5'		
3.4'							CL		1.1-3.4' Clay, gray, low moist, mod to high dense, min silt @ 2.7-3.4'	2.60	
			0900			22					
							CL		0-0.3' Silty Clay, gray, low moist, low dense		
2.6'							ML		0.3-2.6' Silt, brown, sat, low dense	1.17	
			0905			24					
							ML		0-2.0' SAA		
3.9'									2.0-3.9' Silt, high dry, silt decrease w/ depth, brown, low moist, low dense, Ca frags @ 2.0-2.8', clay @ bottom	1.15	
			0910			26					
							CL		0-0.5' Silty Clay, brown, low moist, low dense.		
2.6'									0.5-2.6' Clay, brown + gray, low moist, mod-high dense, silty clay @ 1.3-2.2'	1.44	
			0915			28					
							ML		0-2.1' Silt, brown, sat, low dense		
3.8'							CL		2.1-3.8' Clay, brown + gray, low moist, mod dense	1.75	
			0920			30					
				ERM SPLIT	X				0-2.5' Clay, brown, low moist, mod dense, silt lens @ 0.3-0.6', + 1.6-1.7'		
2.5'							CL			1.91	
			0925			32					
							CL		0-3.9' Clay, gray, low moist, low dense, silty @ 1.9-3.0'		
3.9'										1.43	
			0930			34					
							CL		0-1.2' SAA, silty @ 0-0.4'		
3.0'							ML		1.2-3.0' Silt, brown, sat, low dense	0.88	
			0935			36					
							ML		0-1.1' SAA		
3.8'							CL		1.1-2.1' Silty Clay, brown, low moist, low dense	0.93	
			0940			38	ML		2.1-3.8' Silt, brown, sat, low dense, clay lens @ 2.9-3.1'		
3.3'							ML		0-3.3' Silt, brown, sat, low dense	0.84	
			0945								

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants
91 Apollo Road
Scott, Louisiana 70583
(337) 261-1963 Fax (337) 261-1953

BORING No. CD-20

PROJECT NAME: Castex
PROJECT NUMBER: 1009.A75
LOCATION: Jennings, LA
DRILLING METHOD: Geoprobe 7822DT
SAMPLING METHOD: 2'/4" x 4' Dual Tube
GROUND ELEVATION:
TOP OF CASING:
LOGGED BY: EM
REMARKS:

DATE STARTED: 8-1-2024
DATE COMPLETED: 8-1-2024
CASING TYPE/DIAMETER:
SCREEN TYPE/SLOT:
SAND PACK TYPE:
GROUT TYPE/QUANTITY:
DEPTH TO WATER:
GROUNDWATER ELEVATION:
TD = 48' BLS

RECOVERY	PID (ppm)	SCREENED INTERVAL	SAMPLE TIME	SAMPLE ID	EXTENT	DEPTH (FT BLS)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	EC (mS/cm)	PICTURES
						40					
3.8'			0950	ERM SPLIT	X	42	ML CL		0-1.5' SAA, clayey silt @ 1.2-1.6' 1.5-3.8' Clay, brown, low moist, damp @ top, low dense, min silt decrease w/ depth.	0.90	
2.3'			0955			44	CL ML		0-1.8' Clay, gray, low moist, low dense increasing w/ depth 1.8-2.3' Clayey Silt, gray, damp, low dense	1.57	
~~2.8'~~ 3.4'			1000			46	ML CL ML		0-1.9' SAA 1.9-2.8' Silty Clay, gray, low moist, low dense 2.8-3.4' Clayey Silt, damp, low dense, gray.	0.92	
2.2'			1005			48	ML		0-2.2' Silt, sat, gray, low dense	0.60	
						50					
						52					
						54					
						56					
						58					
						60					
						62					
						64					
						66			* HPT probe drilled to ~82' BLS		
						68					
						70					
						72					
						74					
						76					
						78					
						80					

ICON oversight — SB Install, HPT install

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow & Lewis
Project Name: Castex
Project Location: Jennings, LA

Project No.: 1009.A75
Date: 8-1-2024
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On Site
Eric Montesano — HET
Charles Trahan — EAM
Geoff Miller, Chris Miller, Jay Culpepper — ICON

0615 — EM left HET in #39.
0700 — Arrive on site @ CD-20 location. 78°F, sunny.
0715 — All personell on site.
— ICON set up of CD-20 location w/ Geoprobe 7822 DT.
— Began drilling. Using 2'1/4"x4' Dual Tube to sample.
— See boring log.

CD-20 (30.17666499, -92.60200773)

TD = 48' (2'1/4's)
TD = 82' (HPT)
— Liner stuck in sample barrel @ 48' BLS. Pulled all pipe out of hole. Re-entered w/ point to 48'.
1000 — ~~Liner~~ Flow in sand @ 48' BLS. Pulled all pipe out of hole.
1045 — Re-entered hole w/ 3'1/4"x4' Dual tube w/ point attached.
↳ Drilled 3'1/4's to 36' BLS.

— Move over ~3' and set up to HPT probe on CD-20.
— HPT pushed to ~82' BLS.
1150 — ICON pulled all pipe out of hole.
1300 — Re-entered hole w/ 2.5"x5' solid stem augers.
↳ Augered to 72' BLS.
1400 — Landowner on site.
— ICON stopped work. CD-20 location not on property of interest.

↓

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Project Name: Castex
Project Location: Jennings, LA

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1415 – ICON pulling all augers out of hole.
– Dropped trim pipe to ~55' BLS. Poured grout through trim & removed as they filled. Grouted to surface. Used ~35 gal

– Pulled 3¼'s out of other hole after dropping trim to TD. Grouted through trim. Same as above. Used ~ 20 gal.

1615 – Cleaned work area. All personell off site.
1710 – Arrive @ HET

EM

ICON oversight - Soil sampling

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Environmental Consultants

Client: Liskow & Lewis
Project Name: Castex
Project Location: Jennings, LA

Project No.: 1009.A75
Date: 8-2-2024
Page 1 of 1

0630 - EM left HET in #39.
0725 - EM on site @ CD-19 location.
- All personell on site. ICON setting up to hand auger. ~ 81°F, Sunny.
- Mob to HA-10 location.
ICON began drilling w/ hand auger
↳ Dutch head

on site
Eric M. - HET
Charles T. - ERM
Geoff M.
Chris M.
Jay C.
] ICON

HA-10 (30.1787721, -92.6192609)

			EC
0810	0-2	Clay, brown & red brown, Fe stain, low to mod dense	1.66
0815	2-4	SAA & Clay, min silt, gray, low moist, mod dense	2.35
0820	4-6	Clay, min silt, gray & brown, low moist, mod dense	2.85

- ERM split all samples. Collected terracores on each.

- ICON completed work for today. Grouted HA-10 from surface. Used ~ 2 gal.

0900 - All personell off site.
1000 - Arrive @ HET

EM

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Lisrow and Lewis
Project Name: Castex
Project Location: Jennings, LA

Project No.: 1009.A75
Date: 8/6/2024
Page 1 of 2

Icon
Geoff Miller
ERM
Charles Trahan

- 0845 - Leaving the office. Truck #36
- 0940 - Arrived on site. Geoff setting up
  - CD-18A

WD = 21.08 Stick up 1.98
Total depth = 27.91 Pump On 0950
- Well dried up
- CD-18B

Stick up = 2.05' Water depth = 21.04' Total Depth = 43.91'
Pump On 1009
Sampling 1050, TDS, Chlorides, BTEX, TPH-G, TPH-D and O, Cations, Anions, Total Metals [redacted] Radium
- CD-18A Pump on 1148
- CD-18C

Stick up = 1.75' Total depth = 58.63'
Water level = 26.03'
Pump on 1159 Sample time 1250
TDS, Chlorides, BTEX, TPH-G and D and O, Cations, Anions, Total Metals → Change to Dissolved because turbidity, Radium
- CD-18A → Sample time 1330 → Didn't finish Dried up
- CD-18D

Stick up = 2.02' Water depth = 28.28'
Total Depth = 75.89'
Pump On 1350 → TDS, Chlorides, BTEX, TPH-G, D, and O, Cations, Anions, Totals Metals, Radium
Sample time 1430 →

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Environmental Consultants

Client: Liskow and Lewis
Project Name: Castex
Project Location: Jennings, LA

Project No.: 1009.A75
Date: 8/6/2024
Page 2 of 2

-1505 - Back to CD-18A sampling
-1515 - Team going pick purge water in 55 gal drum onsite
- Finish rads tomorrow. Slow well. Other samples same as other wells
-1610 - Lexix site
-1700 - Back at the office

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.

Groundwater Field Parameter Data
Project Name: Castex
Project No. 1009.A75
Sampled By: Icon / ERM

Rev: 2/17

Well# / Size	Time	Temp. °C	DO%	DO mg/l	TDS ~~Specific Conductivity mS/cm~~	Conductivity mS/cm	pH SU	pH MV	ORP MV	Turbidity NTU	Vol. Purged
CD-18A	0950	26.8			460	692	7.44		-19	–	Initial
Date	0952	23.7			407	608	7.26		-51	–	0.15
8/6/24	0954	23.4			466	691	7.49		-94	–	0.25
Total Depth	0955	22.8			480	714	7.50		-113	–	0.35 Dry
27.91'	1149	24.4			439	653	7.61		55	–	0.5
Water Level	1151	24.6			474	702	7.86		-79	–	0.6
21.08'											
Volume											
One = .16 gal three = .48 gal											
Stick Up											
1.98'											
GPS											
Sample Time											
1330	Number of times dried: 1				Analyses:						

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.

Groundwater Field Parameter Data
Project Name: Castex
Project No. 1009.A75
Sampled By: Icon / ERM

Rev: 2/17

Well# / Size (check value)	Time	Temp. °C	DO%	DO mg/l	TDS ~~Specific Conductivity mS/cm~~	Conductivity mS/cm	pH SU	pH MV	ORP MV	Turbidity NTU	Vol. Purged
CD-18B	1009	29.7			819	1198	7.32		-77	—	Initial
Date	1015	24.1			821	1190	7.40		-134	—	0.5
8/8/24	1021	23.6			870	1255	7.30		-139	—	1.0
Total Depth	1030	23.4			948	1363	7.24		-131	29	2.0
43.91'	1040	23.9			890	1284	7.27		-131	5.5	3.0
Water Level											
21.04'											
Volume											
One = .52 gal ~~three~~ = 1.56 gal											
Stick Up											
2.05'											
GPS											
Sample Time											
1050	Number of times dried: 0				Analyses:						

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.

Groundwater Field Parameter Data
Project Name: Castex
Project No. 1009.A75
Sampled By: Icon/ERM

Rev: 2/17

Well# / Size (check Valve)	Time	Temp. °C	DO%	DO mg/l	TDS ~~Specific Conductivity mS/cm~~	Conductivity mS/cm	pH SU	pH MV	ORP MV	Turbidity NTU	Vol. Purged
CD-18C	1205	24.6			570	834	7.54		-119	—	0.5
Date	1212	24.2			589	863	7.43		-119	-	1
8/6/24	1225	24.6			626	925	7.38		-108	-	2
Total Depth	1233	24.2			626	917	7.36		-116	—	2.5
58.63'	1239	23.9			636	927	7.33		-116	413	3
Water Level											
26.03'											
Volume											
One = .75 gal three = 2.25 gal											
Stick Up											
1.75'											
GPS											
Sample Time											
1250	Number of times dried: 0				Analyses:						

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.

Groundwater Field Parameter Data
Project Name: Castex
Project No. 1009.A75
Sampled By: Icon / ERM

Rev: 2/17

Well# / Size (Check Valve)	Time	Temp. °C	DO%	DO mg/l	TDS ~~Specific Conductivity mS/cm~~	Conductivity mS/cm	pH SU	pH MV	ORP MV	Turbidity NTU	Vol. Purged
CW-18D	1354	24.3			513	759	7.56		-114	—	0.5
Date	1400	23.7			575	838	7.64		-122	—	1
8/6/24	1409	23.9			570	840	7.40		-120	—	2
Total Depth	1418	24.1			575	845	7.38		-122	—	3
75.89'	1425	24.3			573	842	7.37		-120	9.68	4
Water Level											
28.28'											
Volume											
One = 1.09 gal three = 3.27 gal											
Stick Up											
2.02'											
GPS											
Sample Time											
1430	Number of times dried: 0				Analyses:						

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants

Client: Liskow and Lewis
Project Name: Castex
Project Location: Jennings, LA

Project No.: 1001.A75
Date: 8/7/2024
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- 0625 - Leaving the Office. Truck #36
- 0715 - Arrived on site. Icon set up.
CD-18A - ERM filling up gallon radium jug.
Quit and move to new wells. Icon will try again later. (Slow well)
- 0805 - Icon setting up on 3 well cluster
- 0815 - CD-19A Total depth = 22'
Stick up = 2.21' Water Level = 20.05'
Pump On 0824 Sample time 0850
Icon doing TDS, Chlorides, BTEX, TPH-G, D, and O, Cations, Anions, Total Metals. Not collecting radium jug.
Well is too slow per Icon.
- 1150 - End sampling
- 1200 - Icon sampling CD-18A again
- 1250 - Finished sampling CD-18A. Icon has a radium jug
- CD-19B Stick up = 2.10' total depth = 43.89'
Water Level = 20.11'
Pump On 1303 Sample time 1330
TDS, Chlorides, BTEX, TPH-G, D, and O, Cations, Anions, Total Metals, and Radium
- Finish sampling 1400
- CD-19C Stick up = 2.05' Total depth = 64.18'
Water level = 34.71' • Using check valve
Pump On 1411 Sample time 1500
TDS, Chlorides, BTEX, TPH-G, D, and O, Cations, Anions, Total [redacted] Metals, Radium
Finish sampling 1545 • Icon disposing of purgewater in drum
1615 - Leave site 1700 - Back at office

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.

Groundwater Field Parameter Data
Project Name: Castex
Project No. 1009.A75
Sampled By: Icon / ERM

Rev: 2/17

Well# / Size	Time	Temp. °C	DO%	DO mg/l	TDS ~~Specific Conductivity mS/cm~~	Conductivity mS/cm	pH SU	pH MV	ORP MV	Turbidity NTU	Vol. Purged
CD-19A	0824	28.9			2883	3879	7.14		98	—	initial
Date	0825	25.8			2864	3827	6.97		56	—	0.1
8/7/24	0830	27.3			2885	3870	6.97		-45	—	0.2
Total Depth	0842	28.7			2892	3896	7.33		-101	4.91	0.3
22'											
Water Level											
20.05'											
Volume											
One = .04 gal three = .12 gal											
Stick Up											
2.21'											
GPS											
Sample Time											
0850	Number of times dried: 0				Analyses:						

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.

Groundwater Field Parameter Data
Project Name: Castex
Project No. 1009.A75
Sampled By: Icon / ERM

Rev: 2/17

Well# / Size	Time	Temp. °C	DO%	DO mg/l	TDS ~~Specific Conductivity mS/cm~~	Conductivity mS/cm	pH SU	pH MV	ORP MV	Turbidity NTU	Vol. Purged
CD-19B	1306	34.0			1834	2543	7.92		-138	—	initial
Date	1310	26.4			1868	2550	7.79		-142	—	0.5
8/7/24	1315	25.2			1857	2546	7.58		-141	6.40	1
Total Depth	1318	24.9			1843	2536	7.50		-139	3.99	1.5
43.89'	1322	25.0			1849	2544	7.45		-136	2.68	2
Water Level	1327	25.2			1841	2527	7.45		-131	1.59	2.5
20.11'											
Volume											
one = .55 gal three = 1.65 gal											
Stick Up											
2.10'											
GPS											
Sample Time											
1330	Number of times dried: 0				Analyses:						

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.

Groundwater Field Parameter Data
Project Name: Castex
Project No. 1009.A75
Sampled By: Icon / ERM

Rev: 2/17

Well# / Size (Check Valve)	Time	Temp. °C	DO%	DO mg/l	TDS [redacted]	Conductivity mS/cm	pH SU	pH MV	ORP MV	Turbidity NTU	Vol. Purged
CD-19C	1414	32.5			540	818	8.60		24	—	initial
Date	1425	26.7			579	856	8.01		-110	—	1
8/7/24	1437	26.6			581	858	7.74		-109	—	2
Total Depth	1445	26.2			621	909	7.65		-123	—	2.5
64.18'	1453	27.4			601	887	7.67		-129	—	3
Water Level											
34.71'											
Volume											
one = 0.68 gal three = 2.04 gal											
Stick Up											
2.05'											
GPS											
Sample Time											
1500	Number of times dried: 0				Analyses:						

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.

Groundwater Field Parameter Data
Project Name: CASTEX
Project No. 1009.A75
Sampled By: DCC

Rev: 2/17

Well# / Size	Time	Temp. °C	DO%	DO mg/l	Specific Conductivity mS/cm	Conductivity mS/cm	pH SU	pH MV	ORP MV	Turbidity NTU	Vol. Purged
CD-10C	1445										
Date											
6/13/22		UNABLE TO SAMPLE, DRY WELL									
Total Depth											
72.5											
Water Level											
71.56											
Volume											
Stick Up											
2.52											
GPS											
Sample Time											
	Number of times dried:				Analyses:						

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.

Groundwater Field Parameter Data
Project Name: CASTEX
Project No. 1009.A75
Sampled By: DC

Rev: 2/17

Well# / Size	Time	Temp. °C	DO%	DO mg/l	~~Specific Conductivity mS/cm~~ TDS	Conductivity mS/cm	pH SU	pH MV	ORP MV	Turbidity NTU	Vol. Purged
G-14A	PERISTALTIC			PUMP	USED	TO	SAMPLE,				
Date	TURBIDITY	@		TD							
6/13/22	1055	27.2			836.8	1197	6.74		-22	—	0
Total Depth	1100	24.0			750.9	1084	6.84		-33	—	0.5
27.63	1105	23.6			753.5	1097	7.16		26	680	1.0
Water Level	1117	24.4			762.4	1097	7.29		66	111	1.5
18.84	1128	24.4			751.3	1101	7.29		76	15.2	2.0
Volume	1139	24.2			762.4	1101	7.30		88	9.82	2.5
	1141	STOP		PURGING							
Stick Up											
1.72											
GPS											
Sample Time											
	Number of times dried:				Analyses:						

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.

Groundwater Field Parameter Data
Project Name: CASTEX
Project No. 1009.A75
Sampled By: DC

Rev: 2/17

Well# / Size	Time	Temp. °C	DO%	DO mg/l	~~Specific Conductivity mS/cm~~ TDS	Conductivity mS/cm	pH SU	pH MV	ORP MV	Turbidity NTU	Vol. Purged
CO-16A2	SAMPLED WITH PERISTALTIC PUMP, TUBING										
Date	SET AT TD										
6/13/24	1316	26.6			695.3	1012	7.85			—	—
Total Depth	1317	24.5			712.3	1032	7.85			—	0
46.65	1321	23.9			797.2	1147	7.74			—	0.5
Water Level	1326	23.9			841.7	1209	7.85			21.2	1.0
18.94	1332	24.1			844.7	1209	7.55			3.21	1.5
Volume	1336	24.1			855.4	1229	7.49			1.89	2.0
	1342	23.9			863.7	1243	7.45			2.89	2.5
Stick Up											
2.0											
GPS											
Sample Time											
	Number of times dried: Ø				Analyses: FULL KIT						

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.

Groundwater Field Parameter Data
Project Name: CASTEX
Project No. 1009.A75
Sampled By: Doe

Rev: 2/17

Well# / Size	Time	Temp. °C	DO%	DO mg/l	~~Specific Conductivity mS/cm~~	Conductivity mS/cm	pH SU	pH MV	ORP MV	Turbidity NTU	Vol. Purged
D-16A	SAMPLED WITH PERISTALTIC PUMP, TURBIDITY										
Date	TD OF WELL										
6/13/24	1511	PUMP ON									
Total Depth	1512	31.9			352.2	534	7.20		70	—	0
109.10	1515	27.3			108.4	611	8.75		-40	—	0.5
Water Level	1521	26.0			419.7	624	7.79		-90	OR	1.0
23.13	1528	27.0			430.2	644	7.69		-78	368	1.5
Volume	1535	27.3			430.6	643	7.53		-63	752	2.0
	1543	22.3			428.9	640	7.57		-63	OR	2.5
Stick Up	1544	PUMP OFF									
GPS											
Sample Time											
1550	Number of times dried: 0				Analyses: FULL KIT						

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.

Groundwater Field Parameter Data
Project Name: CASTEX
Project No. 1009.A25
Sampled By: BLC

Rev: 2/17

Well# / Size	Time	Temp. °C	DO%	DO mg/l	COND ~~Specific Conductivity mS/cm~~	TDS ~~Conductivity mS/cm~~	pH SU	pH MV	ORP MV	Turbidity NTU	Vol. Purged
CD-17A1	SAMPLED WITH PERISTALTIC PUMP, TUBING										
Date	@ TD OF WELL										
6/18/24	1441	25.0			1376	888.4	7.85		126	—	0
Total Depth	1448	25.3			1509	1139	7.57		121	—	0.5
26.49	1453	WELL DRIED, PUMP OFF									
Water Level	1615	PUMP ON									
20.0	1618	23.3			1545	1128	7.66				
Volume	1620	WELL DRIED, PUMP OFF							-21	—	1.0
Stick Up											
6.0											
GPS											
Sample Time											
	Number of times dried: 25				Analyses: FULL KIT						