Appendix B

Core Analysis

Whitetail Operating, LLC
Louisiana Green Fuels No. 1 (SN975841)
Stratigraphic Test Well

Geostock Sandia

Helical CT Scan Report of 1"" samples

Client: Strategic Biofuels LLC

Well: Louisiana Green Fuels Well 001

Project: HH-108056

October 4, 2021

All plugs were helical CT-scanned using a single energy of 135 kV and 400mA.
Each plug has 10 equal distanced longitudinal oblique images and 10 cross-sectional images.
Spatial Resolutuion of .300 mm per voxel

Sample List

Click on plug number to go to sample overview

Well: Louisiana Green Fuels Well 001

Client: Strategic Biofuels LLC
Project: HH-108056
Well: Louisiana Green Fuels Well 001
Number of Plugs: 1
Sample Diameter: 1"

Plug N°	Core N°	Depth [ft]
5-14-2		5913.40

Sample overview

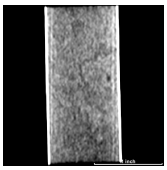
Click on images to view sample slide

Well: Louisiana Green Fuels Well 001

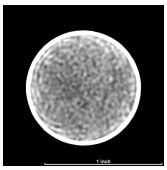
Back to Sample list of Field

Sample 5-14-2

Longitudinal



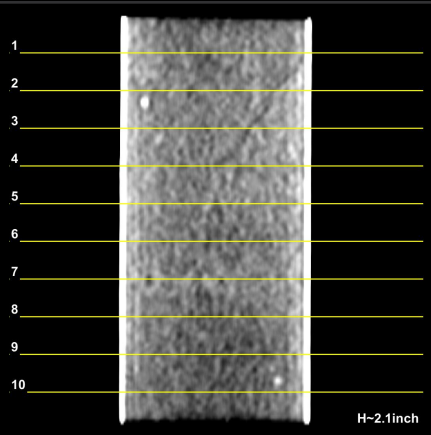
Cross Sectional

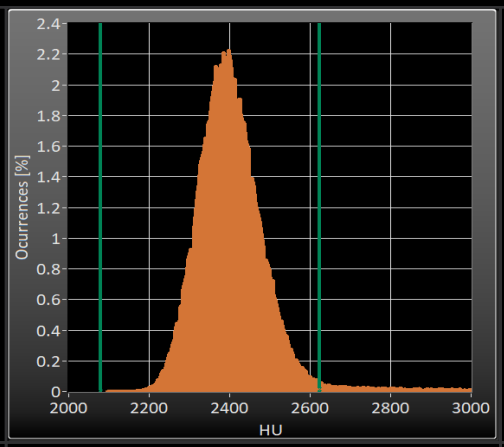


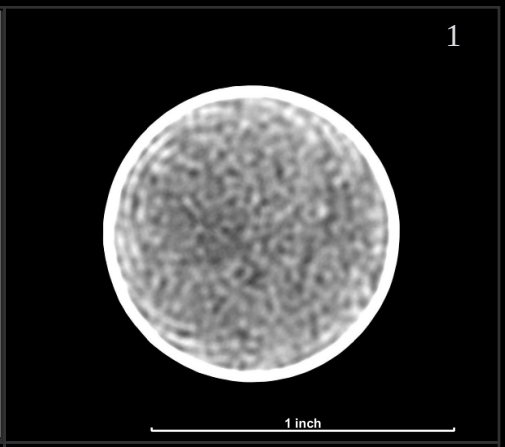
Sample 5-14-2 - Depth: 5913.40[ft]

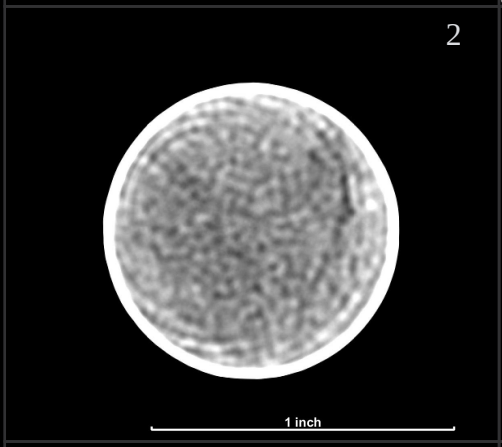
Well: Louisiana Green Fuels Well 001

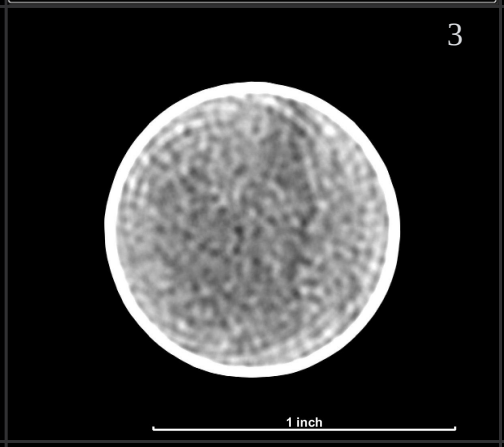
Back to Sample Overview

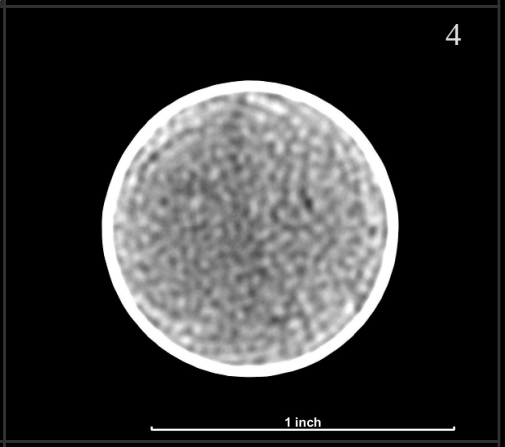


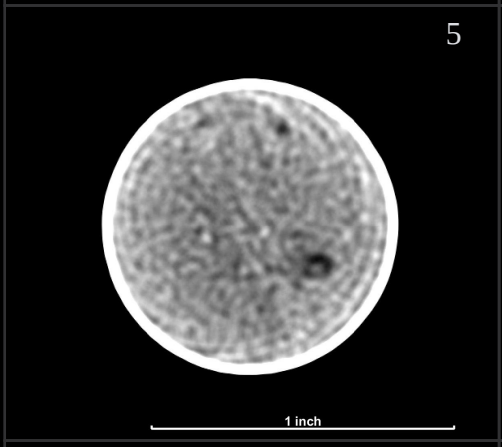


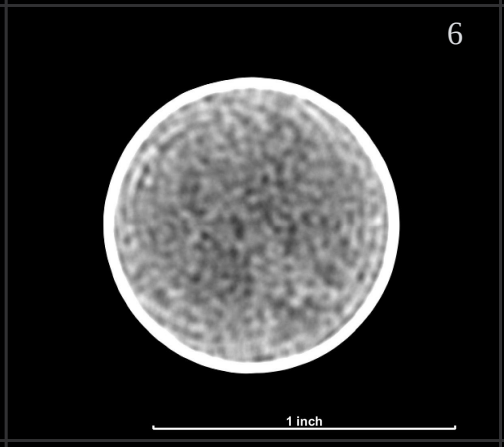


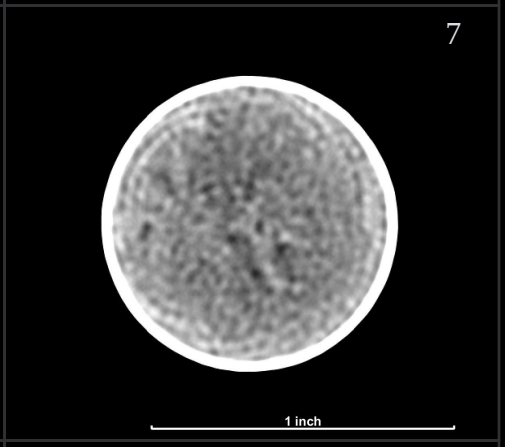


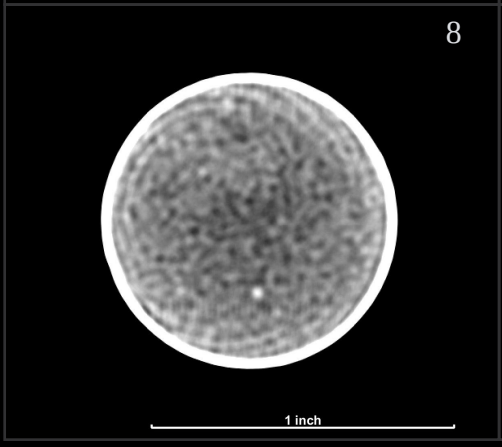


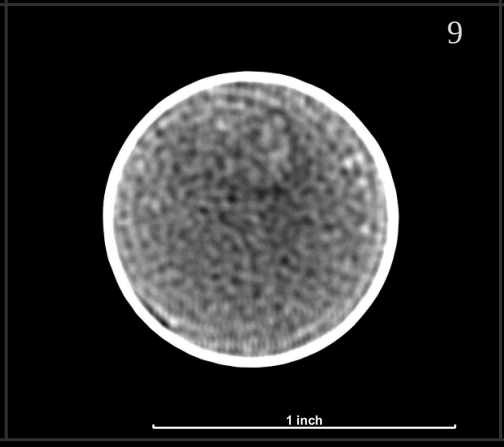


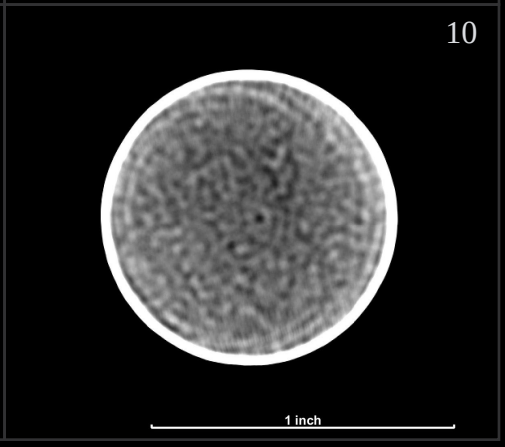








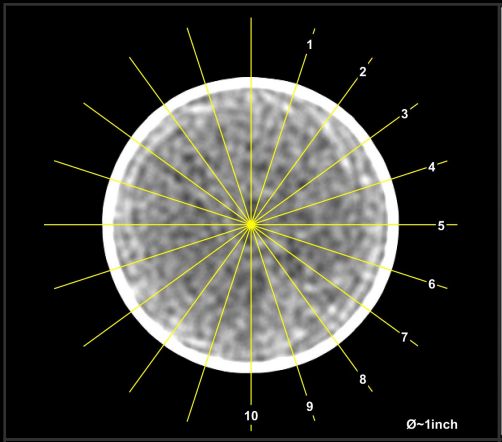


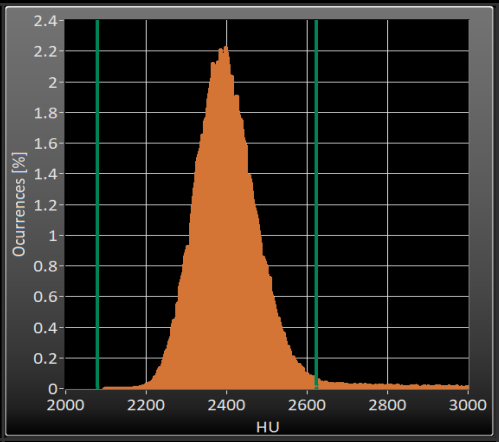


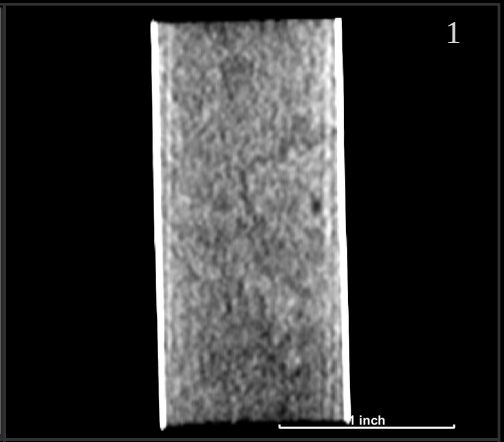
Sample 5-14-2 - Depth: 5913.40[ft]

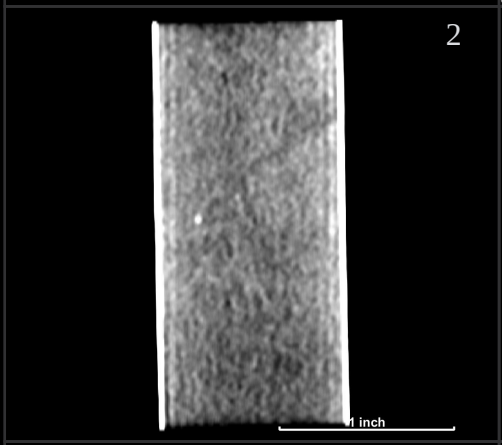
Well: Louisiana Green Fuels Well 001

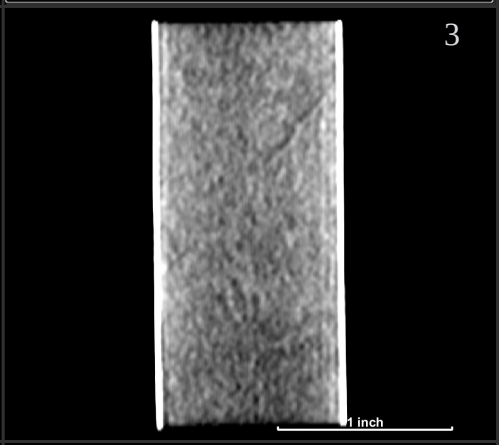
Back to Sample Overview

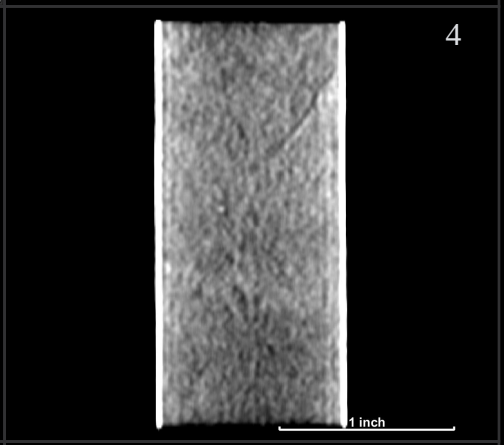


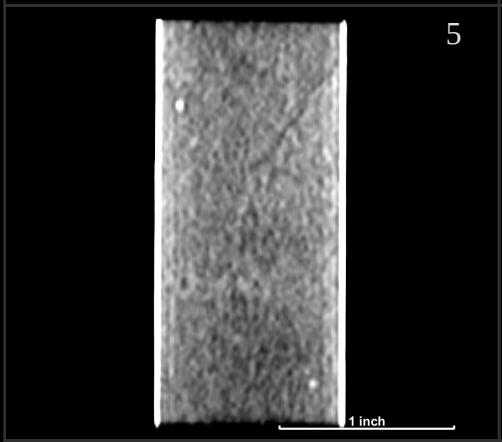


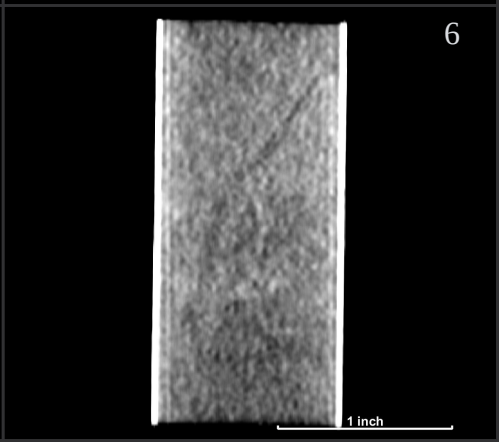


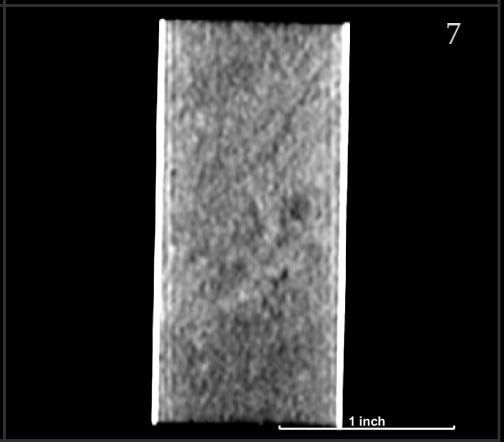


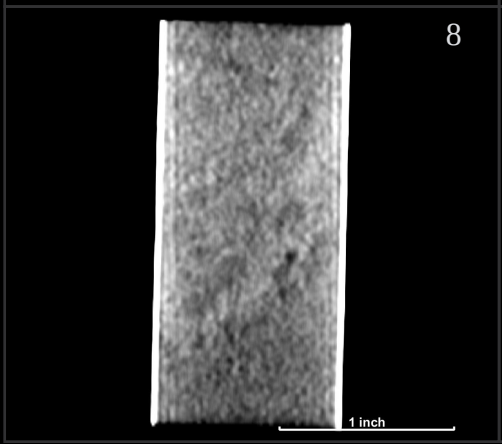


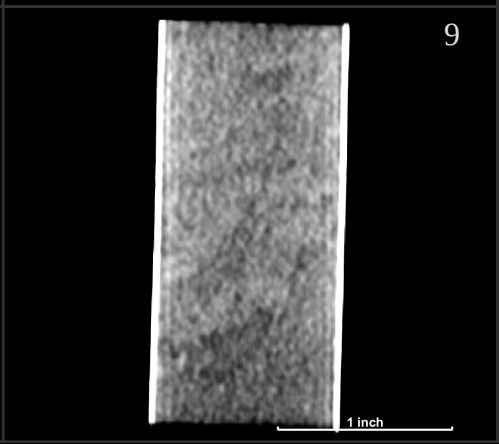


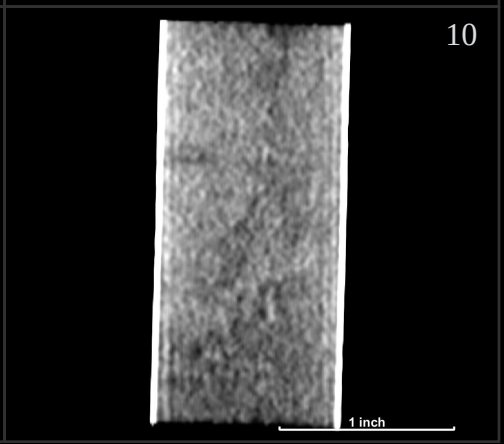












Disclaimer

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SUMMARY OF CONVENTIONAL CORE ANALYSES RESULTS

Whole Core Section Convection Dried at 140°F

Strategic Biofuels LLC
Louisiana Green Fuels Well 001

Caldwell Parish, Louisiana
File: HH-108056

Core Number	Sample Number	Sample Depth, feet		Net Confining Stress, psi	Permeability, millidarcys		Porosity, percent		Grain Density, gm/cc
		Top	Bottom		to Air	Klinkenberg	Ambient	NCS	
2	2-5 W/C	4694.15	4694.60	2000	0.0044	0.0016		7.6	2.74

11-29-21

SUMMARY OF CONVENTIONAL CORE ANALYSES RESULTS

Convection Dried at 140°F

Strategic Biofuels LLC
Louisiana Green Fuels Well 001

Caldwell Parish, Louisiana
File: HH-108056

Core Number	Sample Number	Sample Depth, feet	Net Confining Stress, psi	Permeability, millidarcys		Porosity, percent		Grain Density, gm/cc
				to Air	Klinkenberg	Ambient	NCS	
3	3-1H	4911.50	1900	110.	98.2	17.4	17.2	2.67
3	3-2H	4912.85	1900	+		5.8		2.67
3	3-3H	4913.20	1900	+		5.7		2.66
3	3-4H	4914.65	1900	94.0	83.0	19.6	19.4	2.67
3	3-5H	4915.30	1900	139.	125.	20.2	20.0	2.67
3	3-6H-1	4916.50	1900	207.	189.	20.5	20.3	2.68
3	3-7H	4917.50	1900	148.	133.	21.0	20.9	2.67
3	3-8H-1	4918.40	1900	42.2	35.8	20.1	19.9	2.72
3	3-9H	4919.50	1900	0.032	0.015	5.9	5.8	2.72
3	3-10H	4920.90	1900	1.95	1.42	16.6	16.4	2.68
3	3-11H	4921.70	1900	0.419	0.295	13.5	13.4	2.74
3	3-12H (pf)	4922.80	1900	0.796	0.569	6.8	6.6	2.68
3	3-13H	4923.50	1900	0.536	0.384	13.5	13.3	2.67
3	3-14H	4924.50	1900	2.63	1.93	16.5	16.3	2.66
3	3-15H	4925.50	1900	4.79	3.61	17.1	16.9	2.69
3	3-17H	4927.50	1900	23.5	19.3		20.9	2.75
3	3-18H	4928.50	1900	0.021	0.0088	7.6	7.4	2.70
3	3-19H	4929.50	1900	9.15	7.12	18.4	18.2	2.73
3	3-20H	4930.50	1900	8.51	6.59		21.5	2.67
3	3-21H	4931.50	1900	1.45	1.05	17.1	16.9	2.68
3	3-22H	4932.50	1900	41.4	35.1		21.2	2.68
3	3-23H	4933.50	1900	0.476	0.342	15.1	14.9	2.71
3	3-24H	4934.50	1900	2.53	1.86	16.8	16.6	2.68
3	3-25H	4935.50	1900	14.0	11.1		21.2	2.66
3	3-26H	4936.50	1900	3.65	2.71	18.2	18.0	2.70
3	3-27H	4937.50	1900	13.7	10.9	19.5	19.2	2.72
4	4-1H	5250.50	2000	3.79	2.82		21.7	2.80
4	4-2H-1	5251.50	2000	27.3	22.6	21.8	21.6	2.73
4	4-3H	5252.35	2000	20.1	16.3		19.7	2.79
4	4-4H-1	5253.50	2000	0.023	0.010	9.0	8.9	2.67
4	4-5H	5254.50	2000	0.131	0.079	16.1	15.9	3.08
4	4-6H	5255.20	2000	0.022	0.0095	8.2	8.1	2.67
4	4-7H	5256.55	2000	0.019	0.0081	15.6	15.4	3.13
4	4-8H (pf)	5257.50	2000	0.179	0.113	8.4	8.2	2.90
4	4-9H	5258.50	2000	0.0079	0.0026	4.5	4.3	2.72
4	4-10H	5259.55	2000	0.062	0.033	5.5	5.3	2.80
4	4-11H (pf)	5260.50	2000	0.371	0.258	4.5	4.3	2.75
4	4-12H	5261.50	2000	0.02	0.0085	8.1	7.9	2.66
4	4-13H	5262.50	2000	9.52	7.42	15.0	14.8	2.65

11-29-21

SUMMARY OF CONVENTIONAL CORE ANALYSES RESULTS

Convection Dried at 140°F

Strategic Biofuels LLC
Louisiana Green Fuels Well 001

Caldwell Parish, Louisiana
File: HH-108056

Core Number	Sample Number	Sample Depth, feet	Net Confining Stress, psi	Permeability, millidarcys		Porosity, percent		Grain Density, gm/cc
				to Air	Klinkenberg	Ambient	NCS	
4	4-14H	5263.50	2000	781.	739.		22.6	2.65
4	4-15H	5264.50	2000	1080.	1020.	22.7	22.5	2.67
4	4-16H	5265.50	2000	0.017	0.0071	6.7	6.5	2.87
4	4-17H	5266.50	2000	0.017	0.0069	4.5	4.4	2.91
4	4-18H	5267.55	2000	0.195	0.125	12.3	12.1	2.67
4	4-19H	5268.50	2000	0.0080	0.0027	5.9	5.8	2.88
4	4-20H	5269.65	2000	0.010	0.0036	7.0	6.8	2.77
4	4-21H	5270.70	2000	0.043	0.021	7.2	7.1	2.70
4	4-22H	5271.35	2000	0.029	0.013	6.2	6.0	2.74
4	4-23H	5272.20	2000	0.044	0.022	6.9	6.7	2.88
4	4-24H	5273.80	2000	0.026	0.012	8.2	8.1	2.67
4	4-25H (pf)	5274.50	2000	0.229	0.150	6.2	6.0	2.76
4	4-26H	5275.65	2000	+		5.9		2.72
4	4-27H	5276.45	2000	+		7.4		2.73
4	4-28H	5277.70	2000	0.129	0.078	9.3	9.1	2.73
4	4-29H	5278.60	2000	+		6.3		2.75
4	4-30H	5279.65	2000	0.027	0.012	7.1	7.0	2.70
			Average values:	54.8	50.5	11.8	13.5	2.73

+ Indicates the sample is fractured and unsuitable for this type of analysis

STRATUM RESERVOIR

SUMMARY OF ROTARY CORE ANALYSES RESULTS

Convection Dried at 140°F

Strategic Biofuels LLC
Louisiana Green Fuels Well 001

Core Number	Sample Number	Sample Depth, feet	Net Confining Stress, psi	Permeability, millidarcys		Porosity, percent		Grain Density, gm/cc
				to Air	Klinkenberg	Ambient	NCS	
25	1-1R	4154.0	1500	125.	112.		28.8	2.67
24	1-2R	4160.0	1500	86.7	76.3		26.8	2.65
23	1-3R	4177.0	1500	66.9	58.4		27.9	2.66
22	1-4R	4915.0	1900	673.	635.		24.3	2.65
21	1-5R	5056.0	1900	1.95	1.52	17.0	16.8	2.68
20	1-6R	5070.0	1900	694.	655.0		27.0	2.65
19	1-7R	5078.0	1900	633.	596.		25.7	2.66
18	1-8R	5143.0	1900	129.	115.		24.6	2.68
17	1-9R	5158.0	1900	0.0078	0.0026	5.7	5.5	2.67
16	1-10R	5175.0	2000	6.68	5.32	14.2	14.0	2.76
15	1-11R	5183.0	2000	232.	213.		24.5	2.65
14	1-12R	5190.0	2000	502.	470.		21.8	2.67
13	1-13R	5252.0	2000	71.2	62.4		22.2	2.66
12	1-14R	5299.0	2000	294.	271.		21.9	2.66
11	1-15R	5314.0	2000	425.	396.		26.6	2.66
10	1-16R	5316.0	2000	718.	678.		25.8	2.75
9	1-17R	5336.0	2000	505.	473.		25.5	2.74
8	1-18R	5341.0	2000	403.	376.		24.3	2.67
7	1-19R	5421.0	2000	16.2	13.4		22.3	2.74
6	1-20R	5449.0	2000	604.	568.		22.8	2.64
5	1-21R	5453.0	2000	627.	590.	23.9	23.7	2.66
4	1-22R	5468.0	2000	3.18	2.40	14.6	14.4	2.67
3	1-23R	5482.0	2000	0.398	0.279	18.6	18.4	2.66
2	1-24R	5599.0	2000	1.25	0.971	18.4	18.1	2.67
1	1-25R	5608.0	2000	2.92	2.31	19.8	19.5	2.70
			Average values:	273.	255.	16.5	22.1	2.68

STRATUM RESERVOIR

Crushed Rock Analysis
Summary of Routine Crushed Core Analyses Results
As-Received and Vacuum Dried at 212°F

Strategic Biofuels LLC
Louisiana Green Fuels Well 001
Caldwell Parish, LA
Riverton Field

HH-108056
11/4/2021

Sample ID	Top Depth, feet	Bottom Depth, feet	A-R Bulk Density, gm/cc	A-R Grain Density, gms/cc	A-R Gas Saturation, % of BV	*A-R Press Decay Permeability, md*	Dry Bulk Density, gm/cc	Dry Grain Density, gm/cc	Dry Helium Porosity, % of BV
1-10 CRA	3609.20	3609.45	2.33	2.35	0.9	*4.60E-05*	2.10	2.73	23.2
1-20 CRA	3619.00	3619.25	2.30	2.36	2.3	*9.77E-05*	2.07	2.74	24.3
1-28 CRA	3627.50	3627.75	2.34	2.36	0.6	*2.62E-05*	2.11	2.73	22.9
2-4 CRA	4693.00	4693.25	2.51	2.54	0.9	*4.03E-05*	2.39	2.74	12.8
5-1 CRA	5900.45	5900.80	2.61	2.62	0.6	*3.90E-05*	2.51	2.77	9.4
5-11 CRA	5910.05	5910.35	2.57	2.58	0.5	*2.40E-05*	2.46	2.75	10.5
5-21 CRA	5920.55	5920.85	2.60	2.60	0.1	*4.48E-06*	2.50	2.75	9.0
5-29 CRA	5928.55	5928.85	2.60	2.60	0.3	*1.36E-05*	2.50	2.75	9.2
Average values:			2.48	2.50	0.8	*3.64E-05*	2.33	2.75	15.2

As-received bulk volumes and bulk densities were determined on intact bulk sample material.
The bulk material was crushed and all other analysis reported herein were conducted on the crushed material.

Mud/Fluid type: WBM

Permeabilities calculated using CSM mathematics.

SUMMARY OF MERCURY INJECTION TEST RESULTS

Strategic Biofuels LLC
Louisiana Green Fuels Well 001

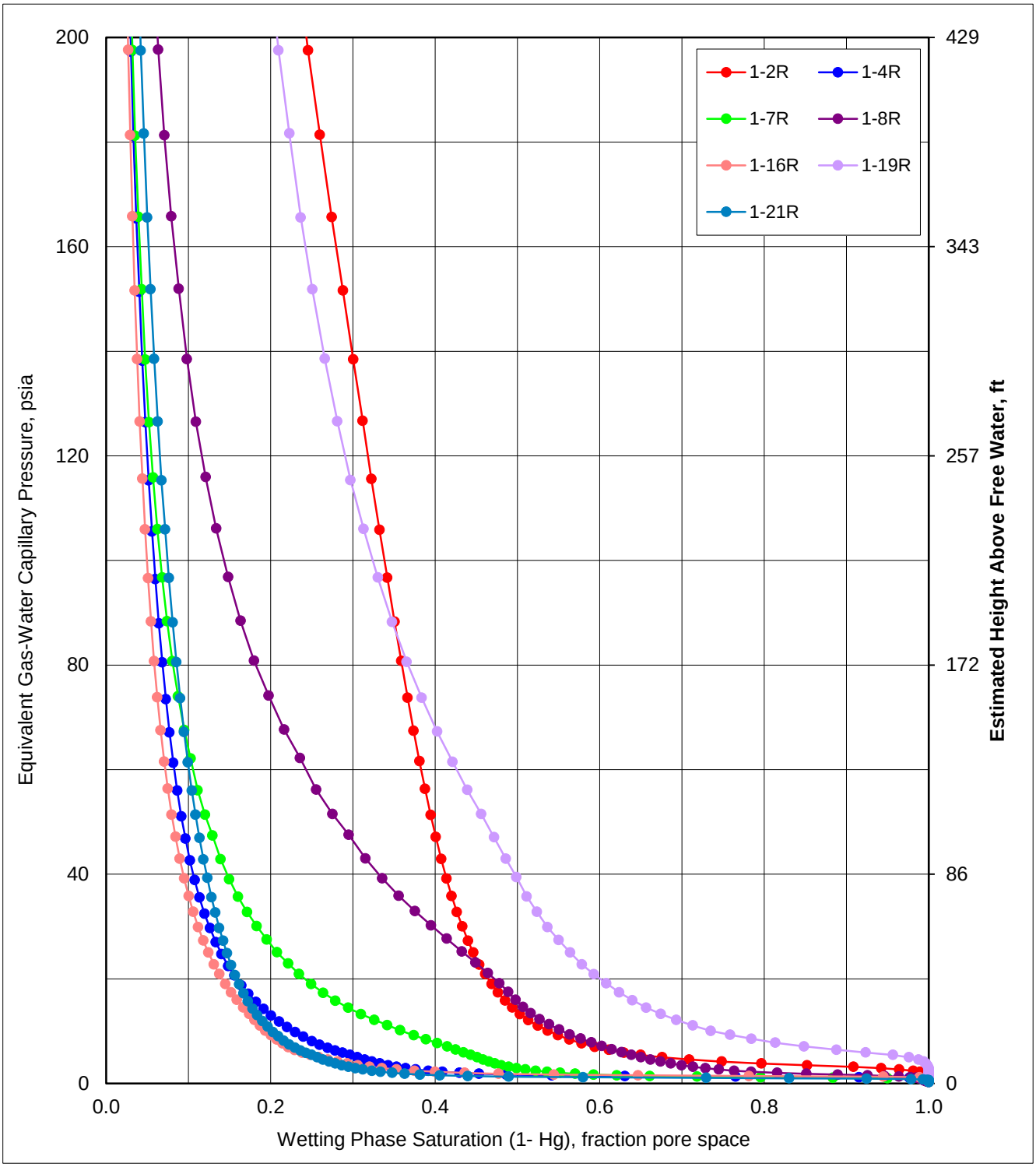
Caldwell Parish, Louisiana
HH-108056

Sample Number	Sample Depth, feet	Mercury Injection			
		Permeability to Air, millidarcys	Porosity, fraction	Grain Density, grams/cc	Fluid Saturation at 200 psi Equivalent Gas-Water Capillary Pressure, fraction pore space
1-2R	4160.00	61.5	0.272	2.64	0.243

EQUIVALENT GAS - WATER CAPILLARY PRESSURE

Strategic Biofuels LLC
Louisiana Green Fuels Well 001

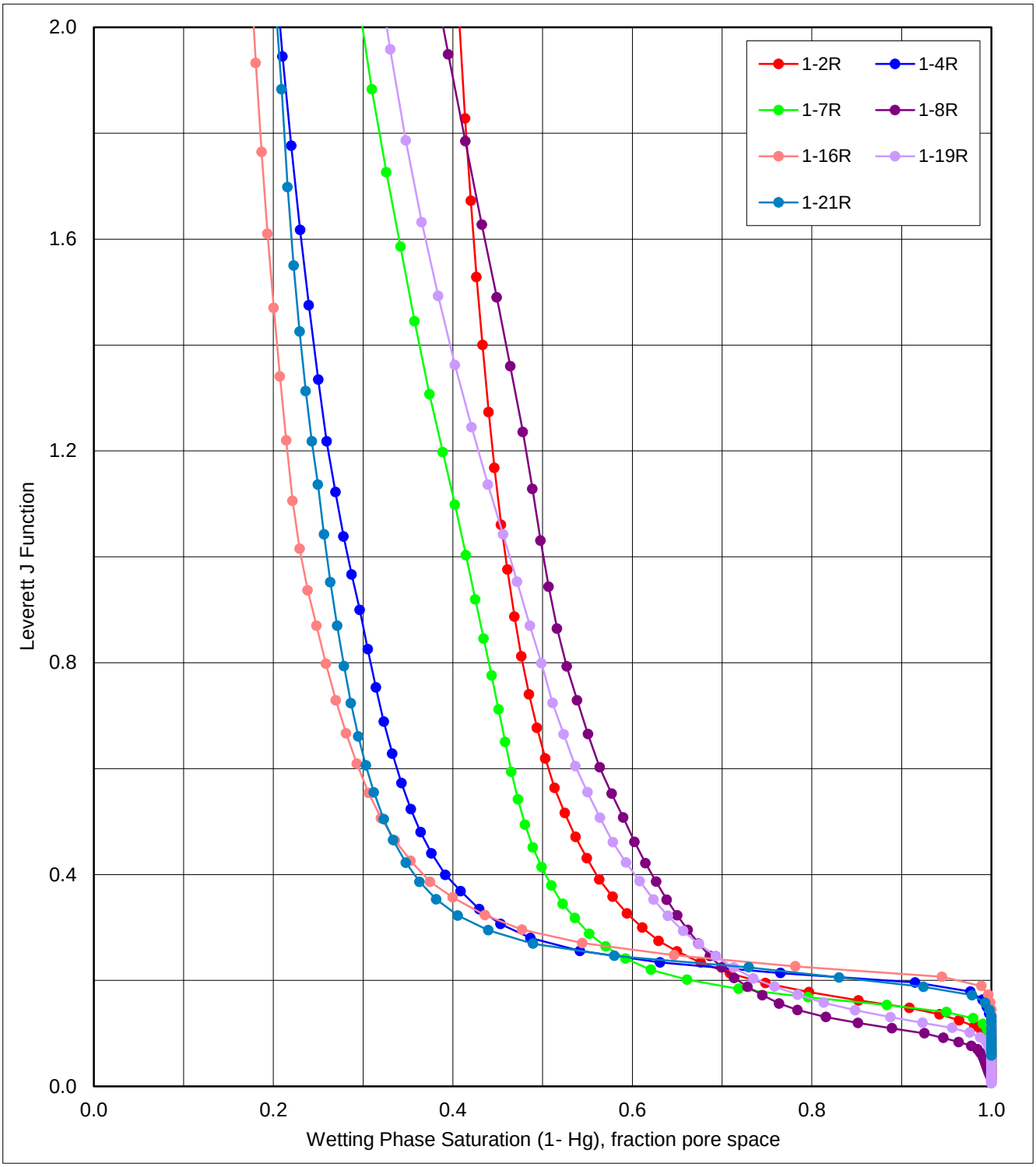
Composite of All Samples
Caldwell Parish, Louisiana
HH-108056



LEVERETT J FUNCTION

Strategic Biofuels LLC
Louisiana Green Fuels Well 001

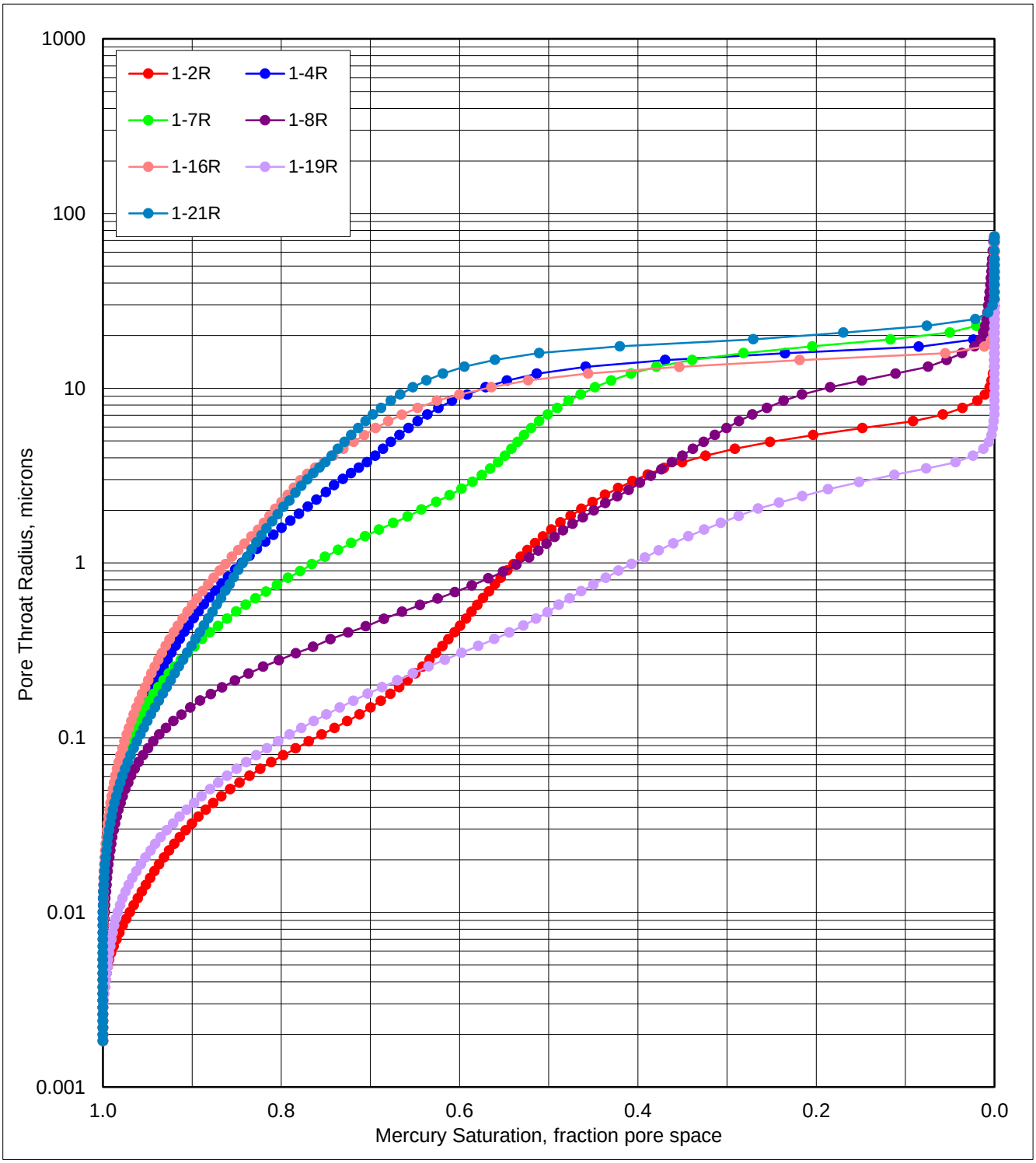
Composite of All Samples
Caldwell Parish, Louisiana
HH-108056



PORE THROAT RADII

Strategic Biofuels LLC
Louisiana Green Fuels Well 001

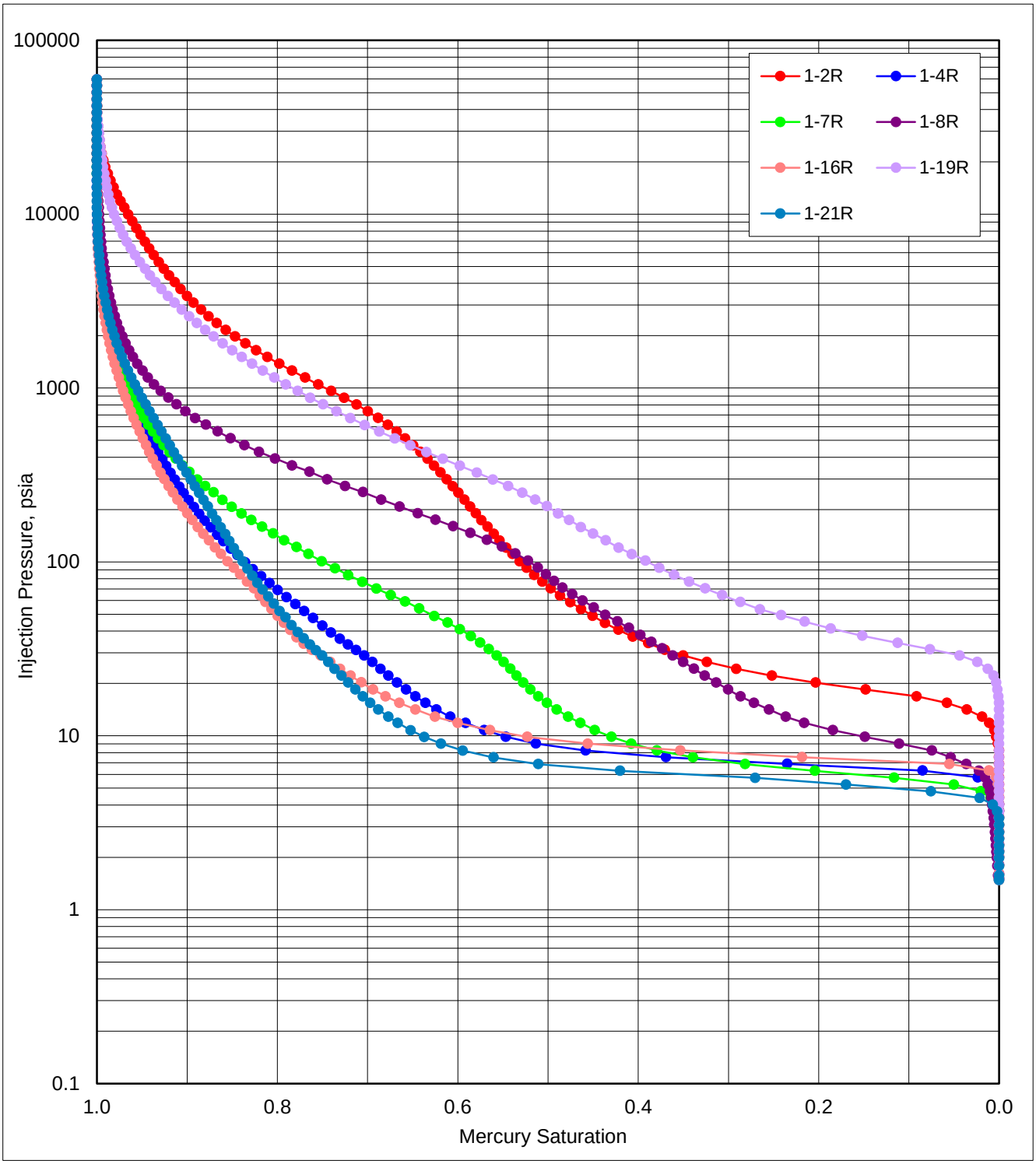
Composite of All Samples
Caldwell Parish, Louisiana
HH-108056



MERCURY INJECTION CAPILLARY PRESSURE

Strategic Biofuels LLC
Louisiana Green Fuels Well 001

Composite of All Samples
Caldwell Parish, Louisiana
HH-108056



MERCURY INJECTION CAPILLARY PRESSURE

Strategic Biofuels LLC
Louisiana Green Fuels Well 001

Composite of All Samples
Caldwell Parish, Louisiana
HH-108056

Injection Pressure, psia	Mercury Saturation, fraction	1.0-Mercury Saturation, fraction	Pore Radius, microns	J Function	Other Laboratory Systems			Estimated Height Above Free Water, ft	
					Gas-Water, psia	Gas-Oil, psia	Oil-Water, psia	G-W	O-W
1.52	0.000	1.000	72.0	0.013	0.29	0.10	0.12	0.61	1.02
1.61	0.000	1.000	68.0	0.014	0.30	0.10	0.13	0.65	1.08
1.81	0.000	1.000	60.3	0.016	0.34	0.12	0.15	0.73	1.21
2.01	0.000	1.000	54.3	0.018	0.38	0.13	0.16	0.81	1.35
2.17	0.000	1.000	50.2	0.019	0.41	0.14	0.18	0.88	1.46
2.37	0.000	1.000	46.1	0.021	0.45	0.15	0.19	0.96	1.59
2.57	0.000	1.000	42.4	0.023	0.48	0.17	0.21	1.04	1.72
2.81	0.000	1.000	38.9	0.025	0.53	0.18	0.23	1.13	1.88
3.08	0.000	1.000	35.4	0.027	0.58	0.20	0.25	1.25	2.07
3.40	0.000	1.000	32.2	0.030	0.64	0.22	0.28	1.37	2.28
3.70	0.000	1.000	29.5	0.032	0.70	0.24	0.30	1.49	2.48
4.04	0.000	1.000	27.0	0.036	0.76	0.26	0.33	1.63	2.71

STRATUM RESERVOIR

EasyCore
The EasyCopy Company

Top 3600 ft	Bottom 5929 ft
Country United States	Well Name & No. HH-108056 Louisiana Green Fuels Well 001
Location Caldwell Parish, Louisiana	Logged by Brad Walls
Date Sat Sep 4 2021	

Lithologies
Conglomerate, Limestone, Mudstone, Sandstone, Siltstone

Admixture
Argillaceous, Calcareous

Support
Clast Supported

Contacts
Gradational, Irregular, Sharp, Straight, Stylolitic

Abbreviations
A	Apatite	ArSa	Argillaceous Sandstone	GL	Glauconite
M	Mudstone	Ph	Phosphate	Py	Pyrite
Q	Quartz	Sa	Sandstone	SM	Sandy Mudstone

Burrows
Asterosoma, Bioturbation, Chondrites, Conichnus, Cylindrichnus, Planolites, Rosselia, Siphonichnus, Skolithos, Teichichnus, Thalassinoides, Zoophycos

Constituents
Anhydrite Nodule, Fossil Mudstone Clast, Lithoclasts, Organic Material, Pyrite Nodule

Fossils
Bivalve, Inoceramid, Ooids, Organic Material, Ostracode, Planktonic Foraminifera, Rudists, Shelter Allochem Pore, Undifferentiated Allochem

Fracture Symbols
Break, Frac, Slickenside, Twist, Unmineralized bedding plane parting

Sedimentary Structures
Cross Laminations, Diagenetic Mottlling, Flame Structure, Fluid Escape, Fracture, Microfault, Nodular Bedding, Planar Laminations, Ripples, Soft Sediment Deformation, Wavy Laminations

Depositional Environment
BDFD	Bedload Dominated Fluvial Deposits	DM	Deep Marine	IDP	Interfluvial Deposits Including Paleosols
OM	Offshore Marine	S	Storm	TDC	Tidal Channel
TDF	Tidal Flat	TF/TC	Tidal Flat up to Tidal Channel		

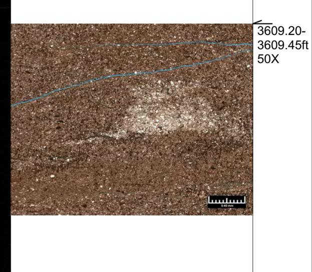
Core Depth (Feet) | Gamma (API) 0–150 | GN PK WK Mudstone Evap / Medium Fine VF Silt Clay | Lithology | WL Photos | UV Photos | Thin Section | TS Depth | Notes | Depositional Environment | Laminations | Lenses/Lenticular Ripple Beds | Ripple Bed | Cross Laminations | Soft Sediment Deformation | Scoured/Erosional | Breaks | UBPB | Twist | Frac | Slickenside

Note: Lithology is based on visual estimates of slabbed core and correlated with spectral core gamma log. Bioturbation Index ranges from 0-6, with '0' indicating no bioturbation and '6' indicating complete sediment re-working based on the George Pemberton adaptation of the original index from Taylor and Goldring (1993).

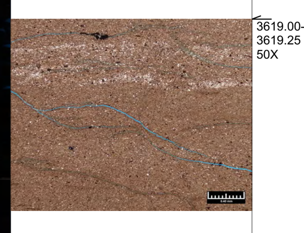
Top Core No. 1 (3600.00 FEET)

3600.00 ft. – 3628.75 ft.: Based on X-ray diffraction, this interval contains very high amounts of swelling clays which make describing core difficult. Addition of water for clearer images of the core would only result in increased volumes of swelling clays so only a rough description was possible. Interval consists of silty mudstone. Several thin, very fine-grained sandstone laminations are sparse. A rare, possible calcareous nodule occurs from 3614.00 – 3614 ft. The sandstone laminations usually contain sparse bioturbation including possible *Planolites* or *Skolithos* burrow traces. The sandstone laminations are also planar to wavy laminated. The mudstone is massive with vague faint laminations. Rare possible phosphatic nodules or clasts are present. A possible flame structure occurs at 3622.10 ft. Bottom of interval is the end of Core No. 1

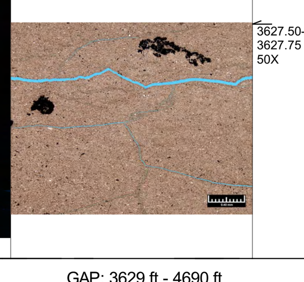
Depositional Environment: Deep Marine



3609.20-3609.45ft 50X



3619.45-3619.70ft 50X



3627.50-3627.75 50X

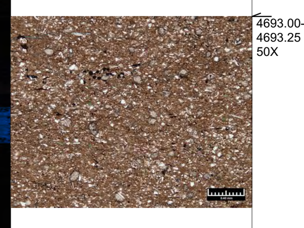
Bottom Core No. 1 (3628.75 FEET)

Interval Not Cored From 3628.75 – 4690.00 ft.

GAP: 3629 ft - 4690 ft

Top Core No. 2 (4690.00 ft.)

4690.00 – 4699.34 ft.: Interval consists predominantly of silty/sandy calcareous mudstone. Several thin very fine-grained sandstone laminations and beds are present throughout. The sandstones are generally wavy laminated with some having ripple laminations and/or soft sediment deformation. Sparse possible burrow traces and bioturbation are present within the sandstones. A microfault is present within the sandstone lamination at 4696.25 ft. The mudstones are massive to faintly laminated with some nodular beds and rare soft sediment deformation Fossil material present include possible *Inoceramid* fragments (4691.00 – 4693.15ft.), rare planktonic foraminifera (4697.30ft.), additional unidentified bivalves, and undifferentiated bioclastic debris. Rare glauconite is present throughout the sandstones and mudstones. Burrow traces present in this sample include possible *Planolites, Skolithos, Teichichnus,* and *Rosselia.* Bottom of interval is the end of Core No. 2.



4693.00-4693.25 50X

Depositional Environment: Offshore Marine

Bottom Core No. 2 (4699.34 FEET)

Interval Not Cored From 4699.34 – 4911.00 ft.

GAP: 4700 ft - 4911 ft

Top Core No. 3 (4911.00 ft.)

4911.00 – 4914.50 ft.: Interval consists of a general coarsening upwards trend from a silty/sandy mudstone at the base of the interval to a calcareous, argillaceous sandstone section at the top. The sandstone ranges from very fine- to fine-grained. A fine- to very-fine grained sandstone layer is present within the mudstone at 4914.20 – 4914.30 ft. The sandstones are generally wavy laminated with some possible ripple laminations present. The mudstone contains more planar laminations. Glauconite is minor throughout the entire interval. Rare, possible phosphatic nodules are present at 4913.40 ft. and 4913.85 ft. Burrow traces include possible *Planolites, Skolithos,* and *Teichichnus.* A possible fluid escape structure is present at 4912.40 ft. Irregular lower contact.

Depositional Environment: Tidal Flat up to Tidal Channel

4914.50 – 4918.85 ft.: Interval consists of very fine to fine-grained calcareous sandstone. The interval from 4916.50 – 4917.40 ft. contains common fossils. Interval from 4914.50 – 4917.40 is massive to faintly laminated. 4917.40 – 4918.85 ft. contains somewhat well-defined laminations based on the presence of organic material. Glauconite is minor throughout. Allochems include undifferentiated bioclastic debris and bivalve fragments. Sharp lower contact.

Depositional Environment: Tidal Channel

4918.85 – 4922.40 ft.: Interval consists mostly of silty/sandy mudstones. Several fine- very fine-grained sandstone laminations and beds are present. Wavy laminations present throughout. Rare glauconite is only identified from the base of the unit up to 4919.75 ft. Burrow traces include possible *Teichichnus, Siphonichnus, Planolites, Rosselia,* and *Thalassinoides.* Silty mudstone fragments are minor. A rare mudstone clast is present as a core within a bivalve fragment at 4921.10 ft. Gradational lower contact.

Depositional Environment: Tidal Flat

4922.40 – 4937.56 ft.: Interval consists of argillaceous to calcareous sandstone. The sandstone ranges from fine- to very fine-grained. The interval contains wavy laminations at the base and becomes massive towards the top. Allochems are present from 4926.80 - 4928.40 ft. and include bivalves, bioclastic debris, and possible rudist bivalves. Other constituents include glauconite fragments, organic material, and argillaceous sandstone lithoclasts. Burrow traces are present throughout and include possible *Teichichnus, Siphonichnus, Planolites, Skolithos, Rosselia,* and *Thalassinoides.* Shelter pores within allochems are rare. Bottom of interval is the end of Core No. 3.

Depositional Environment: Tidal Channel

Bottom Core No. 3 (4937.56 FEET)

Interval Not Cored From 4937.56 – 5250.00 ft.

GAP: 4937.56 ft - 5250 ft

Top Core No. 4 (5250.00 ft.)

5250.00 – 5256.50 ft.: Interval consists of a general coarsening upwards trend from a silty/sandy mudstone at the base of the interval to an argillaceous sandstone section at the top. Most of this interval is a fine to very-fine sandstone with a rare silty/sandy mudstone from 5256.50 to 5256.00 ft. The sandstone contains wavy laminations. The mudstone has wavy laminations with some nodular beds. Burrow traces include possible *Planolites, Thalassinoides, Conichnus,* and *Cylindrichnus*. Some of the detrital grains have faint iron oxidation. Sharp lower contact.

Depositional Environment: Tidal Flat up to Tidal Channel

5256.50 – 5260.80 ft.: Interval consists of a general coarsening upwards trend from a silty/sandy mudstone at the base of the interval to an argillaceous sandstone section at the top. Interval is mostly massive with rare wavy laminations and ripple laminations. Mudstone clasts are moderately common. A possible anhydrite clast is present at 5257.50 ft. Burrow traces include possible *Teichichnus, Planolites, Rosselia,* and *Thalassinoides.* Gradational lower contact.

Depositional Environment: Tidal Channel

Depositional Environment: Tidal Flat

5260.80 – 5272.40 ft.: Interval consists almost entirely of argillaceous sandstone. A silty/sandy mudstone is present 5261.80 – 5261.90 ft. Interval contains wavy laminations throughout with less common ripple laminations, planar laminations, and soft sediment deformation. Sandy mudstone clasts are much more common at the base of the interval and are rare at the top. A quartz-filled microfracture is present within one mudstone clast. Argillaceous sandstone and sandstone clasts are rare. Some of the detrital grains have faint iron oxidation. Burrow traces include possible *Teichichnus, Planolites, Skolithos,* and *Rosselia.* Sharp lower contact.

Depositional Environment: Tidal Channel

5272.40 – 5279.99 ft.: Interval consists primarily of argillaceous sandstone with numerous silty/sandy mudstone intervals. The sandstone ranges from fine- to very fine-grained. A conglomerate occurs from the top of the interval to 5273.00 ft. Clasts within the conglomerate include sandstone and mudstone. Wavy laminations are present throughout most of the interval, except for the conglomerate, which is massive. Additional sedimentary structures include flame structures, soft-sediment deformation, microfaults, cross laminations, and ripple laminations. Burrow traces include possible *Teichichnus, Cylindrichnus, Skolithos,* and *Planolites.* Bottom of interval is the end of Core No. 4.

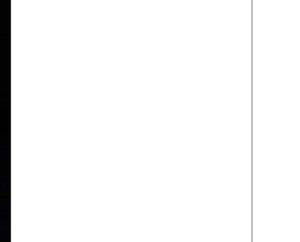
Depositional Environment: Storm; Tidal Flat

Bottom Core No. 4 (5279.99 FEET)

Interval Not Cored From 5279.99 – 5900.00 ft.

GAP: 5280 ft - 5900 ft

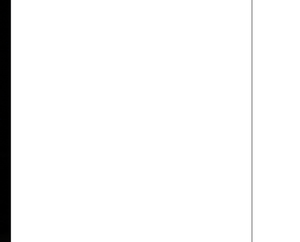
Top Core No. 5 (5900.00 ft.)



5900.45-5900.80 50X

5900.00 – 5909.80 ft.: Interval consists primarily of argillaceous, calcareous sandstone. A silty/sandy mudstone interval is present from 5900.50 ft. to the top of the interval. Ripples and wavy laminations are the main sedimentary structures. Soft-sediment deformation and microfaults are rare. Burrow traces include possible *Zoophycos, Teichichnus, Cylindrichnus, Conichnus, Planolites, Skolithos, Rosselia,* and *Thalassinoides.* Bioclastic debris is rare and occurs near the base of the interval. A possible fluid escape structure is present within the mudstone at 5900.20ft. Sharp lower contact.

Depositional Environment: Bedload Dominated Fluvial Deposits

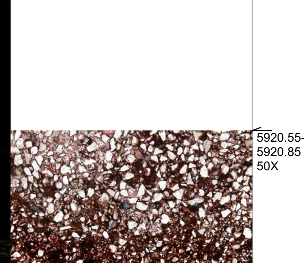


5910.05-5910.35 50X

5909.80 – 5919.80 ft.: Interval consists predominantly of calcareous, silty/sandy mudstone. Several very fine- to fine-grained sandstone beds and laminations are present. The bedding style tends to be more planar within the mudstones and wavy to rippled in the sandstones. Herringbone cross bedding is present at 5909.90 ft. A possible fluid escape structure is present at 5916.70 ft. Bioclastic debris is minor, but more common within the mudstones than the sandstones. A rare, possible bivalve is identified at 5910.90 ft. Burrow types include possible *Cylindrichnus, Chondrites, Teichichnus, Skolithos, Planolites, Asterosoma, Thalassinoides, and Rosselia*. Glauconite fragments, sandstone lithoclasts, and mudstone lithoclasts are rare. Sharp lower contact.

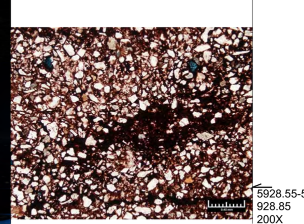
Depositional Environment: Interfluvial Deposits Including Paleosols

5919.80 – 5929.00 ft.: Interval consists of fine- to very-fine sandstone interbedded with silty/sandy mudstone. Some of the sandstones are slightly calcareous. The sandstones and mudstones are mostly massive with minor wavy laminations, soft-sediment deformation, and rare ripples. Mudstone and sandstone lithoclasts are present throughout but are more common from 5924.00 ft. up. Allochems include bioclastic debris, possible ostracodes, and bivalves. Glauconite is rare. Two apatite clasts are present at the base of the interval. Possible iron-rich ooids are present at 5920.80 ft. Burrow traces include possible *Skolithos,* root trace, *Cylindrichnus, Chondrites, Siphonichnus, Thalassinoides, Conichnus,* and *Planolites.* Bottom of interval is the end of Core No. 5.



5920.55-5920.85 50X

Depositional Environment: Bedload Dominated Fluvial Deposits



5928.55-5928.85 200X

Bottom Core No. 5 (5929.00 FEET)

End of Cored Intervals