Table 1
Slug Test Results

Jeanerette Lumber Shingle Co., LLC v. ConocoPhillips Company, et al.
Bayou Pigeon Oil Gas Field
Iberia Parish, Louisiana

				Hvorslev		Estimated Yield	
Well ID	b (ft)	hc (ft)	Slug ID	K (ft/day)	K (cm/sec)	Q (gpm)	Q (GPD)
30-Foot Zone							
JLS-11	5	24.27	Slug 1	0.114	4.02E-05		
			Slug 2	0.119	4.20E-05		
			Average	0.1165	4.11E-05	**0.05**	**77**
MW-1	5	25.75	Slug 1 In	0.6251	2.21E-04		
			Slug 1 Out	0.7867	2.78E-04		
			Slug 2 In	0.6789	2.40E-04		
			Slug 2 Out	0.7536	2.66E-04		
			Slug 3 In	0.6608	2.33E-04		
			Slug 3 Out	0.8083	2.85E-04		
			Average	0.7189	2.54E-04	**0.31**	**441**
MW-2	5	25.75	Slug 1 In	0.1862	6.57E-05		
			Slug 1 Out	0.1799	6.35E-05		
			Average	0.18305	6.46E-05	**0.09**	**124**
MW-3	5	26.03	Slug 1 In	0.6864	2.42E-04		
			Slug 1 Out	0.9034	3.19E-04		
			Slug 2 In	0.6598	2.33E-04		
			Slug 2 Out	0.8767	3.09E-04		
			Slug 3 In	0.6441	2.27E-04		
			Slug 3 Out	0.8805	3.11E-04		
			Average	0.7752	2.73E-04	**0.33**	**478**
		Geometric Mean		**0.3302**	**1.16E-04**	**0.15**	**211**

Notes:

Well yield equation for confined aquifer from RECAP Appendix F:

$$Q = \frac{60 H_c K b}{9.3 + \log(Kb)}$$

K = hydraulic conductivity (cm/sec)

b = saturated thickness (feet)

h_c = confining head (feet)

gpm = Gallons per Minute

GPD = Gallons per Day

Table 2
Survey Data and Groundwater Elevations

Jeanerette Lumber Shingle Co., LLC v. ConocoPhillips Company, et al.
Bayou Pigeon Oil Gas Field
Iberia Parish, Louisiana

	Screened Interval	Screen Length	Top of Casing Elevation	Total Depth	Mid Screen	Mid Screen Elevation	2/9/2021				
							DTW	TDS	Density	Water Elevation	EFWH
Well ID	ft bgs	ft	ft	ft btoc	ft bgs	ft	ft btoc	mg/L	kg/m^3	ft	ft
MW-1	23-28	5	7.5	28.0	25.5	-18.00	4.73	1,190	999.115	2.77	2.79
MW-2	23-28	5	8.4	28.0	25.5	-17.10	4.41	285	998.424	3.99	3.99
MW-3	23-28	5	7.2	28.0	25.5	-18.30	4.23	831	998.841	2.97	2.98

Notes:
ICON Wells JLS-10, JLS-11, JLS-14, and JLS-17 were not surveyed and are not included
Horizontal positions referenced to NAD83 datum
Vertical positions referenced to NAVD88 datum
Depth to water (DTW) measurements are shown as depth below top of casing (btoc).
Density is calculated using Millaro & Poisson (1981).
ft bgs = feet below ground surface
EFWH = Equivalent fresh water head (corrected for density based on TDS), based on Post, et al., 2007.

Table 3
Oil Gas Well History
Jeanerette Lumber v. ConocoPhillips Company, et al.
Bayou Pigeon Oil Gas Field
Iberia Parish, Louisiana

Well Serial	Well Name	Well Num	Total Depth (ft)	Spud Date	Status Date	Well Status	Operator History	Notes
70817	Jeanerette	001	10010/8194	6/30/1958	2/21/1978	30 - Plugged and Abandoned	6/9/1958: Pioneer Oil & Gas Company, Inc. 7/15/1958: F.A. Callery, Inc. 1/4/1963: K & H Operating Company 10/01/1969: Kewanee Oil Company	7/19/1958 - Work Permit to perforate - Name listed as Jeanerette LBR & SH No. 1 10/31/1973 - Work Permit to set plug - Name listed as Jeanerette No. 1 2/19/1976 - Work Permit to set plug and perforate

Table 4
Soil and Sediment Analytical Data
Jeanerette Lumber Shingle Co., LLC v. ConocoPhillips Company, et al.
Bayou Pigeon Oil Gas Field
Iberia Parish, Louisiana

				Sample ID	Sample 1		Sample 2			JLS-1						JLS-1R					
				Location Name	Other		Other			Area 2						Area 2					
				Location Description	Soil		Soil			Canal Sediment						Canal Sediment					
				Sample Date	11/8/2019		11/8/2019			5/26/2020						1/13/2021					
				Interval (ft)	0-2	2-4	0-2	2-4	4-6	0-2		2-4		4-5		0-2		2-4		4-6	
Parameters	**Units**	**RECAP SOIL_ Ssni**	**RECAP SOIL_ SSGW**	**29-B Submerged Wet.**	ICON	ICON	ICON	ICON	ICON	HET	ICON	HET	ICON	HET	ICON	HET	ICON	HET	ICON	HET	ICON
Salts																					
% Moisture Primary[1]	%	N/S	N/S	N/S	**43.3**	**45.3**	**60**	**62.5**	**48.5**	**73.5**	**72.1**	**71.4**	**71.3**	**70.4**	**68**	**75.7**	**76.4**	**69.7**	**71.9**	**63.1**	**79.0**
% Moisture Secondary[2]	%	N/S	N/S	N/S	NA	NA	NA	NA	NA	**73.5**	NA	**71.1**	NA	**72.2**	NA	NA	NA	NA	NA	NA	NA
% Saturation	%	N/S	N/S	N/S	NA	NA	NA	NA	NA	**102**	NA	**111**	NA	**124**	NA	**88.6**	NA	**94.6**	NA	**168**	NA
Cation Exchange Capacity (CEC)	meq/100g	N/S	N/S	N/S	**65.1**	**66.8**	**57.3**	**58.1**	**23.2**	**52.6**	**61.9**	**50.4**	**61.9**	**60.4**	**63.9**	NA	NA	NA	NA	NA	NA
Electrical Conductivity	mmhos/cm	N/S	N/S	N/S	**2.76**	**6.92**	**17.2**	**38.1**	**48.9**	**46.5**	**45.9**	**84.4**	**62.1**	**84.5**	**76.2**	NA	NA	NA	NA	NA	NA
Exchangeable Sodium Percentage	%	N/S	N/S	N/S	**16.2**	**31.8**	**18.3**	**32.2**	**35.7**	**41.7**	**29.8**	**10.7**	**31.3**	**23.3**	**26**	NA	NA	NA	NA	NA	NA
Sodium Adsorption Ratio	Calc	N/S	N/S	N/S	**26.3**	**50.7**	**39.2**	**81.6**	**93.7**	**36.6**	**37.7**	**65.3**	**50.2**	**56.8**	**56.8**	NA	NA	NA	NA	NA	NA
Soluble Calcium	meq/L	N/S	N/S	N/S	**2.09**	**2.62**	**16.7**	**23.8**	**32.6**	**102**	**94**	**146**	**134**	**153**	**160**	**94.1**	NA	**145**	NA	**159**	NA
Soluble Magnesium	meq/L	N/S	N/S	N/S	**1.17**	**1.43**	**7.29**	**10.9**	**15.5**	**62.7**	**47.6**	**73.4**	**66**	**71.2**	**81.5**	**44.1**	NA	**70.3**	NA	**84**	NA
Soluble Sodium	meq/L	N/S	N/S	N/S	**33.5**	**72.2**	**136**	**340**	**460**	**332**	**318**	**684**	**502**	**601**	**624**	**225**	NA	**394**	NA	**553**	NA
SPLP Chloride	mg/L	N/S	5000	N/S	NA	NA	NA	NA	NA	NA	NA	**434**	NA	**539**	NA	NA	NA	NA	NA	NA	NA
SPLP Sodium	mg/L	N/S	1500	N/S	NA	NA	NA	NA	NA	NA	NA	**257**	NA	**332**	NA	NA	NA	NA	NA	NA	NA
29-B Leachate Chloride	mg/L	N/S	N/S	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	mg/Kg	N/S	N/S	N/S	NA	NA	NA	NA	NA	**4390**	NA	**7230**	NA	**10200**	NA	**3490**	NA	**5560**	NA	**10900**	NA
Chloride	meq/L	N/S	N/S	N/S	NA	NA	NA	NA	NA	**489**	NA	**777**	NA	**764**	NA	**396**	NA	**676**	NA	**888**	NA
Alkalinity (Sat. Paste)	meq/L	N/S	N/S	N/S	NA	NA	NA	NA	NA	**1.9**	NA	**1.6**	NA	**1.8**	NA	**1**	NA	**1.6**	NA	**0.5**	NA
Sulfate	meq/L	N/S	N/S	N/S	NA	NA	NA	NA	NA	<2.00	NA	<5.00	NA	<5.00	NA	<2.00	NA	<5.00	NA	<5.00	NA
Total Organic Carbon	mg/Kg-dry	N/S	N/S	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	N/S	N/S	6-9	NA	NA	NA	NA	NA	**7.25**	NA	**7.37**	NA	**7.12**	NA	**7**	NA	**7.64**	NA	**6.75**	NA
SPLP Metals																					
SPLP Arsenic	mg/L	N/S	0.2	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Barium	mg/L	N/S	40	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Cadmium	mg/L	N/S	0.1	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Zinc	mg/L	N/S	220	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals (Wet Weight)																					
Arsenic	mg/Kg	12	100	10	**5.9**	**3.49**	**3.93**	**4.2**	**2.29**	**2.09**	**2.69**	<2.00	**3.2**	<2.00	**2.63**	NA	NA	<2.00	**2.06**	NA	NA
Barium	mg/Kg	550	2000	N/S	**130**	**132**	**209**	**178**	**82**	**104**	**166**	**77.5**	**364**	**74.8**	**210**	**74.8**	**159**	**235**	**212**	**93.2**	**88**
True Total Barium	mg/Kg-dry	N/S	N/S	20,000	**481**	**1010**	**573**	**544**	**297**	**1020**	**643**	**1840**	**1890**	**855**	**801**	NA	NA	NA	NA	NA	NA
Cadmium	mg/Kg	3.9	20	10	<0.28	<0.268	**0.27**	**0.192**	<0.253	<0.200	**0.196**	<0.200	**0.199**	<0.200	**0.2**	NA	NA	NA	NA	NA	NA
Chromium	mg/Kg	12000	100	500	**11.6**	**10.2**	**9**	**8**	**4.3**	**9.35**	**6.2**	**9.34**	**4.7**	**8.81**	**4.6**	NA	NA	NA	NA	NA	NA
Lead	mg/Kg	400	100	500	**12.2**	**11.7**	**11.4**	**9.5**	**4**	**5.52**	**6.2**	**5.63**	**6.3**	**6.05**	**5.5**	NA	NA	NA	NA	NA	NA
Mercury	mg/Kg	2.3	4	10	<0.06	<0.059	**0.077**	**0.054**	**0.106**	**0.0185**	<0.0278	**0.0216**	<0.0283	**0.0169**	<0.0296	NA	NA	NA	NA	NA	NA
Selenium	mg/Kg	39	20	10	<2.24	<2.14	<1.48	<1.45	<2.02	<1.00	<1.09	<1.00	<1.09	<1.00	<1.25	NA	NA	NA	NA	NA	NA
Silver	mg/Kg	39	100	200	NA	NA	NA	NA	NA	<0.500	NA	<0.500	NA	<0.500	NA	NA	NA	NA	NA	NA	NA
Strontium	mg/Kg	N/S	N/S	N/S	**45.2**	**47.3**	**98**	**90**	**53**	NA	**27.1**	NA	**38**	NA	**40**	NA	NA	NA	NA	NA	NA
Zinc	mg/Kg	2300	2800	500	**43.2**	**38.6**	**46**	**43**	**21.4**	**28.1**	**30**	**26.3**	**27.8**	**22.3**	**24.1**	NA	NA	NA	NA	NA	NA
Hydrocarbons																					
Oil & Grease	dry wt %	65	N/S	1	NA	**0.12**	**1.07**	**1.92**	**6.67**	<0.188	NA	**0.251**	NA	<0.180	NA	NA	NA	NA	NA	NA	NA
TPH-DRO (>C10-C28)	mg/Kg	180	65	N/S	**375**	**411**	**875**	**3940**	**35500**	NA	**245**	NA	**176**	NA	**85.2**	NA	NA	NA	NA	NA	NA
TPH-ORO (>C28-C35)	mg/Kg	N/S	10000	N/S	**230**	**189**	**540**	**1800**	**8860**	NA	**211**	NA	**197**	NA	**129**	NA	NA	NA	NA	NA	NA
Aliphatic C6-C8	mg/Kg	1,200	10000	N/S	NA	NA	NA	NA	NA	<15.0	NA	<15.0	NA	<15.0	NA	NA	NA	NA	NA	NA	NA
Aliphatic >C8-C10	mg/Kg	120	5300	N/S	NA	NA	NA	NA	NA	<15.0	NA	<15.0	NA	<15.0	NA	NA	NA	NA	NA	NA	NA
Aliphatic >C10-C12	mg/Kg	230	10000	N/S	NA	NA	NA	NA	NA	<15.0	NA	<15.0	NA	<15.0	NA	NA	NA	NA	NA	NA	NA
Aliphatic >C12-C16	mg/Kg	370	10000	N/S	NA	NA	NA	NA	NA	<10.0	NA	**22.4**	NA	<10.0	NA	NA	NA	NA	NA	NA	NA
Aliphatic >C16-C35	mg/Kg	7,100	10000	N/S	NA	NA	NA	NA	NA	<10.0	NA	**74.2**	NA	<10.0	NA	NA	NA	NA	NA	NA	NA
Aromatic >C8-C10	mg/Kg	65	65	N/S	NA	NA	NA	NA	NA	<10.0	NA	<10.0	NA	<10.0	NA	NA	NA	NA	NA	NA	NA
Aromatic >C10-C12	mg/Kg	120	100	N/S	NA	NA	NA	NA	NA	<10.0	NA	<10.0	NA	<10.0	NA	NA	NA	NA	NA	NA	NA
Aromatic >C12-C16	mg/Kg	180	200	N/S	NA	NA	NA	NA	NA	<15.0	NA	<15.0	NA	<15.0	NA	NA	NA	NA	NA	NA	NA
Aromatic >C16-C21	mg/Kg	150	2100	N/S	NA	NA	NA	NA	NA	<15.0	NA	<15.0	NA	<15.0	NA	NA	NA	NA	NA	NA	NA
Aromatic >C21-C35	mg/Kg	180	10000	N/S	NA	NA	NA	NA	NA	<15.0	NA	**24.2**	NA	<15.0	NA	NA	NA	NA	NA	NA	NA
Total TPH (C6-C35)	mg/Kg	N/S	N/S	N/S	NA	NA	NA	NA	NA	<15.0	NA	**121**	NA	<15.0	NA	NA	NA	NA	NA	NA	NA
PAHs																					
2-Methylnaphthalene	mg/Kg	22	1.7	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/Kg	370	220	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	mg/Kg	350	88	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/Kg	2,200	120	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/Kg	0.62	330	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	mg/Kg	0.33	23	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	mg/Kg	0.62	220	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	mg/Kg	6.2	120	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/Kg	62	76	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	mg/Kg	0.33	540	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/Kg	220	1200	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	mg/Kg	280	230	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	mg/Kg	0.62	9.2	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/Kg	6.2	1.5	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/Kg	2,100	660	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/Kg	230	1100	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
[1] - Primary moisture value was reported by one lab and used for all wet/dry conversions. If multiple labs reported a moisture value the Primary moisture was used for the metals conversion
[2] - Secondary moisture value was reported by a separate lab.
ICON metals converted to wet weight.
Bolded values were detected in the sample
Highlight indicates exceedance of corresponding regulatory standard.
< - Not detected at or above the reporting limit shown
NA - Not analyzed, NS - No Standard

Table 4
Soil and Sediment Analytical Data
Jeanerette Lumber Shingle Co., LLC v. ConocoPhillips Company, et al.
Bayou Pigeon Oil Gas Field
Iberia Parish, Louisiana

Sample ID					JLS-2																			JLS-3			JLS-4					
Location Name					Area 2																			Area 2			Area 1					
Location Description					Canal Sediment																			Canal Sediment			Canal Sediment					
Sample Date					5/26/2020									2/4/2021	2/8/2021							2/25/2021					5/26/2020			5/26/2020					
Interval (ft)					0-2			2-4			4-6			44	0-2		2-4		4-6		6-8		0-5		5-11		0-2			0-2		2-4		4-6	
Parameters	**Units**	**RECAP SOIL_ Ssni**	**RECAP SOIL_ SSGW**	**29-B Submerged Wet.**	ERM	HET	ICON	ERM	HET	ICON	ERM	HET	ICON	ERM	ERM	ICON	ERM	ERM	ERM	ICON	ERM	ICON	ERM	ICON	ERM	HET	ICON	HET	ICON	HET	ICON	HET	ICON
Salts																																
% Moisture Primary[1]	%	N/S	N/S	N/S	NA	**75.5**	**73.7**	NA	**69.2**	**68.4**	NA	**69.4**	**67.2**	NA	**72.5**	**70.4**	**72.8**	**54.8**	**58.0**	**58.9**	**74.2**	**73.6**	**73.1**	**64.8**	NA	**55.9**	**53.9**	**72.6**	**72.2**	**67**	**66.1**	**56.7**	**61.1**
% Moisture Secondary[2]	%	N/S	N/S	N/S	NA	**74.5**	NA	NA	**69.4**	NA	NA	**68.8**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**52.8**	NA	**72.9**	NA	**60.6**	NA	**58.6**	NA
% Saturation	%	N/S	N/S	N/S	NA	**108**	NA	NA	**110**	NA	NA	**114**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**114**	NA	**92.5**	NA	**95.4**	NA	**94**	NA
Cation Exchange Capacity (CEC)	meq/100g	N/S	N/S	N/S	**74.6**	**58.3**	**69.7**	**70.2**	**57**	**69.3**	**68.9**	**49.6**	**71.2**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**76.9**	**60.4**	**78.3**	**45.2**	**68.9**	**42.4**	**62.2**	**35.7**	**55.5**
Electrical Conductivity	mmhos/cm	N/S	N/S	N/S	**15.2**	**12.4**	**14**	**32.8**	**36.5**	**35.4**	**44.6**	**49.2**	**46.1**	**2.27**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.81**	**0.726**	**1.78**	**2.03**	**2.26**	**2.06**	**3.42**	**1.56**	**2.28**
Exchangeable Sodium Percentage	%	N/S	N/S	N/S	**10.4**	**9.84**	**30.4**	**26.2**	**2.11**	**23.5**	**30.7**	**12.6**	**35.6**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.81**	**0.748**	**1.23**	**3.04**	**2.9**	**3.46**	**3.41**	**1.72**	**5.04**
Sodium Adsorption Ratio	Calc	N/S	N/S	N/S	**16.8**	**21.2**	**16.8**	**39.8**	**46.2**	**44.1**	**50.8**	**47.6**	**56**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**1.67**	**1.93**	**2.18**	**6.42**	**3.9**	**6.69**	**5.53**	**7.8**	**4.84**
Soluble Calcium	meq/L	N/S	N/S	N/S	**31.3**	**24.8**	**29**	**50**	**43.7**	**56.4**	**63.7**	**58.1**	**76.8**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**2.59**	**1.94**	**6.13**	**4.59**	**5.32**	**4.53**	**7.64**	**3.53**	**4.66**
Soluble Magnesium	meq/L	N/S	N/S	N/S	**13.6**	**13.8**	**12.3**	**21.1**	**24.7**	**23.3**	**27.3**	**31.6**	**32.4**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**1.63**	**1.2**	**3.25**	**1.83**	**2.62**	**1.91**	**3.8**	**1.53**	**2.56**
Soluble Sodium	meq/L	N/S	N/S	N/S	**79.5**	**93.2**	**76.2**	**237**	**270**	**278**	**342**	**319**	**414**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**2.42**	**2.42**	**4.72**	**11.5**	**7.77**	**12**	**13.2**	**12.4**	**9.2**
SPLP Chloride	mg/L	N/S	5000	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Sodium	mg/L	N/S	1500	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
29-B Leachate Chloride	mg/L	N/S	N/S	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	mg/Kg	N/S	N/S	N/S	NA	**1030**	NA	NA	**3450**	NA	NA	**5420**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**19**	NA	**112**	NA	**149**	NA	**141**	NA
Chloride	meq/L	N/S	N/S	N/S	NA	**115**	NA	NA	**309**	NA	NA	**421**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**4.39**	NA	**14.5**	NA	**15.1**	NA	**11.1**	NA
Alkalinity (Sat. Paste)	meq/L	N/S	N/S	N/S	NA	**2.9**	NA	NA	**3**	NA	NA	**2.2**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.9**	NA	**2**	NA	**2**	NA	**1.4**	NA
Sulfate	meq/L	N/S	N/S	N/S	NA	<1.00	NA	NA	<2.00	NA	NA	<2.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**1.15**	NA	**1.42**	NA	**1.34**	NA	**1.49**	NA
Total Organic Carbon	mg/Kg-dry	N/S	N/S	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**71600**	NA	**66000**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	N/S	N/S	6-9	NA	**7.21**	NA	NA	**7.39**	NA	NA	**7.12**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**6.68**	NA	**6.91**	NA	**6.86**	NA	**6.71**	NA
SPLP Metals																																
SPLP Arsenic	mg/L	N/S	0.2	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.0011**	NA	<0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Barium	mg/L	N/S	40	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.067**	NA	**0.04**	**0.058**	**0.099**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Cadmium	mg/L	N/S	0.1	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.001	NA	<0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Zinc	mg/L	N/S	220	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.02	NA	<0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals (Wet Weight)																																
Arsenic	mg/Kg	12	100	10	**4.02**	**2.67**	**3.9**	**7.74**	**4.19**	**6.1**	**5.41**	**4.31**	**6.4**	NA	NA	**4.2**	NA	NA	**10.5**	**4.4**	NA	**4.3**	**5.48**	**4**	**2.83**	**2.04**	**2**	**2.17**	**2.9**	**2.61**	**4**	**3.47**	**4.6**
Barium	mg/Kg	550	2000	N/S	**268**	**141**	**244**	**734**	**263**	**537**	**825**	**89.3**	**525**	NA	NA	**953**	NA	NA	**2040**	**797**	NA	**325**	**749**	**461**	**106**	**113**	**123**	**93.3**	**107**	**134**	**198**	**163**	**209**
True Total Barium	mg/Kg-dry	N/S	N/S	20,000	**1080**	**1140**	**1220**	**2570**	**2870**	**2800**	**3410**	**3030**	**2730**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**376**	<500	**354**	**524**	**444**	**721**	**671**	**600**	**588**
Cadmium	mg/Kg	3.9	20	10	<0.262	<0.200	**0.24**	<0.251	<0.200	**0.294**	<0.272	<0.200	**0.29**	NA	NA	**0.174**	NA	NA	NA	NA	NA	NA	NA	NA	<0.260	<0.200	**0.227**	<0.200	**0.205**	**0.216**	**0.26**	<0.200	**0.291**
Chromium	mg/Kg	12000	100	500	**6.08**	**8.51**	**5.3**	**6.66**	**10.1**	**6.1**	**6.32**	**10.1**	**6**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**8.74**	**13.9**	**8.9**	**9.51**	**5.9**	**11.6**	**6.9**	**13.3**	**6**
Lead	mg/Kg	400	100	500	**7.1**	**5.94**	**7**	**10.8**	**9.73**	**10.7**	**10.2**	**8.08**	**9.8**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**8.92**	**8.22**	**9.1**	**5.6**	**6**	**7.05**	**7.7**	**7.04**	**7.1**
Mercury	mg/Kg	2.3	4	10	<0.0930	**0.023**	<0.0261	<0.0965	**0.029**	**0.0303**	<0.0999	**0.0302**	**0.0312**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0979	**0.0377**	<0.0455	**0.0216**	<0.0266	**0.0266**	<0.0324	**0.0322**	<0.038
Selenium	mg/Kg	39	20	10	<2.09	<1.00	<0.96	<2.01	<1.00	<1.2	<2.18	<1.00	<1.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.08	<1.00	<1.74	<1.00	<1.1	<1.00	<1.3	<1.00	<1.53
Silver	mg/Kg	39	100	200	<0.262	<0.500	NA	<0.251	<0.500	NA	<0.272	<0.500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.260	<0.500	NA	<0.500	NA	<0.500	NA	<0.500	NA
Strontium	mg/Kg	N/S	N/S	N/S	NA	NA	<21.3	NA	NA	**47**	NA	NA	**49**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**22.8**	NA	**14.5**	NA	**18.8**	NA	**20**
Zinc	mg/Kg	2300	2800	500	**40.4**	**25**	**25.5**	**30.8**	**29.8**	**28.9**	**27.6**	**25.4**	**26.6**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**30.6**	**35.4**	**31.9**	**28.7**	**27.4**	**31.9**	**31.7**	**31**	**27.5**
Hydrocarbons																																
Oil & Grease	dry wt %	65	N/S	1	**0.26**	<0.196	NA	**0.43**	<0.163	NA	**0.93**	**0.32**	**0.64**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.05**	<0.106	NA	<0.184	NA	<0.127	NA	<0.121	NA
TPH-DRO (>C10-C28)	mg/Kg	180	65	N/S	NA	NA	**98.7**	NA	NA	**493**	NA	NA	**931**	NA	NA	NA	NA	NA	**1900**	NA	**83.7**	NA	**760**	NA	NA	NA	**80.9**	NA	**78.2**	NA	**104**	NA	**118**
TPH-ORO (>C28-C35)	mg/Kg	N/S	10000	N/S	NA	NA	**147**	NA	NA	**432**	NA	NA	**590**	NA	NA	NA	NA	NA	**622**	NA	**70.9**	NA	**307**	NA	NA	NA	**143**	NA	**142**	NA	**161**	NA	**142**
Aliphatic C6-C8	mg/Kg	1,200	10000	N/S	NA	<15.0	NA	NA	<15.0	NA	NA	<15.0	NA	NA	NA	NA	NA	**181**	<50.2	NA	NA	NA	<46.3	NA	NA	<15.0	NA	<15.0	NA	<15.0	NA	<15.0	NA
Aliphatic >C8-C10	mg/Kg	120	5300	N/S	NA	<15.0	NA	NA	<15.0	NA	NA	**22.7**	NA	NA	NA	NA	NA	**313**	**243**	NA	NA	NA	**69.3**	NA	NA	<15.0	NA	<15.0	NA	<15.0	NA	<15.0	NA
Aliphatic >C10-C12	mg/Kg	230	10000	N/S	<6.00	<15.0	NA	<6.00	<15.0	NA	<5.88	**46.5**	NA	NA	NA	NA	NA	**27.6**	**11.7**	NA	NA	NA	<5.88	NA	<6.00	<15.0	NA	<15.0	NA	<15.0	NA	<15.0	NA
Aliphatic >C12-C16	mg/Kg	370	10000	N/S	<6.00	<10.0	NA	**11.4**	**28**	NA	<5.88	**188**	NA	NA	NA	NA	NA	**88.9**	**48.9**	NA	NA	NA	<5.88	NA	<6.00	<10.0	NA	<10.0	NA	<10.0	NA	<10.0	NA
Aliphatic >C16-C35	mg/Kg	7,100	10000	N/S	**9.12**	<10.0	NA	<6.00	**89.3**	NA	**10.9**	**329**	NA	NA	NA	NA	NA	**149**	**90.8**	NA	NA	NA	<5.88	NA	<6.00	<10.0	NA	<10.0	NA	**40.2**	NA	**29.1**	NA
Aromatic >C8-C10	mg/Kg	65	65	N/S	NA	<10.0	NA	NA	<10.0	NA	NA	<10.0	NA	NA	NA	NA	NA	**216**	**134**	NA	NA	NA	<46.3	NA	NA	<10.0	NA	<10.0	NA	<10.0	NA	<10.0	NA
Aromatic >C10-C12	mg/Kg	120	100	N/S	<6.00	<10.0	NA	<6.00	<10.0	NA	<5.88	<10.0	NA	NA	NA	NA	NA	<6	<6	NA	NA	NA	<5.88	NA	<6.00	<10.0	NA	<10.0	NA	<10.0	NA	<10.0	NA
Aromatic >C12-C16	mg/Kg	180	200	N/S	<6.00	<15.0	NA	<6.00	**17.2**	NA	<5.88	**20.9**	NA	NA	NA	NA	NA	**12.3**	**12.6**	NA	NA	NA	<5.88	NA	<6.00	<15.0	NA	<15.0	NA	<15.0	NA	<15.0	NA
Aromatic >C16-C21	mg/Kg	150	2100	N/S	<6.00	<15.0	NA	<6.00	**22.6**	NA	<5.88	**24.2**	NA	NA	NA	NA	NA	**11.3**	**9.86**	NA	NA	NA	<5.88	NA	<6.00	<15.0	NA	<15.0	NA	<15.0	NA	<15.0	NA
Aromatic >C21-C35	mg/Kg	180	10000	N/S	<6.00	<15.0	NA	**22.1**	**38**	NA	<5.88	**59.4**	NA	NA	NA	NA	NA	**41.1**	**29.9**	NA	NA	NA	<5.88	NA	<6.00	<15.0	NA	<15.0	NA	<15.0	NA	**20**	NA
Total TPH (C6-C35)	mg/Kg	N/S	N/S	N/S	NA	<15.0	NA	NA	**195**	NA	NA	**622**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<15.0	NA	<15.0	NA	**40.2**	NA	**49.1**	NA
PAHs																																
2-Methylnaphthalene	mg/Kg	22	1.7	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00326	NA	<0.00324	**0.7**	**0.46**	NA	**0.014**	NA	<0.00326	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/Kg	370	220	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.015**	NA	<0.00647	**0.132**	**0.099**	NA	<0.00660	NA	<0.00651	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	mg/Kg	350	88	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00651	NA	<0.00647	<0.065	<0.066	NA	<0.00660	NA	<0.00651	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/Kg	2,200	120	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00326	NA	<0.00324	<0.033	<0.033	NA	<0.00330	NA	<0.00326	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/Kg	0.62	330	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.00984**	NA	<0.00647	<0.065	<0.066	NA	<0.00660	NA	<0.00651	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	mg/Kg	0.33	23	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00326	NA	<0.00324	<0.033	<0.033	NA	<0.00330	NA	<0.00326	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	mg/Kg	0.62	220	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00651	NA	<0.00647	<0.065	<0.066	NA	<0.00660	NA	<0.00651	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	mg/Kg	6.2	120	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00326	NA	<0.00324	<0.033	<0.033	NA	<0.00330	NA	<0.00326	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/Kg	62	76	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.014**	NA	<0.00647	**0.076**	<0.066	NA	<0.00660	NA	<0.00651	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	mg/Kg	0.33	540	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00651	NA	<0.00647	<0.065	<0.066	NA	<0.00660	NA	<0.00651	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/Kg	220	1200	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.042**	NA	**0.018**	**0.252**	**0.233**	NA	**0.00922**	NA	**0.00457**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	mg/Kg	280	230	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.012**	NA	**0.00732**	**0.441**	**0.212**	NA	**0.014**	NA	<0.00326	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	mg/Kg	0.62	9.2	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.00414**	NA	<0.00324	<0.033	<0.033	NA	<0.00330	NA	<0.00326	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/Kg	6.2	1.5	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00326	NA	<0.00324	**0.177**	**0.163**	NA	<0.00330	NA	<0.00326	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/Kg	2,100	660	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.026**	NA	**0.015**	**0.381**	**0.345**	NA	**0.013**	NA	**0.00436**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/Kg	230	1100	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.04**	NA	**0.015**	**0.148**	**0.136**	NA	**0.00645**	NA	**0.00397**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
[1] - Primary moisture value was reported by one lab and used for all wet/dry conversions. If multiple labs reported a moisture value the Primary moisture was used for the metals conversion
[2] - Secondary moisture value was reported by a separate lab.
ICON metals converted to wet weight.
Bolded values were detected in the sample
Highlight indicates exceedance of corresponding regulatory standard.
< - Not detected at or above the reporting limit shown
NA - Not analyzed, NS - No Standard

Table 4
Soil and Sediment Analytical Data
Jeanerette Lumber Shingle Co., LLC v. ConocoPhillips Company, et al.
Bayou Pigeon Oil Gas Field
Iberia Parish, Louisiana

				Sample ID	JLS-5		JLS-6						JLS-6R						JLS-7		JLS-8		JLS-9				JLS-9R					
				Location Name	Area 1		Area 1						Area 1						Area 1		Area 1		Area 1				Area 1					
				Location Description	Canal Sediment		Canal Sediment						Canal Sediment						Canal Sediment		Canal Sediment		Canal Sediment				Canal Sediment					
				Sample Date	5/27/2020		5/27/2020						1/13/2021						5/27/2020		5/27/2020		5/27/2020				1/13/2021					
				Interval (ft)	0-2		0-2		2-4		4-6		0-2		2-4		4-6		0-2		0-2		0-2		2-4		0-2		2-4		4-6	
Parameters	**Units**	**RECAP SOIL_ Ssni**	**RECAP SOIL_ SSGW**	**29-B Submerged Wet.**	HET	ICON	HET	ICON	HET	ICON	HET	ICON	HET	ICON	HET	ICON	HET	ICON	HET	ICON	HET	ICON	HET	ICON	HET	ICON	HET	ICON	HET	ICON	HET	ICON
Salts																															
% Moisture Primary[1]	%	N/S	N/S	N/S	**61.9**	**63.2**	**63.8**	**64.4**	**63**	**61.3**	**60.2**	**57.5**	**70.7**	**69.1**	**59.6**	**58.6**	**57.9**	**56.2**	**66.5, 68**	**67.5**	**59, 64.8**	**60.7**	**67.1, 67.8**	**65.6**	**65, 63.2**	**61.8**	**68.7**	**66.3**	**61.2**	**62.2**	**60**	**58.9**
% Moisture Secondary[2]	%	N/S	N/S	N/S	**62.7**	NA	**64.8**	NA	**63**	NA	**57.8**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
% Saturation	%	N/S	N/S	N/S	**125**	NA	**86**	NA	**88.6**	NA	**89.9**	NA	**89**	NA	**91.2**	NA	**93.6**	NA	**86.7**	NA	**119**	NA	**87.3**	NA	**84.3**	NA	**88.1**	NA	**89.3**	NA	**87.3**	NA
Cation Exchange Capacity (CEC)	meq/100g	N/S	N/S	N/S	**44.3**	**72.9**	**43.5**	**58.6**	**50.9**	**65.8**	**50**	**60**	NA	NA	NA	NA	NA	NA	**53**	**60.7**	**59.6**	**78.9**	**51.7**	**56.3**	**50**	**58**	NA	NA	NA	NA	NA	NA
Electrical Conductivity	mmhos/cm	N/S	N/S	N/S	**0.646**	**1.46**	**1.18**	**1.73**	**1.26**	**1.74**	**1.22**	**4.74**	NA	NA	NA	NA	NA	NA	**1.58**	**3.27**	**0.663**	**1.05**	**1.01**	**2.58**	**0.965**	**0.85**	NA	NA	NA	NA	NA	NA
Exchangeable Sodium Percentage	%	N/S	N/S	N/S	**1.28**	**1.24**	**0.778**	**0.92**	**0.84**	**1.05**	**0.783**	**3.66**	NA	NA	NA	NA	NA	NA	**2.31**	**2.36**	**0.773**	**1.02**	**0.253**	**1.47**	<0.100	**0.8**	NA	NA	NA	NA	NA	NA
Sodium Adsorption Ratio	Calc	N/S	N/S	N/S	**2.2**	**2.95**	**1.95**	**1.89**	**2.26**	**1.84**	**2.36**	**5.37**	NA	NA	NA	NA	NA	NA	**4.75**	**4.81**	**2.35**	**1.7**	**2.44**	**2.8**	**3.78**	**1.07**	NA	NA	NA	NA	NA	NA
Soluble Calcium	meq/L	N/S	N/S	N/S	**1.72**	**3.78**	**4.17**	**6.23**	**3.74**	**5.76**	**4.14**	**13**	**4.39**	NA	**3.82**	NA	**2.74**	NA	**5.07**	**9.5**	**1.83**	**3.49**	**2.67**	**7.58**	**2.26**	**2.25**	**3.49**	NA	**3.74**	NA	**2.86**	NA
Soluble Magnesium	meq/L	N/S	N/S	N/S	**0.932**	**1.89**	**1.64**	**2.72**	**1.79**	**2.62**	**1.65**	**6.99**	**2.14**	NA	**2.05**	NA	**1.68**	NA	**1.68**	**4.12**	**1.09**	**1.97**	**1.5**	**3.49**	**1.24**	**1.15**	**1.63**	NA	**1.96**	NA	**1.59**	NA
Soluble Sodium	meq/L	N/S	N/S	N/S	**2.53**	**4.96**	**3.33**	**4**	**3.75**	**3.77**	**4.01**	**17**	**2.59**	NA	**3.33**	NA	**2.91**	NA	**8.73**	**12.6**	**2.84**	**2.8**	**3.53**	**6.58**	**5**	**1.4**	**1.43**	NA	**1.85**	NA	**1.93**	NA
SPLP Chloride	mg/L	N/S	5000	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Sodium	mg/L	N/S	1500	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
29-B Leachate Chloride	mg/L	N/S	N/S	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	mg/Kg	N/S	N/S	N/S	**29.6**	NA	**36.4**	NA	**45.2**	NA	**42.6**	NA	**28.2**	NA	**40**	NA	**40.7**	NA	**64.1**	NA	**35.8**	NA	**21.4**	NA	**27.7**	NA	**15.9**	NA	**25.7**	NA	**47.1**	NA
Chloride	meq/L	N/S	N/S	N/S	**4.1**	NA	**8.93**	NA	**4.49**	NA	**3.96**	NA	**3.12**	NA	**4.62**	NA	**3.52**	NA	**7.48**	NA	**3.08**	NA	**2.48**	NA	**3.44**	NA	**2**	NA	**2.55**	NA	**4.6**	NA
Alkalinity (Sat. Paste)	meq/L	N/S	N/S	N/S	**0.9**	NA	**2.4**	NA	**6.1**	NA	**6.2**	NA	**6.4**	NA	**5.6**	NA	**4.5**	NA	**6.6**	NA	**5.8**	NA	**4.6**	NA	**2.8**	NA	**3.6**	NA	**6.5**	NA	**3.8**	NA
Sulfate	meq/L	N/S	N/S	N/S	**0.749**	NA	**5.76**	NA	**1.84**	NA	**1.37**	NA	**1.8**	NA	**1.86**	NA	**1.3**	NA	**1.64**	NA	**1.51**	NA	**2.16**	NA	**1.89**	NA	**2.66**	NA	**1.59**	NA	**1.73**	NA
Total Organic Carbon	mg/Kg-dry	N/S	N/S	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	N/S	N/S	6-9	**6.66**	NA	**7.18**	NA	**7.13**	NA	**7.21**	NA	**7.65**	NA	**7.79**	NA	**7.68**	NA	**7.37**	NA	**6.55**	NA	**7.18**	NA	**7.02**	NA	**7.25**	NA	**7.54**	NA	**7.62**	NA
SPLP Metals																																
SPLP Arsenic	mg/L	N/S	0.2	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Barium	mg/L	N/S	40	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Cadmium	mg/L	N/S	0.1	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Zinc	mg/L	N/S	220	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals (Wet Weight)																																
Arsenic	mg/Kg	12	100	10	<2.00	**1.9**	**3.04**	**3.05**	**3.23**	**4**	**3.03**	**5.3**	NA	NA	NA	NA	**3.5**	**3.32**	**2.66**	**4**	**2.72**	**2.84**	**3.33**	**4.2**	**3.31**	**4**	**2.53**	NA	**3.03**	NA	**3.57**	**3.6**
Barium	mg/Kg	550	2000	N/S	**77.6**	**87**	**203**	**298**	**161**	**495**	**186**	**358**	**214**	**189**	**508**	**349**	**547**	**377**	**155**	**239**	**89.1**	**80**	**136**	**338**	**226**	**413**	**251**	**377**	**347**	**465**	**369**	**518**
True Total Barium	mg/Kg-dry	N/S	N/S	20,000	<500	**293**	**976**	**996**	**2060**	**1460**	**1080**	**1020**	NA	NA	NA	NA	NA	NA	**855**	**862**	<500	**307**	**1170**	**1210**	**1490**	**1340**	NA	NA	NA	NA	NA	NA
Cadmium	mg/Kg	3.9	20	10	<0.200	**0.215**	**0.205**	**0.268**	**0.244**	**0.33**	**0.254**	**0.326**	NA	NA	NA	NA	NA	NA	<0.200	**0.259**	**0.219**	**0.266**	**0.203**	**0.236**	<0.200	**0.251**	NA	NA	NA	NA	NA	NA
Chromium	mg/Kg	12000	100	500	**11.4**	**6.8**	**12**	**6.2**	**11**	**7.3**	**11.4**	**7.4**	NA	NA	NA	NA	NA	NA	**11.2**	**5.7**	**11.6**	**7.7**	**11.3**	**6**	**9.39**	**6.2**	NA	NA	NA	NA	NA	NA
Lead	mg/Kg	400	100	500	**6.78**	**6.8**	**7.26**	**8.2**	**8.39**	**8.7**	**8.16**	**9.1**	NA	NA	NA	NA	NA	NA	**6.3**	**6.8**	**8.15**	**8.3**	**6.25**	**6.7**	**6.49**	**7.8**	NA	NA	NA	NA	NA	NA
Mercury	mg/Kg	2.3	4	10	**0.0255**	<0.0348	**0.0327**	**0.041**	**0.0376**	**0.038**	**0.0314**	<0.0425	NA	NA	NA	NA	NA	NA	**0.0308**	<0.0309	**0.0312**	<0.03928	**0.0343**	<0.0331	**0.0375**	**0.04**	NA	NA	NA	NA	NA	NA
Selenium	mg/Kg	39	20	10	<1.00	<1.46	<1.00	<1.32	<1.00	<1.5	<1.00	<1.59	NA	NA	NA	NA	NA	NA	<1.00	<1.23	<1.00	<1.54	<1.00	<1.35	<1.00	<1.43	NA	NA	NA	NA	NA	NA
Silver	mg/Kg	39	100	200	<0.500	NA	<0.500	NA	<0.500	NA	<0.500	NA	NA	NA	NA	NA	NA	NA	<0.500	NA	<0.500	NA	<0.500	NA	<0.500	NA	NA	NA	NA	NA	NA	NA
Strontium	mg/Kg	N/S	N/S	N/S	NA	**17**	NA	**22.6**	NA	**29.8**	NA	**44**	NA	NA	NA	NA	NA	NA	NA	**30.8**	NA	**20.1**	NA	**18.7**	NA	**19.5**	NA	NA	NA	NA	NA	NA
Zinc	mg/Kg	2300	2800	500	**31.3**	**28**	**32.5**	**33.1**	**38.1**	**36.9**	**35.3**	**36.6**	NA	NA	NA	NA	NA	NA	**32.7**	**38**	**35.6**	**32**	**29.1**	**27.7**	**28.6**	**30.5**	NA	NA	NA	NA	NA	NA
Hydrocarbons																																
Oil & Grease	dry wt %	65	N/S	1	<0.134	NA	**0.626**	NA	<0.135	NA	<0.118	NA	NA	NA	NA	NA	NA	NA	<0.156	NA	<0.142	NA	<0.155	NA	<0.136	NA	NA	NA	NA	NA	NA	NA
TPH-DRO (>C10-C28)	mg/Kg	180	65	N/S	NA	<50	NA	**545**	NA	**234**	NA	**126**	NA	NA	NA	NA	NA	NA	NA	**239**	NA	<50	NA	**157**	NA	**59.6**	NA	NA	NA	NA	NA	NA
TPH-ORO (>C28-C35)	mg/Kg	N/S	10000	N/S	NA	**65**	NA	**438**	NA	**297**	NA	**157**	NA	NA	NA	NA	NA	NA	NA	**240**	NA	**62**	NA	**138**	NA	**89.1**	NA	NA	NA	NA	NA	NA
Aliphatic C6-C8	mg/Kg	1,200	10000	N/S	<40.2	NA	<15.0	NA	<15.0	NA	<15.0	NA	NA	NA	NA	NA	NA	NA	<15.0	NA	<15.0	NA	<15.0	NA	<15.0	NA	NA	NA	NA	NA	NA	NA
Aliphatic >C8-C10	mg/Kg	120	5300	N/S	<40.2	NA	<15.0	NA	<15.0	NA	<15.0	NA	NA	NA	NA	NA	NA	NA	<15.0	NA	<15.0	NA	<15.0	NA	<15.0	NA	NA	NA	NA	NA	NA	NA
Aliphatic >C10-C12	mg/Kg	230	10000	N/S	<40.2	NA	<15.0	NA	<15.0	NA	<15.0	NA	NA	NA	NA	NA	NA	NA	<15.0	NA	<15.0	NA	<15.0	NA	<15.0	NA	NA	NA	NA	NA	NA	NA
Aliphatic >C12-C16	mg/Kg	370	10000	N/S	<26.8	NA	**98.1**	NA	<10.0	NA	**15.1**	NA	NA	NA	NA	NA	NA	NA	**26.1**	<10.0	<10.0	NA	**42**	NA	**13**	NA	NA	NA	NA	NA	NA	NA
Aliphatic >C16-C35	mg/Kg	7,100	10000	N/S	<26.8	NA	**213**	NA	**42.5**	NA	**104**	NA	NA	NA	NA	NA	NA	NA	**86.8**	NA	<10.0	NA	**107**	NA	**61.8**	NA	NA	NA	NA	NA	NA	NA
Aromatic >C8-C10	mg/Kg	65	65	N/S	<10.0	NA	<10.0	NA	<10.0	NA	<10.0	NA	NA	NA	NA	NA	NA	NA	<10.0	NA	<10.0	NA	<10.0	NA	<10.0	NA	NA	NA	NA	NA	NA	NA
Aromatic >C10-C12	mg/Kg	120	100	N/S	<10.0	NA	<10.0	NA	<10.0	NA	<10.0	NA	NA	NA	NA	NA	NA	NA	<10.0	NA	<10.0	NA	<10.0	NA	<10.0	NA	NA	NA	NA	NA	NA	NA
Aromatic >C12-C16	mg/Kg	180	200	N/S	<15.0	NA	**24.2**	NA	<15.0	NA	<15.0	NA	NA	NA	NA	NA	NA	NA	<15.0	NA	<15.0	NA	<15.0	NA	<15.0	NA	NA	NA	NA	NA	NA	NA
Aromatic >C16-C21	mg/Kg	150	2100	N/S	<15.0	NA	**48.4**	NA	<15.0	NA	<15.0	NA	NA	NA	NA	NA	NA	NA	**22.9**	NA	<15.0	NA	**22.7**	NA	<15.0	NA	NA	NA	NA	NA	NA	NA
Aromatic >C21-C35	mg/Kg	180	10000	N/S	<15.0	NA	**87.2**	NA	**32.6**	NA	**29.7**	NA	NA	NA	NA	NA	NA	NA	**41.2**	NA	**19.7**	NA	**56.3**	NA	**21.4**	NA	NA	NA	NA	NA	NA	NA
Total TPH (C6-C35)	mg/Kg	N/S	N/S	N/S	<15.0	NA	**471**	NA	**75.1**	NA	**149**	NA	NA	NA	NA	NA	NA	NA	**177**	NA	**19.7**	NA	**228**	NA	**96.2**	NA	NA	NA	NA	NA	NA	NA
PAHs																																
2-Methylnaphthalene	mg/Kg	22	1.7	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/Kg	370	220	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	mg/Kg	350	88	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/Kg	2,200	120	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/Kg	0.62	330	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	mg/Kg	0.33	23	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	mg/Kg	0.62	220	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	mg/Kg	6.2	120	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/Kg	62	76	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	mg/Kg	0.33	540	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/Kg	220	1200	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	mg/Kg	280	230	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	mg/Kg	0.62	9.2	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/Kg	6.2	1.5	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/Kg	2,100	660	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/Kg	230	1100	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
[1] - Primary moisture value was reported by one lab and used for all wet/dry conversions. If multiple labs reported a moisture value the Primary moisture was used for the metals conversion
[2] - Secondary moisture value was reported by a separate lab.
ICON metals converted to wet weight.
Bolded values were detected in the sample
Highlight indicates exceedance of corresponding regulatory standard.
< - Not detected at or above the reporting limit shown
NA - Not analyzed, NS - No Standard

Table 4
Soil and Sediment Analytical Data
Jeanerette Lumber Shingle Co., LLC v. ConocoPhillips Company, et al.
Bayou Pigeon Oil Gas Field
Iberia Parish, Louisiana

Sample ID					JLS-10							JLS-11				JLS-12				JLS-12R							JLS-13					
Location Name					Area 2							Area 2				Area 2				Area 2							Area 2					
Location Description					Soil							Soil				Soil				Soil							Soil					
Sample Date					7/29/2020							7/30/2020				8/3/2020				1/14/2021							8/4/2020					
Interval (ft)					12-14		20-22		24-26	34-36		0-4	8-12	24-28	30-32	0-4	8-12	20-22	44-49	0-2	2-4	8-10		10-12	20-22		0-4	6-8	10-12	20-22	46-48	46-48
Parameters	**Units**	**RECAP SOIL_ Ssni**	**RECAP SOIL_ SSGW**	**29-B Submerged Wet.**	ERM	ICON	ERM	ICON	ICON	ERM	ICON	ICON	ICON	ICON	ICON	ICON	ICON	ICON	ICON	HET	HET	HET	ICON	HET	HET	ICON	ICON	ICON	ICON	ICON	HET	ICON
Salts																																
% Moisture Primary[1]	%	N/S	N/S	N/S	**78.3**	**74.9**	**48.8**	**47.2**	**27.1**	**40.2**	**40.3**	**41.3**	**54.8**	**46.7**	**28.9**	**51.5**	**69.5**	**36.4**	**23.7**	**40.2**	**42.7**	**61.3**	**57.4**	**53.2**	**35.4**	NA	**50.5**	**52.3**	**59.1**	**50.2**	**26.2**	**23.9**
% Moisture Secondary[2]	%	N/S	N/S	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
% Saturation	%	N/S	N/S	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**118**	**138**	**228**	NA	**285**	**107**	NA	NA	NA	NA	NA	**47.4**	NA
Cation Exchange Capacity (CEC)	meq/100g	N/S	N/S	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**58.1**	**96.1**	NA	NA	NA	NA	NA	NA	NA	NA	NA	**47.5**	**72.7**	**56.7**	NA	NA	NA
Electrical Conductivity	mmhos/cm	N/S	N/S	N/S	**3.02**	**2.6**	**1.75**	**1.56**	**1.26**	**1.18**	**1.13**	**5.06**	**44.5**	**83.4**	**82**	**4.04**	**47.9**	**48.1**	**1.04**	NA	NA	**6.74**	NA	**10.2**	**49.8**	**49.0**	**3.21**	**6.57**	**42.7**	**13.6**	**1.04**	**1.12**
Exchangeable Sodium Percentage	%	N/S	N/S	N/S	NA	NA	NA	NA	NA	NA	NA	**9.67**	**14.6**	NA	NA	**14.5**	**31.4**	NA	NA	NA	NA	NA	NA	NA	NA	NA	**14.8**	**14.6**	**9.08**	NA	NA	NA
Sodium Adsorption Ratio	Calc	N/S	N/S	N/S	NA	NA	NA	NA	NA	NA	NA	15,4	**50**	NA	NA	**18**	**76**	NA	NA	**3.35**	**12.3**	NA	NA	NA	NA	NA	**12.8**	**18.9**	**20.7**	NA	NA	NA
Soluble Calcium	meq/L	N/S	N/S	N/S	NA	NA	NA	NA	NA	NA	NA	**4.81**	**66.2**	NA	NA	**2.81**	**42.7**	NA	NA	**2.69**	**2.31**	**2.05**	NA	**2.5**	**45.4**	NA	**3.02**	**6.89**	**184**	NA	**1.97**	NA
Soluble Magnesium	meq/L	N/S	N/S	N/S	NA	NA	NA	NA	NA	NA	NA	**2.69**	**30.1**	NA	NA	**1.59**	**20.8**	NA	NA	**1.6**	**1.14**	**1.06**	NA	**1.13**	**17.1**	NA	**1.5**	**3.37**	**50.2**	NA	<0.820	NA
Soluble Sodium	meq/L	N/S	N/S	N/S	NA	NA	NA	NA	NA	NA	NA	**29.8**	**347**	NA	NA	**26.8**	**428**	NA	NA	**4.91**	**16.1**	**55.5**	NA	**87.7**	**433**	NA	**19.2**	**42.7**	**224**	NA	**7.69**	NA
SPLP Chloride	mg/L	N/S	5000	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**622**	NA	NA	NA	NA	NA	NA	NA
SPLP Sodium	mg/L	N/S	1500	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**406**	NA	NA	NA	NA	NA	NA	NA
29-B Leachate Chloride	mg/L	N/S	N/S	N/S	NA	NA	NA	NA	**24.1**	NA	NA	NA	NA	**7400**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	mg/Kg	N/S	N/S	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**120**	**586**	**2320**	NA	**4240**	**13600**	NA	NA	NA	NA	NA	**57.7**	NA
Chloride	meq/L	N/S	N/S	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**5.66**	**20.2**	**63**	NA	**93.8**	**549**	NA	NA	NA	NA	NA	**5.64**	NA
Alkalinity (Sat. Paste)	meq/L	N/S	N/S	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**1.3**	**1.4**	**1.7**	NA	**1.7**	**1.6**	NA	NA	NA	NA	NA	**2.9**	NA
Sulfate	meq/L	N/S	N/S	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**3.61**	**0.786**	**0.623**	NA	<1.00	<5.00	NA	NA	NA	NA	NA	**1.19**	NA
Total Organic Carbon	mg/Kg-dry	N/S	N/S	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	N/S	N/S	6-9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**7.87**	**7.86**	**7.93**	NA	**7.89**	**7.92**	NA	NA	NA	NA	NA	**7.1**	NA
SPLP Metals																																
SPLP Arsenic	mg/L	N/S	0.2	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Barium	mg/L	N/S	40	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Cadmium	mg/L	N/S	0.1	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Zinc	mg/L	N/S	220	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals (Wet Weight)																																
Arsenic	mg/Kg	12	100	10	NA	NA	NA	NA	NA	NA	NA	**6.3**	**5.5**	NA	NA	**3.6**	**4**	NA	NA	NA	NA	<2.00	**2.2**	**2.32**	NA	NA	**3.39**	**4.73**	**3.94**	NA	NA	NA
Barium	mg/Kg	550	2000	N/S	NA	NA	NA	NA	NA	NA	NA	**238**	**104**	NA	NA	**277**	**96**	NA	NA	**151**	**144**	NA	NA	NA	NA	NA	**92**	**107**	**96**	NA	NA	NA
True Total Barium	mg/Kg-dry	N/S	N/S	20,000	NA	NA	NA	NA	NA	NA	NA	**478**	**328**	NA	NA	**777**	**449**	NA	NA	NA	NA	NA	NA	NA	NA	NA	**300**	**351**	**367**	NA	NA	NA
Cadmium	mg/Kg	3.9	20	10	NA	NA	NA	NA	NA	NA	NA	**0.409**	**0.391**	NA	NA	**0.255**	**0.23**	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.28**	<0.219	**0.273**	NA	NA	NA
Chromium	mg/Kg	12000	100	500	NA	NA	NA	NA	NA	NA	NA	**10.3**	**7.9**	NA	NA	**9.9**	**4.8**	NA	NA	NA	NA	NA	NA	NA	NA	NA	**8.5**	**6.7**	**6.7**	NA	NA	NA
Lead	mg/Kg	400	100	500	NA	NA	NA	NA	NA	NA	NA	**10.7**	**7.8**	NA	NA	**10**	**3.3**	NA	NA	NA	NA	NA	NA	NA	NA	NA	**8**	**8.3**	**6.6**	NA	NA	NA
Mercury	mg/Kg	2.3	4	10	NA	NA	NA	NA	NA	NA	NA	<0.06	<0.046	NA	NA	<0.0484	<0.032	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.052	<0.049	<0.044	NA	NA	NA
Selenium	mg/Kg	39	20	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	mg/Kg	39	100	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Strontium	mg/Kg	N/S	N/S	N/S	NA	NA	NA	NA	NA	NA	NA	**73**	**35**	NA	NA	**58**	**60**	NA	NA	NA	NA	NA	NA	NA	NA	NA	**37**	**29.2**	**38.6**	NA	NA	NA
Zinc	mg/Kg	2300	2800	500	NA	NA	NA	NA	NA	NA	NA	**40.4**	**34.8**	NA	NA	**40.8**	**11.1**	NA	NA	NA	NA	NA	NA	NA	NA	NA	**38.4**	**25**	**27.5**	NA	NA	NA
Hydrocarbons																																
Oil & Grease	dry wt %	65	N/S	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH-DRO (>C10-C28)	mg/Kg	180	65	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH-ORO (>C28-C35)	mg/Kg	N/S	10000	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aliphatic C6-C8	mg/Kg	1,200	10000	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aliphatic >C8-C10	mg/Kg	120	5300	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aliphatic >C10-C12	mg/Kg	230	10000	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aliphatic >C12-C16	mg/Kg	370	10000	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aliphatic >C16-C35	mg/Kg	7,100	10000	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aromatic >C8-C10	mg/Kg	65	65	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aromatic >C10-C12	mg/Kg	120	100	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aromatic >C12-C16	mg/Kg	180	200	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aromatic >C16-C21	mg/Kg	150	2100	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aromatic >C21-C35	mg/Kg	180	10000	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total TPH (C6-C35)	mg/Kg	N/S	N/S	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PAHs																																
2-Methylnaphthalene	mg/Kg	22	1.7	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/Kg	370	220	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	mg/Kg	350	88	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/Kg	2,200	120	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/Kg	0.62	330	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	mg/Kg	0.33	23	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	mg/Kg	0.62	220	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	mg/Kg	6.2	120	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/Kg	62	76	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	mg/Kg	0.33	540	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/Kg	220	1200	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	mg/Kg	280	230	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	mg/Kg	0.62	9.2	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/Kg	6.2	1.5	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/Kg	2,100	660	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/Kg	230	1100	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
[1] - Primary moisture value was reported by one lab and used for all wet/dry conversions. If multiple labs reported a moisture value the Primary moisture was used for the metals conversion
[2] - Secondary moisture value was reported by a separate lab.
ICON metals converted to wet weight.
Bolded values were detected in the sample
Highlight indicates exceedance of corresponding regulatory standard.
< - Not detected at or above the reporting limit shown
NA - Not analyzed, NS - No Standard

Table 4
Soil and Sediment Analytical Data
Jeanerette Lumber Shingle Co., LLC v. ConocoPhillips Company, et al.
Bayou Pigeon Oil Gas Field
Iberia Parish, Louisiana

Parameters	Units	RECAP SOIL_ Ssni	RECAP SOIL_ SSGW	29-B Submerged Wet.	JLS-14							JLS-14R		JLS-15								JLS-15R						
Sample ID					JLS-14							JLS-14R		JLS-15								JLS-15R						
Location Name					Area 2							Area 2		Area 2								Area 2						
Location Description					Soil							Soil		Soil								Soil						
Sample Date					8/5/2020							1/14/2021		8/6/2020								1/14/2021				2/3/2021		
Interval (ft)					2-4	4-8	8-12	20-22		40-44	44-48	8-10	10-12	0-4	8-12	12-16	24-26		44-46		46-48	8-10	10-12	24-26		12-14	14-16	
Salts																												
% Moisture Primary[1]	%	N/S	N/S	N/S	**60.9**	**48.9**	**59.2**	**53**	**50.9**	**28.5**	**23.7**	**70.9**	**85.1**	**47.8**	**66.8**	**65.2**	**55.3**	**51.8**	**29.8**	**28.3**	**36.9**	**33**	**56.2**	**78.1**	**48.2**	NA	**72.5**	**50.5**	**50.2**
% Moisture Secondary[2]	%	N/S	N/S	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
% Saturation	%	N/S	N/S	N/S	NA	NA	NA	**128**	NA	NA	NA	**158**	**181**	NA	NA	NA	**114**	NA	**136**	NA	**129**	NA	**139**	**179**	**105**	NA	**153**	**122**	NA
Cation Exchange Capacity (CEC)	meq/100g	N/S	N/S	N/S	**82.2**	**71.2**	**64.6**	NA	NA	NA	NA	NA	NA	**71.7**	**73.1**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Electrical Conductivity	mmhos/cm	N/S	N/S	N/S	**1.2**	**0.72**	**7.36**	**1.19**	**1.28**	**0.77**	**0.68**	**1.2**	**1.36**	**0.64**	**6.96**	**7.02**	**1.2**	**12.7**	**0.746**	**0.63**	**0.623**	**0.63**	NA	NA	**1.19**	**1.18**	**1.69**	**1.10**	**1.75**
Exchangeable Sodium Percentage	%	N/S	N/S	N/S	**0.33**	**0.76**	**2.17**	NA	NA	NA	NA	NA	NA	**0.76**	**2.43**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium Adsorption Ratio	Calc	N/S	N/S	N/S	**2.83**	**2.75**	**2.39**	NA	NA	NA	NA	NA	NA	**1.73**	**2.87**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soluble Calcium	meq/L	N/S	N/S	N/S	**3.35**	**1.61**	**60.8**	**3.78**	NA	NA	NA	**3.67**	**3.63**	**1.81**	**54.5**	NA	**4.05**	NA	**1.48**	NA	**1.26**	NA	**2.75**	**4.94**	**2.57**	NA	**4.56**	**3.06**	NA
Soluble Magnesium	meq/L	N/S	N/S	N/S	**1.71**	**0.85**	**27**	**1.49**	NA	NA	NA	**2.24**	**2.65**	**0.98**	**29.1**	NA	**1.64**	NA	<0.820	NA	<0.820	NA	**1.55**	**3.23**	**1.79**	NA	**2.68**	**1.76**	NA
Soluble Sodium	meq/L	N/S	N/S	N/S	**4.49**	**3.04**	**15.8**	**7.66**	NA	NA	NA	**4.79**	**5.81**	**2.04**	**18.6**	NA	**7.62**	NA	**4.9**	NA	**4.53**	NA	**4.05**	**5.6**	**5.64**	NA	**7.21**	**4.91**	NA
SPLP Chloride	mg/L	N/S	5000	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Sodium	mg/L	N/S	1500	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
29-B Leachate Chloride	mg/L	N/S	N/S	N/S	NA	NA	NA	NA	NA	**11.6**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	mg/Kg	N/S	N/S	N/S	NA	NA	NA	**93.9**	NA	NA	NA	**85**	**118**	NA	NA	NA	**109**	NA	**47**	NA	**50.5**	NA	**46.9**	**95.1**	**111**	NA	**1210**	**467**	NA
Chloride	meq/L	N/S	N/S	N/S	NA	NA	NA	**6.18**	NA	NA	NA	**6.14**	**7.17**	NA	NA	NA	**7.68**	NA	**2.18**	NA	**2.02**	NA	**6.39**	**8.16**	**6.72**	NA	**12.0**	**5.81**	NA
Alkalinity (Sat. Paste)	meq/L	N/S	N/S	N/S	NA	NA	NA	**3.2**	NA	NA	NA	**2.8**	**3.2**	NA	NA	NA	**3.2**	NA	**3.6**	NA	**3.4**	NA	**2**	**3.1**	**3**	NA	**1.8**	**4.5**	NA
Sulfate	meq/L	N/S	N/S	N/S	NA	NA	NA	**2.02**	NA	NA	NA	**1.58**	**2.23**	NA	NA	NA	**1.03**	NA	**1.28**	NA	**0.503**	NA	**0.819**	**3.21**	**1.1**	NA	**1.61**	**0.460**	NA
Total Organic Carbon	mg/Kg-dry	N/S	N/S	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	N/S	N/S	6-9	NA	NA	NA	**7.24**	NA	NA	NA	**7.53**	**7.64**	NA	NA	NA	**7.24**	NA	**7.23**	NA	**7.19**	NA	**8.5**	**7.96**	**8.13**	NA	**7.71**	**8.15**	NA
SPLP Metals																														
SPLP Arsenic	mg/L	N/S	0.2	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Barium	mg/L	N/S	40	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Cadmium	mg/L	N/S	0.1	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Zinc	mg/L	N/S	220	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals (Wet Weight)																														
Arsenic	mg/Kg	12	100	10	**3.45**	**2.84**	**3.66**	NA	NA	NA	NA	NA	NA	**3.88**	**3.4**	NA	NA	NA	NA	NA	NA	NA	**2.7**	<2.00	NA	NA	NA	NA	NA
Barium	mg/Kg	550	2000	N/S	**73**	**125**	**97**	NA	NA	NA	NA	NA	NA	**110**	**77**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
True Total Barium	mg/Kg-dry	N/S	N/S	20,000	**288**	**338**	**336**	NA	NA	NA	NA	NA	NA	**404**	**331**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	mg/Kg	3.9	20	10	**0.29**	**0.243**	**0.4**	NA	NA	NA	NA	NA	NA	**0.273**	**0.194**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	mg/Kg	12000	100	500	**7.2**	**8.9**	**7.4**	NA	NA	NA	NA	NA	NA	**9.3**	**5.8**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/Kg	400	100	500	**7.5**	**9**	**6.9**	NA	NA	NA	NA	NA	NA	**9.8**	**6**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	mg/Kg	2.3	4	10	<0.039	<0.052	<0.042	NA	NA	NA	NA	NA	NA	<0.052	<0.032	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/Kg	39	20	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	mg/Kg	39	100	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Strontium	mg/Kg	N/S	N/S	N/S	**18**	**24.5**	**38.8**	NA	NA	NA	NA	NA	NA	**24.3**	**38**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/Kg	2300	2800	500	**30.7**	**33.3**	**29**	NA	NA	NA	NA	NA	NA	**39**	**19.4**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hydrocarbons																														
Oil & Grease	dry wt %	65	N/S	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH-DRO (>C10-C28)	mg/Kg	180	65	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH-ORO (>C28-C35)	mg/Kg	N/S	10000	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aliphatic C6-C8	mg/Kg	1,200	10000	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aliphatic >C8-C10	mg/Kg	120	5300	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aliphatic >C10-C12	mg/Kg	230	10000	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aliphatic >C12-C16	mg/Kg	370	10000	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aliphatic >C16-C35	mg/Kg	7,100	10000	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aromatic >C8-C10	mg/Kg	65	65	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aromatic >C10-C12	mg/Kg	120	100	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aromatic >C12-C16	mg/Kg	180	200	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aromatic >C16-C21	mg/Kg	150	2100	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aromatic >C21-C35	mg/Kg	180	10000	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total TPH (C6-C35)	mg/Kg	N/S	N/S	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PAHs																														
2-Methylnaphthalene	mg/Kg	22	1.7	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/Kg	370	220	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	mg/Kg	350	88	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/Kg	2,200	120	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/Kg	0.62	330	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	mg/Kg	0.33	23	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	mg/Kg	0.62	220	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	mg/Kg	6.2	120	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/Kg	62	76	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	mg/Kg	0.33	540	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/Kg	220	1200	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	mg/Kg	280	230	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	mg/Kg	0.62	9.2	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/Kg	6.2	1.5	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/Kg	2,100	660	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/Kg	230	1100	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
[1] - Primary moisture value was reported by one lab and used for all wet/dry conversions. If multiple labs reported a moisture value the Primary moisture was used for the metals conversion
[2] - Secondary moisture value was reported by a separate lab.
ICON metals converted to wet weight.
Bolded values were detected in the sample
Highlight indicates exceedance of corresponding regulatory standard.
< - Not detected at or above the reporting limit shown
NA - Not analyzed, NS - No Standard

Table 4
Soil and Sediment Analytical Data
Jeanerette Lumber Shingle Co., LLC v. ConocoPhillips Company, et al.
Bayou Pigeon Oil Gas Field
Iberia Parish, Louisiana

Sample ID					JLS-16					JLS-17										JLS-18						JLS-19			
Location Name					Area 2					Area 2										Area 1						Area 1			
Location Description					Soil					Soil										Soil						Soil			
Sample Date					8/6/2020					8/7/2020										8/10/2020						8/10/2020			
Interval (ft)					0-4	4-6	6-8	24-28	36-40	0-4	4-8	12-16	24-26		40-42		46-48			0-2		2-4		4-6		0-2		2-4		4-6	
Parameters	**Units**	**RECAP SOIL_ Ssni**	**RECAP SOIL_ SSGW**	**29-B Submerged Wet.**	ICON	ICON	ICON	ICON	ICON	ICON	ICON	ICON	HET	ICON	HET	ICON	HET	ICON	HET	ICON	HET	ICON	HET	ICON	HET	ICON	HET	ICON	HET	ICON
Salts																														
% Moisture Primary[1]	%	N/S	N/S	N/S	**50.9**	**46.7**	**64.5**	**40.8**	**44.7**	**53**	**44.9**	**58.1**	**51.8**	**50**	**34.4**	**28.1**	**23.4**	**23.5**	**35.3**	**32.6**	**46.5**	**45.5**	**50**	**42.3**	**32.1**	**29**	**26.3**	**24.4**	**32.8**	**30.6**
% Moisture Secondary[2]	%	N/S	N/S	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**36.9**	NA	**33.2**	NA	**46.6**	NA	**32.4**	NA	**28.8**	NA	**42.4**	NA
% Saturation	%	N/S	N/S	N/S	NA	NA	NA	NA	NA	NA	NA	NA	**124**	NA	**126**	NA	**42.7**	NA	**97**	NA	**94.7**	NA	**103**	NA	**101**	NA	**79**	NA	**77.4**	NA
Cation Exchange Capacity (CEC)	meq/100g	N/S	N/S	N/S	**71.3**	**55.9**	**84.2**	**1.06**	**0.87**	**66**	**56.8**	NA	NA	NA	NA	NA	NA	NA	**41.7**	**43.9**	**50.9**	**55.3**	NA	**53.4**	**53**	**47.9**	**31.3**	**30.4**	NA	**32.5**
Electrical Conductivity	mmhos/cm	N/S	N/S	N/S	**0.48**	**0.38**	**0.81**	NA	NA	**0.99**	**4.98**	**1.36**	**1.3**	**0.74**	**0.58**	**0.38**	**0.663**	**0.76**	**0.741**	**0.64**	**0.554**	**0.9**	**0.852**	**1.37**	**0.333**	**0.5**	**0.562**	**0.7**	**0.992**	**1.01**
Exchangeable Sodium Percentage	%	N/S	N/S	N/S	**0.92**	**1.22**	**0.93**	NA	NA	**0.61**	**1.1**	NA	NA	NA	NA	NA	NA	NA	**0.4**	**0.66**	**0.894**	**1.05**	NA	**1.12**	**0.674**	**0.64**	**1.83**	**2.1**	NA	**2.22**
Sodium Adsorption Ratio	Calc	N/S	N/S	N/S	**1.35**	**1.71**	**1.62**	NA	NA	**1.32**	**2.21**	NA	NA	NA	NA	NA	NA	NA	**1.75**	**1.22**	**4.69**	**1.92**	NA	**2**	**1.71**	**1.44**	**4.44**	**2.45**	NA	**2.66**
Soluble Calcium	meq/L	N/S	N/S	N/S	**1.47**	**0.91**	**2.72**	NA	NA	**4.14**	**37.2**	NA	**3.54**	NA	**0.797**	NA	**0.731**	NA	**3.29**	**2.3**	**1.45**	**2.79**	**2.33**	**4.71**	**1.24**	**1.63**	**1.47**	**1.78**	**2.77**	**2.46**
Soluble Magnesium	meq/L	N/S	N/S	N/S	**0.8**	**0.5**	**1.42**	NA	NA	**2.16**	**10.7**	NA	**1.54**	NA	<0.820	NA	<0.820	NA	**1.56**	**1.2**	<0.820	**2.59**	**1.2**	**2.63**	<0.820	**0.9**	<0.820	**1.03**	**1.25**	**1.38**
Soluble Sodium	meq/L	N/S	N/S	N/S	**1.43**	**1.44**	**2.33**	NA	NA	**2.35**	**10.8**	NA	**7.56**	NA	**4.76**	**17.1**	**6.2**	NA	**2.73**	**1.62**	**3.99**	**2.84**	**4.59**	**3.84**	**1.35**	**1.62**	**3.81**	**2.9**	**5.45**	**3.68**
SPLP Chloride	mg/L	N/S	5000	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Sodium	mg/L	N/S	1500	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
29-B Leachate Chloride	mg/L	N/S	N/S	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	mg/Kg	N/S	N/S	N/S	NA	NA	NA	NA	NA	NA	NA	NA	**111**	NA	**45.4**	NA	**41.9**	NA	**15.4**	NA	**29.2**	NA	**51.8**	NA	**53.8**	NA	**37**	NA	**97.3**	NA
Chloride	meq/L	N/S	N/S	N/S	NA	NA	NA	NA	NA	NA	NA	NA	**7.3**	NA	**1.91**	NA	**3.95**	NA	**1.09**	NA	**2.65**	NA	**3.95**	NA	**0.559**	NA	**2.41**	NA	**5.98**	NA
Alkalinity (Sat. Paste)	meq/L	N/S	N/S	N/S	NA	NA	NA	NA	NA	NA	NA	NA	**3.3**	NA	**3.3**	NA	**2.1**	NA	**2**	NA	**1.3**	NA	**1.2**	NA	**0.5**	NA	**1**	NA	**1**	NA
Sulfate	meq/L	N/S	N/S	N/S	NA	NA	NA	NA	NA	NA	NA	NA	**1.41**	NA	**0.386**	NA	**0.297**	NA	**4.47**	NA	**0.752**	NA	**1.78**	NA	**1.69**	NA	**1.46**	NA	**1.9**	NA
Total Organic Carbon	mg/Kg-dry	N/S	N/S	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	N/S	N/S	6-9	NA	NA	NA	NA	NA	NA	NA	NA	**7.93**	NA	**7.66**	NA	**7.49**	NA	**6.76**	NA	**6.04**	NA	**6.46**	NA	**6.36**	NA	**6.5**	NA	**6.54**	NA
SPLP Metals																														
SPLP Arsenic	mg/L	N/S	0.2	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Barium	mg/L	N/S	40	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Cadmium	mg/L	N/S	0.1	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Zinc	mg/L	N/S	220	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals (Wet Weight)																														
Arsenic	mg/Kg	12	100	10	**1.94**	**2.38**	**3.16**	NA	NA	**3.26**	**4.24**	NA	NA	NA	NA	NA	NA	NA	**4.96**	**5.55**	**3.24**	**3.17**	**3.46**	**5.03**	**4.7**	**4.22**	**6.74**	**8.4**	**4.96**	**5.57**
Barium	mg/Kg	550	2000	N/S	**99**	**120**	**78**	NA	NA	**104**	**131**	NA	NA	NA	NA	NA	NA	NA	**145**	**106**	**117**	**122**	**119**	**129**	**127**	**126**	**138**	**160**	**109**	**138**
True Total Barium	mg/Kg-dry	N/S	N/S	20,000	**299**	**311**	**319**	NA	NA	**440**	**381**	NA	NA	NA	NA	NA	NA	NA	<500	**207**	<500	**288**	<500	**281**	<500	**251**	<500	**288**	<500	**275**
Cadmium	mg/Kg	3.9	20	10	<0.242	<0.253	**0.206**	NA	NA	**0.264**	**0.318**	NA	NA	NA	NA	NA	NA	NA	**0.618**	**0.335**	<0.200	<0.264	**0.261**	**0.351**	**0.256**	<0.342	<0.200	<0.354	**0.241**	**0.394**
Chromium	mg/Kg	12000	100	500	**8.7**	**8.5**	**5.1**	NA	NA	**9.1**	**10**	NA	NA	NA	NA	NA	NA	NA	**11.2**	**6.42**	**10.6**	**7.6**	**10.8**	**8.4**	**14.4**	**9.8**	**12.1**	**7.7**	**9.79**	**6.9**
Lead	mg/Kg	400	100	500	**8.1**	**9.2**	**5.5**	NA	NA	**9.3**	**11.3**	NA	NA	NA	NA	NA	NA	NA	**10.5**	**8.4**	**9.05**	**8.6**	**10.2**	**9.6**	**12.3**	**10.3**	**9.85**	**9.2**	**8.78**	**8.3**
Mercury	mg/Kg	2.3	4	10	**0.058**	<0.055	<0.037	NA	NA	<0.047	<0.01	NA	NA	NA	NA	NA	NA	NA	**0.0429**	<0.063	**0.0351**	<0.056	**0.0345**	<0.06	**0.0527**	<0.072	**0.0405**	<0.0718	**0.0371**	<0.075
Selenium	mg/Kg	39	20	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1.00	<2.68	<1.00	<2.11	<1.00	<2.2	<1.00	<2.74	<1.00	<2.83	<1.00	<2.76
Silver	mg/Kg	39	100	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.500	NA	<0.500	NA	<0.500	NA	<0.500	NA	<0.500	NA	<0.500	NA
Strontium	mg/Kg	N/S	N/S	N/S	**22.4**	**23.9**	**19.2**	NA	NA	**20.9**	**26**	NA	NA	NA	NA	NA	NA	NA	NA	**21**	NA	**22.6**	NA	**25**	NA	**26.6**	NA	**26.6**	NA	**24.8**
Zinc	mg/Kg	2300	2800	500	**35.8**	**33.5**	**20.1**	NA	NA	**36**	**37.2**	NA	NA	NA	NA	NA	NA	NA	**52.8**	**33.6**	**27.7**	**28.1**	**39.1**	**37**	**47.4**	**40.4**	**43.9**	**38.1**	**40.6**	**36.7**
Hydrocarbons																														
Oil & Grease	dry wt %	65	N/S	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.079	NA	<0.075	NA	<0.094	NA	<0.074	NA	<0.070	NA	<0.087	NA
TPH-DRO (>C10-C28)	mg/Kg	180	65	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<50	NA	<50	NA	<50	NA	**261**	NA	<50	NA	<50
TPH-ORO (>C28-C35)	mg/Kg	N/S	10000	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**84.5**	NA	**110**	NA	**119**	NA	**325**	NA	**97.6**	NA	**102**
Aliphatic C6-C8	mg/Kg	1,200	10000	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<15.0	NA	<15.0	NA	<15.0	NA	<15.0	NA	<15.0	NA	<15.0	NA
Aliphatic >C8-C10	mg/Kg	120	5300	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<15.0	NA	<15.0	NA	<15.0	NA	<15.0	NA	<15.0	NA	<15.0	NA
Aliphatic >C10-C12	mg/Kg	230	10000	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<15.0	NA	<15.0	NA	<15.0	NA	<15.0	NA	<15.0	NA	<15.0	NA
Aliphatic >C12-C16	mg/Kg	370	10000	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<10.0	NA	<10.0	NA	<10.0	NA	<10.0	NA	<10.0	NA	<10.0	NA
Aliphatic >C16-C35	mg/Kg	7,100	10000	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**23.8**	NA	**27**	NA	**17.4**	NA	**21.8**	NA	**31.7**	NA	**23.6**	NA
Aromatic >C8-C10	mg/Kg	65	65	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<15.9	NA	<10.0	NA	<10.0	NA	<10.0	NA	<10.0	NA	<10.0	NA
Aromatic >C10-C12	mg/Kg	120	100	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<15.9	NA	<10.0	NA	<10.0	NA	<10.0	NA	<10.0	NA	<10.0	NA
Aromatic >C12-C16	mg/Kg	180	200	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<23.8	NA	<15.0	NA	<15.0	NA	<15.0	NA	<15.0	NA	<15.0	NA
Aromatic >C16-C21	mg/Kg	150	2100	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<23.8	NA	<15.0	NA	<15.0	NA	<15.0	NA	<15.0	NA	<15.0	NA
Aromatic >C21-C35	mg/Kg	180	10000	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<23.8	NA	<15.0	NA	**16.6**	NA	**16.1**	NA	**15.6**	NA	<15.0	NA
Total TPH (C6-C35)	mg/Kg	N/S	N/S	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**37.7**	NA	**27**	NA	**34**	NA	**37.9**	NA	**47.3**	NA	**23.6**	NA
PAHs																														
2-Methylnaphthalene	mg/Kg	22	1.7	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/Kg	370	220	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	mg/Kg	350	88	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/Kg	2,200	120	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/Kg	0.62	330	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	mg/Kg	0.33	23	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	mg/Kg	0.62	220	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	mg/Kg	6.2	120	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/Kg	62	76	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	mg/Kg	0.33	540	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/Kg	220	1200	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	mg/Kg	280	230	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	mg/Kg	0.62	9.2	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/Kg	6.2	1.5	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/Kg	2,100	660	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/Kg	230	1100	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
[1] - Primary moisture value was reported by one lab and used for all wet/dry conversions. If multiple labs reported a moisture value the Primary moisture was used for the metals conversion
[2] - Secondary moisture value was reported by a separate lab.
ICON metals converted to wet weight.
Bolded values were detected in the sample
Highlight indicates exceedance of corresponding regulatory standard.
< - Not detected at or above the reporting limit shown
NA - Not analyzed, NS - No Standard

Table 4
Soil and Sediment Analytical Data
Jeanerette Lumber Shingle Co., LLC v. ConocoPhillips Company, et al.
Bayou Pigeon Oil Gas Field
Iberia Parish, Louisiana

Sample ID					JLS-20								JLS-21				JLS-22				JLS-23								SB-1					
Location Name					Area 1								Area 2				Area 2				Area 2								Area 2					
Location Description					Canal Sediment								Canal Sediment				Canal Sediment				Canal Sediment								Canal Sediment					
Sample Date					8/10/2020								9/8/2020				9/8/2020				9/8/2020		9/8/2020		2/2/2021				1/13/2021					
Interval (ft)					0-2		2-4		4-6		6-7		0-2		2-4		0-2		2-4		0-2		2-4		0-2		2-3.5		0-2		2-4		4-6	
Parameters	**Units**	**RECAP SOIL_ Ssni**	**RECAP SOIL_ SSGW**	**29-B Submerged Wet.**	HET	ICON	HET	ICON	HET	ICON	HET	ICON	HET	ICON	HET	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	HET	ICON	HET	ICON	HET	ICON
Salts																																		
% Moisture Primary[1]	%	N/S	N/S	N/S	**67.8**	**66.7**	**65.2**	**64.6**	**63.9**	**64**	**54**	**44.8**	**56.4**	**53.4**	**50.3**	**49.5**	**38.7**	**44.2**	**38**	**39.7**	**66.7**	**63.6**	**69.3**	**70.9**	**54.8**	**55.4**	**62.9**	**61.0**	**80.2**	**79.4**	**69.5**	**73.8**	**70.1**	**68.2**
% Moisture Secondary[2]	%	N/S	N/S	N/S	**68**	NA	**65**	NA	**64.4**	NA	**50.2**	NA	**58**	NA	**59.3**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
% Saturation	%	N/S	N/S	N/S	**89.5**	NA	**95.7**	NA	**102**	NA	**92.9**	NA	**163**	NA	**207**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**98.9**	NA	**115**	NA	**161**	NA
Cation Exchange Capacity (CEC)	meq/100g	N/S	N/S	N/S	**50**	**55.9**	**53.5**	**53**	NA	**58.9**	NA	**33.3**	**62.2**	NA	**58.3**	**56.4**	**46**	**58.7**	**49.5**	NA	**75.4**	**73.4**	**76.9**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Electrical Conductivity	mmhos/cm	N/S	N/S	N/S	**1.29**	**1.88**	**1.44**	**2.32**	**1.4**	**2.06**	**1.35**	**1.2**	**3.21**	**4.35**	**4.34**	**6.12**	**1.25**	**1.29**	**2.27**	**3.3**	**1.45**	**1.42**	**3.73**	<0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Exchangeable Sodium Percentage	%	N/S	N/S	N/S	**0.812**	**1.11**	**1.24**	**1.46**	NA	**1.73**	NA	**3.25**	**14.7**	NA	**13.2**	**16.2**	**8.7**	**3.81**	**9.97**	NA	**2.53**	**1.84**	**9.65**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium Adsorption Ratio	Calc	N/S	N/S	N/S	**2.56**	**1.58**	**3.69**	**2.41**	NA	**2.97**	NA	**2.91**	**19.9**	**18.3**	**37.5**	**25**	**6.6**	**5.52**	**9.25**	**13.6**	**4.1**	**3.99**	**13.8**	**15.6**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soluble Calcium	meq/L	N/S	N/S	N/S	**5.46**	**7.6**	**5.35**	**8.34**	**4.34**	**6.03**	**4.04**	**2.97**	**2.6**	**3.01**	**2.37**	**3.59**	**1.3**	**1.83**	**2.32**	**2.94**	**2.77**	**2.96**	**3.24**	**4.02**	NA	NA	NA	NA	**71.6**	NA	**133**	NA	**141**	NA
Soluble Magnesium	meq/L	N/S	N/S	N/S	**2.02**	**3.22**	**1.97**	**3.64**	**1.55**	**2.94**	**1.67**	**1.53**	**0.826**	**1.48**	**0.832**	**1.85**	**0.78**	**0.96**	**1.24**	**1.49**	**1.42**	**1.42**	**1.63**	**1.96**	NA	NA	NA	NA	**34.9**	NA	**55.7**	NA	**67.3**	NA
Soluble Sodium	meq/L	N/S	N/S	N/S	**4.96**	**3.68**	**7.06**	**5.9**	**7.26**	**6.29**	**8.28**	**4.37**	**26.1**	**27.4**	**47.5**	**41.3**	**6.73**	**6.52**	**12.3**	**20.2**	**5.94**	**5.91**	**21.5**	**26.9**	NA	NA	NA	NA	**129**	NA	**257**	NA	**287**	NA
SPLP Chloride	mg/L	N/S	5000	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Sodium	mg/L	N/S	1500	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
29-B Leachate Chloride	mg/L	N/S	N/S	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	mg/Kg	N/S	N/S	N/S	**51.5**	NA	**77.3**	NA	**94.4**	NA	**95.3**	NA	**578**	NA	**906**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**1380**	NA	**4560**	NA	**6370**	NA
Chloride	meq/L	N/S	N/S	N/S	**5.23**	NA	**7.78**	NA	**7.83**	NA	**7.64**	NA	**27.2**	NA	**38.2**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**254**	NA	**488**	NA	**539**	NA
Alkalinity (Sat. Paste)	meq/L	N/S	N/S	N/S	**5.8**	NA	**4**	NA	**3.8**	NA	**2.4**	NA	**1.2**	NA	**1.6**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.2**	NA	**0.9**	NA	**0.8**	NA
Sulfate	meq/L	N/S	N/S	N/S	**1.06**	NA	**1.01**	NA	**0.889**	NA	**2.36**	NA	**1.12**	NA	**0.643**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**3.33**	NA	<2.00	NA	**2.69**	NA
Total Organic Carbon	mg/Kg-dry	N/S	N/S	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**25500**	NA	**82600**	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	N/S	N/S	6-9	**7.18**	NA	**7.39**	NA	**7.32**	NA	**7.35**	NA	**7.75**	NA	**7.85**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**6.77**	NA	**7.49**	NA	**7.16**	NA
SPLP Metals																																		
SPLP Arsenic	mg/L	N/S	0.2	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.0012**	NA	**0.0012**	NA	NA	NA	NA	NA	NA	NA
SPLP Barium	mg/L	N/S	40	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.063**	NA	**0.067**	NA	NA	NA	NA	NA	NA	NA
SPLP Cadmium	mg/L	N/S	0.1	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Zinc	mg/L	N/S	220	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals (Wet Weight)																																		
Arsenic	mg/Kg	12	100	10	**2.74**	**2.63**	**3.06**	**3**	**3.06**	**3.03**	**3.82**	**4.44**	**2.09**	**2.2**	**3.37**	**2.71**	**3.05**	**3.21**	**3.15**	**6.2**	**2.29**	**1.87**	**3.85**	**4.6**	NA	**2.89**	NA	**1.56**	NA	NA	<2.00	**1.33**	NA	NA
Barium	mg/Kg	550	2000	N/S	**257**	**254**	**198**	**247**	**216**	**256**	**239**	**204**	**110**	**136**	**134**	**141**	**162**	**157**	**139**	**160**	**178**	**115**	**302**	**260**	NA	**186**	NA	**178**	**56.5**	**66**	**200**	**143**	**103**	**213**
True Total Barium	mg/Kg-dry	N/S	N/S	20,000	**1170**	**1220**	**803**	**1010**	**874**	**1010**	**670**	**462**	<500	<935	<500	<988	<198	<930	<198	<951	<198	<976	**1180**	**1400**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	mg/Kg	3.9	20	10	<0.200	**0.181**	**0.211**	<0.174	**0.203**	**0.23**	<0.200	<0.272	<0.200	<0.56	<0.200	<0.63	<1.24	<0.68	<1.22	<0.71	<1.22	<0.44	<1.22	<0.36	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	mg/Kg	12000	100	500	**7.44**	**5.6**	**8.88**	**6.9**	**9.11**	**7.1**	**7.53**	**6.2**	**11.6**	**8**	**14.4**	**8.7**	**14**	**10.4**	**12.4**	**11.8**	**5.74**	**7.6**	**5.73**	**4.9**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/Kg	400	100	500	**6.97**	**7.6**	**7.85**	**7.9**	**8.43**	**7.8**	**8.37**	**8.1**	**7.59**	**9.5**	**8.51**	**10**	**11.8**	**12.2**	**11.1**	**13.4**	**6.9**	**9.8**	**8.8**	**7.4**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	mg/Kg	2.3	4	10	**0.0287**	<0.034	**0.0264**	<0.038	**0.0251**	<0.037	**0.0246**	<0.059	**0.0249**	<0.049	**0.0192**	<0.0469	<0.107	<0.058	<0.104	<0.0557	<0.106	<0.04	<0.0944	<0.032	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/Kg	39	20	10	<1.00	<1.23	<1.00	<1.39	<1.00	<1.36	<1.00	<2.17	<1.00	<4.49	<1.00	<5.03	<9.90	<5.39	<9.76	<5.64	<9.78	<3.48	<9.77	<2.88	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	mg/Kg	39	100	200	<0.500	NA	<0.500	NA	<0.500	NA	<0.500	NA	<0.500	NA	<0.500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Strontium	mg/Kg	N/S	N/S	N/S	NA	**22.4**	NA	**23**	NA	**24**	NA	**27.9**	NA	**56**	NA	**52**	**37.2**	**37.6**	**32.9**	**43**	**28.1**	**32.3**	**41.7**	**39**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/Kg	2300	2800	500	**28.8**	**27.9**	**32.5**	**31.4**	**32**	**31.9**	**30.7**	**31.2**	**42.8**	**37.6**	**50**	**37.7**	**53.6**	**41.5**	**51**	**48.1**	**28.5**	**48**	**23.6**	**20**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hydrocarbons																																		
Oil & Grease	dry wt %	65	N/S	1	<0.156	NA	<0.143	NA	<0.140	NA	<0.100	NA	<0.119	NA	<0.122	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH-DRO (>C10-C28)	mg/Kg	180	65	N/S	NA	**238**	NA	**193**	NA	**173**	NA	**99**	NA	<50	NA	<50	NA	<50	NA	<10	NA	**71.7**	NA	**110**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH-ORO (>C28-C35)	mg/Kg	N/S	10000	N/S	NA	**294**	NA	**260**	NA	**230**	NA	**198**	NA	<50	NA	<50	NA	<50	NA	<10	NA	**96.8**	NA	**106**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aliphatic C6-C8	mg/Kg	1,200	10000	N/S	<15.0	NA	<15.0	NA	<15.0	NA	<15.0	NA	<15.0	NA	<15.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aliphatic >C8-C10	mg/Kg	120	5300	N/S	<15.0	NA	<15.0	NA	<15.0	NA	<15.0	NA	<15.0	NA	<15.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aliphatic >C10-C12	mg/Kg	230	10000	N/S	<15.0	NA	<15.0	NA	<15.0	NA	<15.0	NA	<15.0	NA	<15.0	NA	<2.99	NA	<6.00	NA	<3.00	NA	<5.98	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aliphatic >C12-C16	mg/Kg	370	10000	N/S	**17.9**	NA	<10.0	NA	<10.0	NA	<10.0	NA	<10.0	NA	<10.0	NA	<2.99	NA	<6.00	NA	<3.00	NA	<5.98	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aliphatic >C16-C35	mg/Kg	7,100	10000	N/S	**49.8**	NA	<10.0	NA	**23.3**	NA	**17.7**	NA	<10.0	NA	**16.8**	NA	<2.99	NA	<6.00	NA	**10.9**	NA	<5.98	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aromatic >C8-C10	mg/Kg	65	65	N/S	<10.0	NA	<10.0	NA	<10.0	NA	<10.0	NA	<10.0	NA	<10.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aromatic >C10-C12	mg/Kg	120	100	N/S	<10.0	NA	<10.0	NA	<10.0	NA	<10.0	NA	<10.0	NA	<10.0	NA	<2.99	NA	<6.00	NA	<3.00	NA	<5.98	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aromatic >C12-C16	mg/Kg	180	200	N/S	<15.0	NA	<15.0	NA	<15.0	NA	<15.0	NA	<15.0	NA	<15.0	NA	<2.99	NA	<6.00	NA	<3.00	NA	<5.98	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aromatic >C16-C21	mg/Kg	150	2100	N/S	<15.0	NA	<15.0	NA	<15.0	NA	<15.0	NA	<15.0	NA	<15.0	NA	<2.99	NA	<6.00	NA	<3.00	NA	<5.98	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aromatic >C21-C35	mg/Kg	180	10000	N/S	<15.0	NA	<15.0	NA	<15.0	NA	<15.0	NA	<15.0	NA	**15**	NA	<2.99	NA	<6.00	NA	<3.00	NA	**9.42**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total TPH (C6-C35)	mg/Kg	N/S	N/S	N/S	**67.7**	NA	<15.0	NA	**23.3**	NA	**17.7**	NA	<15.0	NA	**31.8**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PAHs																																		
2-Methylnaphthalene	mg/Kg	22	1.7	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/Kg	370	220	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	mg/Kg	350	88	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/Kg	2,200	120	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/Kg	0.62	330	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	mg/Kg	0.33	23	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	mg/Kg	0.62	220	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	mg/Kg	6.2	120	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/Kg	62	76	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	mg/Kg	0.33	540	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/Kg	220	1200	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	mg/Kg	280	230	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	mg/Kg	0.62	9.2	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/Kg	6.2	1.5	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/Kg	2,100	660	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/Kg	230	1100	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
[1] - Primary moisture value was reported by one lab and used for all wet/dry conversions. If multiple labs reported a moisture value the Primary moisture was used for the metals conversion
[2] - Secondary moisture value was reported by a separate lab.
ICON metals converted to wet weight.
Bolded values were detected in the sample
Highlight indicates exceedance of corresponding regulatory standard.
< - Not detected at or above the reporting limit shown
NA - Not analyzed, NS - No Standard

Table 4
Soil and Sediment Analytical Data
Jeanerette Lumber Shingle Co., LLC v. ConocoPhillips Company, et al.
Bayou Pigeon Oil Gas Field
Iberia Parish, Louisiana

Sample ID					SB-2						SB-3						SB-4						MW-1				MW-2			MW-3		
Location Name					Area 2						Area 2						Area 2						Area 2				Area 2			Area 2		
Location Description					Canal Sediment						Canal Sediment						Soil						Canal Sediment				Canal Sediment			Canal Sediment		
Sample Date					1/13/2021						1/13/2021						3/1/2021						2/5/2021				2/5/2021			2/4/2021		
Interval (ft)					0-2		2-4		4-6		0-2		2-4		4-6		8-10'		10-12'		14-16'	20-22'	0-2	2-4		24-26	0-2	2-4		0-2	2-4	24-26
Parameters	**Units**	**RECAP SOIL_ Ssni**	**RECAP SOIL_ SSGW**	**29-B Submerged Wet.**	HET	ICON	HET	ICON	HET	ICON	HET	ICON	HET	ICON	HET	ICON	HET	ICON	HET	ICON	HET	HET	ERM	ERM	ICON	ERM	ERM	ERM	ICON	ERM	ERM	ERM
Salts																																
% Moisture Primary[1]	%	N/S	N/S	N/S	**80.5**	**81.2**	**73.9**	**73.5**	**72.6**	**70.6**	**59.4**	**70.6**	**27.9**	**37.7**	**69.8**	**61.9**	**67.6**	**62.6**	**80.0**	**72.9**	**68.0**	**62.5**	**55.6**	**58.6**	**57.7**	**22.0**	**54.9**	**51.4**	**44.2**	**57.9**	**62.5**	**25.2**
% Moisture Secondary[2]	%	N/S	N/S	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
% Saturation	%	N/S	N/S	N/S	**98.7**	NA	**96.5**	NA	**139**	NA	**66.1**	NA	**52.8**	NA	**122**	NA	**165**	NA	**192**	NA	**144**	**140**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cation Exchange Capacity (CEC)	meq/100g	N/S	N/S	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Electrical Conductivity	mmhos/cm	N/S	N/S	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**7.19**	**11.5**	**11.7**	**13.8**	**9.80**	**5.96**	NA	NA	NA	NA	NA	NA	**2.97**	NA	NA	NA
Exchangeable Sodium Percentage	%	N/S	N/S	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium Adsorption Ratio	Calc	N/S	N/S	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soluble Calcium	meq/L	N/S	N/S	N/S	**52.8**	NA	**101**	NA	**117**	NA	**24.1**	NA	**13.9**	NA	**86.1**	NA	**14.3**	NA	**28.2**	NA	**30.7**	**15.5**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soluble Magnesium	meq/L	N/S	N/S	N/S	**26.4**	NA	**47.9**	NA	**61.6**	NA	**10.7**	NA	**6.12**	NA	**43.1**	NA	**8.98**	NA	**18.1**	NA	**16.4**	**10.4**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soluble Sodium	meq/L	N/S	N/S	N/S	**123**	NA	**277**	NA	**432**	NA	**48.8**	NA	**62**	NA	**278**	NA	**39.2**	NA	**62.1**	NA	**45.0**	**25.4**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Chloride	mg/L	N/S	5000	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Sodium	mg/L	N/S	1500	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
29-B Leachate Chloride	mg/L	N/S	N/S	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	mg/Kg	N/S	N/S	N/S	**1430**	NA	**4550**	NA	**9240**	NA	**579**	NA	**602**	NA	**8440**	NA	**1510**	NA	**1980**	NA	**1450**	**929**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	meq/L	N/S	N/S	N/S	**215**	NA	**453**	NA	**654**	NA	**86.9**	NA	**90.5**	NA	**415**	NA	**67.0**	NA	**116**	NA	**95.4**	**55.8**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity (Sat. Paste)	meq/L	N/S	N/S	N/S	**0.8**	NA	**0.8**	NA	**0.6**	NA	**2.1**	NA	**1.6**	NA	**2.2**	NA	**1.8**	NA	**1.3**	NA	**1.4**	**1.6**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	meq/L	N/S	N/S	N/S	**2.98**	NA	<2.00	NA	<5.00	NA	**2.07**	NA	**0.972**	NA	<2.00	NA	**1.01**	NA	**2.18**	NA	**2.60**	**2.37**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	mg/Kg-dry	N/S	N/S	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	N/S	N/S	6-9	**6.91**	NA	**6.79**	NA	**7.08**	NA	**8.02**	NA	**8.16**	NA	**7.78**	NA	**8.04**	NA	**7.41**	NA	**7.81**	**7.97**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Metals																																
SPLP Arsenic	mg/L	N/S	0.2	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Barium	mg/L	N/S	40	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Cadmium	mg/L	N/S	0.1	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Zinc	mg/L	N/S	220	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals (Wet Weight)																																
Arsenic	mg/Kg	12	100	10	NA	NA	<2.00	**1.85**	**2.19**	NA	NA	NA	**2.93**	**2.88**	NA	NA	NA	NA	NA	NA	NA	NA	**3.28**	**3.17**	**2.89**	**3.11**	**2.31**	**1.78**	**2.77**	**0.98**	**2.3**	**1.33**
Barium	mg/Kg	550	2000	N/S	**47.5**	**118**	**78.8**	**75**	**123**	**136**	**92.5**	**84**	**73.1**	**140**	**57.3**	**122**	NA	NA	NA	NA	NA	NA	**104**	**104**	**146**	**45.3**	**108**	**112**	NA	**99.9**	**91.5**	**38.9**
True Total Barium	mg/Kg-dry	N/S	N/S	20,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	mg/Kg	3.9	20	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	mg/Kg	12000	100	500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/Kg	400	100	500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	mg/Kg	2.3	4	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/Kg	39	20	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	mg/Kg	39	100	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Strontium	mg/Kg	N/S	N/S	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/Kg	2300	2800	500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hydrocarbons																																
Oil & Grease	dry wt %	65	N/S	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH-DRO (>C10-C28)	mg/Kg	180	65	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**11.4**	NA	NA	NA	NA	NA	NA	NA
TPH-ORO (>C28-C35)	mg/Kg	N/S	10000	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**11.7**	NA	NA	NA	NA	NA	NA	NA
Aliphatic C6-C8	mg/Kg	1,200	10000	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<52.3	<55.6	NA	<33.6	<53.5	<51.1	NA	<60.8	<54.4	<32.8
Aliphatic >C8-C10	mg/Kg	120	5300	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<52.3	<55.6	NA	<33.6	<53.5	<51.1	NA	<60.8	<54.4	<32.8
Aliphatic >C10-C12	mg/Kg	230	10000	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5.88	<6	NA	<6	<5.83	<6	NA	<6	<5.83	<6
Aliphatic >C12-C16	mg/Kg	370	10000	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5.88	<6	NA	<6	<5.83	<6	NA	<6	<5.83	<6
Aliphatic >C16-C35	mg/Kg	7,100	10000	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5.88	<6	NA	<6	<5.83	**10.9**	NA	<6	<5.83	<6
Aromatic >C8-C10	mg/Kg	65	65	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<53.1	<54.2	NA	<33.6	<41.5	<52.2	NA	<52	<56	<42.3
Aromatic >C10-C12	mg/Kg	120	100	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5.88	<6	NA	<6	<5.83	<6	NA	<6	<5.83	<6
Aromatic >C12-C16	mg/Kg	180	200	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5.88	<6	NA	<6	<5.83	<6	NA	<6	<5.83	<6
Aromatic >C16-C21	mg/Kg	150	2100	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5.88	<6	NA	<6	<5.83	<6	NA	<6	<5.83	<6
Aromatic >C21-C35	mg/Kg	180	10000	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5.88	<6	NA	<6	<5.83	<6	NA	<6	<5.83	<6
Total TPH (C6-C35)	mg/Kg	N/S	N/S	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PAHs																																
2-Methylnaphthalene	mg/Kg	22	1.7	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00328	<0.00330	NA	<0.00326	<0.00324	<0.00330	NA	<0.00326	<0.00326	<0.00326
Acenaphthene	mg/Kg	370	220	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00656	<0.00660	NA	<0.00651	<0.00647	<0.00660	NA	<0.00651	<0.00651	<0.00651
Acenaphthylene	mg/Kg	350	88	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00656	<0.00660	NA	<0.00651	<0.00647	<0.00660	NA	<0.00651	<0.00651	<0.00651
Anthracene	mg/Kg	2,200	120	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00328	<0.00330	NA	<0.00326	<0.00324	<0.00330	NA	<0.00326	<0.00326	<0.00326
Benzo(a)anthracene	mg/Kg	0.62	330	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00656	<0.00660	NA	<0.00651	<0.00647	<0.00660	NA	<0.00651	<0.00651	<0.00651
Benzo(a)pyrene	mg/Kg	0.33	23	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00328	<0.00330	NA	<0.00326	**0.00407**	<0.00330	NA	<0.00326	<0.00326	<0.00326
Benzo(b)fluoranthene	mg/Kg	0.62	220	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00656	<0.00660	NA	<0.00651	<0.00647	<0.00660	NA	<0.00651	<0.00651	<0.00651
Benzo(k)fluoranthene	mg/Kg	6.2	120	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00328	<0.00330	NA	<0.00326	**0.00562**	<0.00330	NA	<0.00326	<0.00326	<0.00326
Chrysene	mg/Kg	62	76	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00656	<0.00660	NA	<0.00651	<0.00647	<0.00660	NA	<0.00651	<0.00651	<0.00651
Dibenz(a,h)anthracene	mg/Kg	0.33	540	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00656	<0.00660	NA	<0.00651	<0.00647	<0.00660	NA	<0.00651	<0.00651	<0.00651
Fluoranthene	mg/Kg	220	1200	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00328	<0.00330	NA	<0.00326	<0.00324	<0.00330	NA	<0.00326	<0.00326	<0.00326
Fluorene	mg/Kg	280	230	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00328	<0.00330	NA	<0.00326	<0.00324	<0.00330	NA	<0.00326	<0.00326	<0.00326
Indeno(1,2,3-cd)pyrene	mg/Kg	0.62	9.2	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00328	<0.00330	NA	<0.00326	**0.00551**	<0.00330	NA	<0.00326	<0.00326	<0.00326
Naphthalene	mg/Kg	6.2	1.5	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00328	<0.00330	NA	<0.00326	<0.00324	<0.00330	NA	<0.00326	<0.00326	<0.00326
Phenanthrene	mg/Kg	2,100	660	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00328	<0.00330	NA	<0.00326	<0.00324	<0.00330	NA	<0.00326	<0.00326	<0.00326
Pyrene	mg/Kg	230	1100	N/S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00328	<0.00330	NA	<0.00326	<0.00324	<0.00330	NA	<0.00326	<0.00326	<0.00326

Notes:
[1] - Primary moisture value was reported by one lab and used for all wet/dry conversions. If multiple labs reported a moisture value the Primary moisture was used for the metals conversion
[2] - Secondary moisture value was reported by a separate lab.
ICON metals converted to wet weight.
Bolded values were detected in the sample
Highlight indicates exceedance of corresponding regulatory standard.
< - Not detected at or above the reporting limit shown
NA - Not analyzed, NS - No Standard

Table 5
Soil Geotechnical Data
Jeanerette Lumber v. ConocoPhillips Company, et al.
Bayou Pigeon Oil Gas Field
Iberia Parish, Louisiana

		Location ID	**JLS-2**	
		Depth Interval	42-44'	43-44'
		Sample Date	2/22/2021	2/22/2021
		Sampler	ERM	ERM
Parameters	**Unit**	**Analytical Method**		
Grain Size				
Clay	%	ASTM D422	NA	49.2
Silt	%	ASTM D423	NA	49.7
Sand	%	ASTM D424	NA	1.2
Gravel	%	ASTM D425	NA	0
Moisture Content of Soil	%	ASTM D2216	35.4	35.2
Dry Density	lbs/ft^3	-	40.3	NA
Permeability	cm/sec	ASTM D5084	8.3×10^{-8}	NA
Classification	-	ASTM D4318	Gray clay	Gray Fat Clay (CH)

Notes:
lbs/ft3 - pounds per cubic foot
cm/sec - centimeters per second
NA - Not analyzed

Table 6

Groundwater Analytical Data

Jeanerette Lumber v. ConocoPhillips Company, et al.

Bayou Pigeon Oil Gas Field

Iberia Parish, Louisiana

			Well Identifier	JLS-10		JLS-11		JLS-14	
			Screened Depth Interval (feet BGS):	26-36'		27-37'		43-48'	
			Sample Date:	7/30/2020		7/30/2020		8/5/2020	
Parameters	**Units**	**MO-1 DW3 (No DAF)**	**EPA SMCL**	ERM	ICON	ERM	ICON	HET	ICON
Total Metals									
Arsenic	mg/L	0.05	NS	**0.079**	NA	**0.095**	**0.108**	**0.34**	NA
Barium	mg/L	2	NS	**0.46**	NA	**70.8**	**77.2**	**0.39**	NA
Cadmium	mg/L	0.01	NS	<0.0010	NA	<0.025	<0.0500	<0.0010	NA
Calcium	mg/L	NS	NS	**109**	NA	**4260**	**4230**	**67.8**	NA
Chromium	mg/L	0.05	NS	<0.0010	NA	<0.10	<0.100	**0.0024**	NA
Iron	mg/L	NS	0.3	**15.1**	NA	**353**	**424**	**9.15**	NA
Lead	mg/L	0.05	NS	<0.0010	NA	<0.025	<0.100	**0.004**	NA
Magnesium	mg/L	NS	NS	**36.7**	NA	**1270**	**1320**	**22.4**	NA
Manganese	mg/L	NS	0.05	**0.45**	NA	**15.6**	**17.4**	**0.25**	NA
Mercury	mg/L	0.002	NS	<0.00020	NA	<0.00020	<0.00020	<0.00020	NA
Potassium	mg/L	NS	NS	**5.25**	NA	**39.1**	**57**	**5.58**	NA
Selenium	mg/L	0.05	NS	NA	NA	NA	NA	<0.0010	NA
Silver	mg/L	0.13	NS	NA	NA	NA	NA	<0.0010	NA
Sodium	mg/L	NS	NS	**304**	NA	**16700**	**18300**	**205**	NA
Strontium	mg/L	NS	NS	**0.69**	NA	**53.8**	**60.7**	**0.48**	NA
Zinc	mg/L	5	NS	**0.27**	NA	<1.10	**0.139**	**0.021**	NA
Dissolved Metals									
Arsenic	mg/L	0.05	NS	**0.075**	**0.0212**	**0.1**	NA	**0.36**	**0.35**
Barium	mg/L	2	NS	**0.4**	**0.233**	**66.1**	NA	**0.37**	**0.395**
Cadmium	mg/L	0.01	NS	<0.0010	<0.005	<0.025	NA	<0.0010	**0.013**
Calcium	mg/L	NS	NS	NA	**95**	NA	NA	**69.8**	**69.8**
Chromium	mg/L	0.05	NS	<0.0010	<0.0100	<0.10	NA	<0.0010	<0.0100
Iron	mg/L	NS	0.3	NA	**0.892**	NA	NA	**7.28**	**7.59**
Lead	mg/L	0.05	NS	<0.0010	<0.0100	<0.025	NA	<0.0010	<0.0100
Magnesium	mg/L	NS	NS	NA	**34.3**	NA	NA	**21.4**	**22.8**
Manganese	mg/L	NS	0.05	NA	**0.449**	NA	NA	**0.25**	**0.257**
Mercury	mg/L	0.002	NS	<0.00020	<0.00020	<0.00020	NA	<0.00020	<0.000200
Potassium	mg/L	NS	NS	NA	**5.89**	NA	NA	**5.74**	**7.59**
Selenium	mg/L	0.05	NS	NA	NA	NA	NA	<0.0010	NA
Silver	mg/L	0.13	NS	NA	NA	NA	NA	<0.0010	NA
Sodium	mg/L	NS	NS	NA	**261**	NA	NA	**207**	**200**
Strontium	mg/L	NS	NS	**0.63**	**0.643**	**48.3**	NA	**0.49**	**0.518**
Zinc	mg/L	5	NS	**0.23**	**0.162**	<1.10	NA	<0.020	<0.0100
Anions									
Bromide	mg/L	NS	NS	NA	NA	NA	NA	**0.319**	NA
Chloride	mg/L	NS	250	**280**	**287**	**42700**	**41800**	**188**	**171**
Sulfate	mg/L	NS	250	**1.68**	**1.19**	<100	<50.0	<0.200	<0.250
Alkalinity									
Bicarbonate Alkalinity	mg/L	NS	NS	**654**	**612**	**283**	**218**	**527**	**508**
Carbonate Alkalinity	mg/L	NS	NS	<1.0	<10.0	<1.0	<10.0	<1.0	<10.0
Total Alkalinity	mg/L	NS	NS	NA	**612**	NA	**218**	NA	**508**
Total Dissolved Solids (TDS)	mg/L	NS	500	**1130**	**1080**	**74100**	**71100**	**903**	**870**
Specific Conductivity	umhos/cm	NS	NS	NA	NA	NA	NA	**1331**	NA
BTEX Compounds									
Benzene	mg/L	0.0011	NS	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
Ethylbenzene	mg/L	2.4	NS	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
Toluene	mg/L	6.1	NS	**0.01**	**0.00966**	<0.00500	<0.00500	<0.00500	<0.0100
Xylene (total)	mg/L	10	NS	<0.015	<0.015	<0.01	<0.0150	<0.015	<0.0500
Hydrocarbon Fractions									
TPH-D	mg/L	1.0	NS	NA	**0.355**	NA	<0.127	NA	**0.303**
TPH-O	mg/L	1.0	NS	NA	**0.215**	NA	<0.117	NA	**0.197**
TPH-G	mg/L	1.3	NS	NA	<0.150	NA	**0.311**	NA	<0.150
Aliphatic C6-C8	mg/L	170	NS	**0.032**	NA	<0.030	NA	<0.030	NA
Aliphatic >C8-C10	mg/L	3.4	NS	<0.020	NA	<0.020	NA	<0.020	NA
Aliphatic >C10-C12	mg/L	3.4	NS	<0.100	NA	<0.100	NA	<0.100	NA
Aliphatic >C12-C16	mg/L	3.4	NS	<0.100	NA	<0.100	NA	<0.100	NA
Aliphatic >C16-C35	mg/L	67	NS	<0.150	NA	<0.150	NA	<0.150	NA
Aromatic >C8-C10	mg/L	1.3	NS	<0.030	NA	<0.030	NA	<0.030	NA
Unadjusted >C10-C12 Aromatics	mg/L	1.3	NS	<0.100	NA	<0.100	NA	<0.100	NA
Unadjusted >C12-C16 Aromatics	mg/L	1.3	NS	<0.100	NA	<0.100	NA	<0.100	NA
Unadjusted >C16-C21 Aromatics	mg/L	1.0	NS	<0.100	NA	<0.100	NA	<0.100	NA
Aromatic >C21-C35	mg/L	1.0	NS	<0.100	NA	<0.100	NA	<0.100	NA
Radium									
Radium 226	pCi/L	NS	NS	NA	NA	**4.31**	**55.2**	**0.173**	**0.452**
Radium 228	pCi/L	NS	NS	NA	NA	**32.7**	**49**	**1.07**	**1.07**
Radium 226+228	pCi/L	NS	NS	NA	NA	**37.01**	**104.2**	**1.243**	**1.522**
Total Dissolved Solids (TDS)	mg/L	NS	500	NA	NA	**68200**	NA	**723**	NA

Notes:

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< - Not detected at or above the reporting limit shown

NA - Not analyzed; NS - No Standard, NYR - Not Yet Received

Table 6

Groundwater Analytical Data

Jeanerette Lumber v. ConocoPhillips Company, et al.

Bayou Pigeon Oil Gas Field

Iberia Parish, Louisiana

			Well Identifier	JLS-17		MW-1		MW-2	
			Screened Depth Interval (feet BGS):	43-48'		23-28'		23-28'	
			Sample Date:	8/7/2020		2/9/2021		2/9/2021	
Parameters	**Units**	**MO-1 DW3 (No DAF)**	**EPA SMCL**	HET	ICON	ERM	ICON	ERM	ICON
Total Metals									
Arsenic	mg/L	0.05	NS	**0.44**	NA	**0.11**	**0.0937**	**0.10**	NA
Barium	mg/L	2	NS	**0.58**	NA	**1.68**	**1.45**	**0.71**	NA
Cadmium	mg/L	0.01	NS	<0.0010	NA	NA	<0.00500	NA	NA
Calcium	mg/L	NS	NS	**103**	NA	**360**	**321**	**148**	NA
Chromium	mg/L	0.05	NS	**0.003**	NA	NA	<0.0100	NA	NA
Iron	mg/L	NS	0.3	**13.7**	NA	**35.8**	**30.5**	**15.5**	NA
Lead	mg/L	0.05	NS	**0.0053**	NA	NA	<0.0100	NA	NA
Magnesium	mg/L	NS	NS	**35.3**	NA	**137**	**119**	**53.1**	NA
Manganese	mg/L	NS	0.05	**0.55**	NA	**1.51**	**1.38**	**0.64**	NA
Mercury	mg/L	0.002	NS	<0.00020	NA	NA	<0.000200	NA	NA
Potassium	mg/L	NS	NS	**7.96**	NA	**8.68**	**9.98**	**5.52**	NA
Selenium	mg/L	0.05	NS	<0.0010	NA	NA	<0.0200	NA	NA
Silver	mg/L	0.13	NS	<0.0010	NA	NA	NA	NA	NA
Sodium	mg/L	NS	NS	**215**	NA	**366**	**351**	**260**	NA
Strontium	mg/L	NS	NS	**0.72**	NA	**2.47**	**2.19**	**0.98**	NA
Zinc	mg/L	5	NS	<0.020	NA	NA	<0.0100	NA	NA
Dissolved Metals									
Arsenic	mg/L	0.05	NS	**0.39**	**0.449**	**0.091**	NA	**0.087**	**0.0902**
Barium	mg/L	2	NS	**0.45**	**0.495**	**1.52**	NA	**0.56**	**0.584**
Cadmium	mg/L	0.01	NS	<0.0010	**0.0131**	NA	NA	NA	<0.00500
Calcium	mg/L	NS	NS	**93.9**	**93.1**	NA	NA	NA	**128**
Chromium	mg/L	0.05	NS	<0.0010	<0.0100	NA	NA	NA	<0.0100
Iron	mg/L	NS	0.3	**9.28**	**10.1**	**31.4**	NA	**11.3**	**11.5**
Lead	mg/L	0.05	NS	<0.0010	<0.0100	NA	NA	NA	<0.0100
Magnesium	mg/L	NS	NS	**28.4**	**31.2**	NA	NA	NA	**44.9**
Manganese	mg/L	NS	0.05	**0.41**	**0.447**	**1.46**	NA	**0.50**	**0.50**
Mercury	mg/L	0.002	NS	<0.00020	<0.000200	NA	NA	NA	<0.000200
Potassium	mg/L	NS	NS	**7.26**	**9.08**	NA	NA	NA	**5.63**
Selenium	mg/L	0.05	NS	<0.0010	NA	NA	NA	NA	<0.0200
Silver	mg/L	0.13	NS	<0.0010	NA	NA	NA	NA	NA
Sodium	mg/L	NS	NS	**186**	**193**	NA	NA	NA	**229**
Strontium	mg/L	NS	NS	**0.65**	**0.705**	**2.29**	NA	**0.83**	**0.853**
Zinc	mg/L	5	NS	<0.020	<0.0100	NA	NA	NA	<0.0100
Anions									
Bromide	mg/L	NS	NS	**0.35**	NA	<2.00	**2.39**	**1.00**	**1.07**
Chloride	mg/L	NS	250	**210**	**192**	**1190**	**1010**	**285**	**240**
Sulfate	mg/L	NS	250	<0.200	<0.250	<2.00	**5.80**	**0.412**	**2.72**
Alkalinity									
Bicarbonate Alkalinity	mg/L	NS	NS	**549**	**528**	**545**	**525**	**676**	**625**
Carbonate Alkalinity	mg/L	NS	NS	<1.0	<10.0	<1.0	<10.0	<1.0	<10.0
Total Alkalinity	mg/L	NS	NS	NA	**528**	NA	**525**	NA	**625**
Total Dissolved Solids (TDS)	mg/L	NS	500	**784**	**930**	**3020**	**2820**	**1110**	**1380**
Specific Conductivity	umhos/cm	NS	NS	**1359**	NA	NA	NA	NA	NA
BTEX Compounds									
Benzene	mg/L	0.0011	NS	<0.00500	<0.00500	<0.005	<0.00500	<0.005	<0.00500
Ethylbenzene	mg/L	2.4	NS	<0.00500	<0.00500	<0.005	<0.00500	<0.005	<0.00500
Toluene	mg/L	6.1	NS	<0.00500	<0.0100	<0.005	<0.0100	<0.005	<0.0100
Xylene (total)	mg/L	10	NS	<0.015	<0.0500	<0.015	<0.0500	<0.015	<0.0500
Hydrocarbon Fractions									
TPH-D	mg/L	1.0	NS	NA	**0.143**	NA	**0.326**	NA	<0.134
TPH-O	mg/L	1.0	NS	NA	<0.123	NA	<0.125	NA	<0.123
TPH-G	mg/L	1.3	NS	NA	<0.150	NA	<0.150	NA	<0.150
Aliphatic C6-C8	mg/L	170	NS	<0.030	NA	<0.030	NA	<0.030	NA
Aliphatic >C8-C10	mg/L	3.4	NS	<0.020	NA	<0.020	NA	<0.020	NA
Aliphatic >C10-C12	mg/L	3.4	NS	<0.100	NA	<0.100	NA	<0.100	NA
Aliphatic >C12-C16	mg/L	3.4	NS	<0.100	NA	<0.100	NA	<0.100	NA
Aliphatic >C16-C35	mg/L	67	NS	<0.150	NA	<0.150	NA	<0.150	NA
Aromatic >C8-C10	mg/L	1.3	NS	<0.030	NA	<0.030	NA	<0.030	NA
Unadjusted >C10-C12 Aromatics	mg/L	1.3	NS	<0.100	NA	<0.100	NA	<0.100	NA
Unadjusted >C12-C16 Aromatics	mg/L	1.3	NS	<0.100	NA	<0.100	NA	<0.100	NA
Unadjusted >C16-C21 Aromatics	mg/L	1.0	NS	<0.100	NA	<0.100	NA	<0.100	NA
Aromatic >C21-C35	mg/L	1.0	NS	<0.100	NA	<0.100	NA	<0.100	NA
Radium									
Radium 226	pCi/L	NS	NS	NA	**0.431**	**0.681**	**0.673**	**0.534**	**0.279**
Radium 228	pCi/L	NS	NS	NA	**0.694**	**1.09**	**1.28**	**0.941**	**0.821**
Radium 226+228	pCi/L	NS	NS	NA	**1.125**	**1.771**	**1.953**	**1.475**	**1.100**
Total Dissolved Solids (TDS)	mg/L	NS	500	NA	NA	NA	NA	NA	NA

Notes:

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NA - Not analyzed; NS - No Standard, NYR - Not Yet Received

Table 6

Groundwater Analytical Data

Jeanerette Lumber v. ConocoPhillips Company, et al.

Bayou Pigeon Oil Gas Field

Iberia Parish, Louisiana

			Well Identifier	MW-3	
			Screened Depth Interval (feet BGS):	23-28'	
			Sample Date:	2/9/2021	
Parameters	**Units**	**MO-1 DW3 (No DAF)**	**EPA SMCL**	ERM	ICON
Total Metals					
Arsenic	mg/L	0.05	NS	**0.095**	NA
Barium	mg/L	2	NS	**1.38**	NA
Cadmium	mg/L	0.01	NS	NA	NA
Calcium	mg/L	NS	NS	**317**	NA
Chromium	mg/L	0.05	NS	NA	NA
Iron	mg/L	NS	0.3	**25.3**	NA
Lead	mg/L	0.05	NS	NA	NA
Magnesium	mg/L	NS	NS	**126**	NA
Manganese	mg/L	NS	0.05	**1.04**	NA
Mercury	mg/L	0.002	NS	NA	NA
Potassium	mg/L	NS	NS	**6.7**	NA
Selenium	mg/L	0.05	NS	NA	NA
Silver	mg/L	0.13	NS	NA	NA
Sodium	mg/L	NS	NS	**235**	NA
Strontium	mg/L	NS	NS	**2.12**	NA
Zinc	mg/L	5	NS	NA	NA
Dissolved Metals					
Arsenic	mg/L	0.05	NS	**0.079**	**0.0834**
Barium	mg/L	2	NS	**1.20**	**1.20**
Cadmium	mg/L	0.01	NS	NA	<0.00500
Calcium	mg/L	NS	NS	NA	**291**
Chromium	mg/L	0.05	NS	NA	<0.0100
Iron	mg/L	NS	0.3	**22.2**	**21.8**
Lead	mg/L	0.05	NS	NA	<0.0100
Magnesium	mg/L	NS	NS	NA	**110**
Manganese	mg/L	NS	0.05	**1.05**	**0.989**
Mercury	mg/L	0.002	NS	NA	<0.000200
Potassium	mg/L	NS	NS	NA	**7.25**
Selenium	mg/L	0.05	NS	NA	<0.0200
Silver	mg/L	0.13	NS	NA	NA
Sodium	mg/L	NS	NS	NA	**225**
Strontium	mg/L	NS	NS	**1.91**	**1.94**
Zinc	mg/L	5	NS	NA	**0.0254**
Anions					
Bromide	mg/L	NS	NS	**1.00**	**2.14**
Chloride	mg/L	NS	250	**831**	**606**
Sulfate	mg/L	NS	250	**1.03**	**5.02**
Alkalinity					
Bicarbonate Alkalinity	mg/L	NS	NS	**554**	**578**
Carbonate Alkalinity	mg/L	NS	NS	<1.0	<10.0
Total Alkalinity	mg/L	NS	NS	NA	**578**
Total Dissolved Solids (TDS)	mg/L	NS	500	**2170**	**2120**
Specific Conductivity	umhos/cm	NS	NS	NA	NA
BTEX Compounds					
Benzene	mg/L	0.0011	NS	<0.005	<0.00500
Ethylbenzene	mg/L	2.4	NS	<0.005	<0.00500
Toluene	mg/L	6.1	NS	<0.005	<0.0100
Xylene (total)	mg/L	10	NS	<0.015	<0.0500
Hydrocarbon Fractions					
TPH-D	mg/L	1.0	NS	NA	<0.134
TPH-O	mg/L	1.0	NS	NA	<0.124
TPH-G	mg/L	1.3	NS	NA	<0.150
Aliphatic C6-C8	mg/L	170	NS	<0.030	NA
Aliphatic >C8-C10	mg/L	3.4	NS	<0.020	NA
Aliphatic >C10-C12	mg/L	3.4	NS	<0.100	NA
Aliphatic >C12-C16	mg/L	3.4	NS	<0.100	NA
Aliphatic >C16-C35	mg/L	67	NS	<0.150	NA
Aromatic >C8-C10	mg/L	1.3	NS	<0.030	NA
Unadjusted >C10-C12 Aromatics	mg/L	1.3	NS	<0.100	NA
Unadjusted >C12-C16 Aromatics	mg/L	1.3	NS	<0.100	NA
Unadjusted >C16-C21 Aromatics	mg/L	1.0	NS	<0.100	NA
Aromatic >C21-C35	mg/L	1.0	NS	**0.242**	NA
Radium					
Radium 226	pCi/L	NS	NS	**1.37**	**0.939**
Radium 228	pCi/L	NS	NS	**1.72**	**1.04**
Radium 226+228	pCi/L	NS	NS	**3.09**	**1.979**
Total Dissolved Solids (TDS)	mg/L	NS	500	NA	NA

Notes:

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Table 7
Groundwater Field Parameters
Jeanerette Lumber v. ConocoPhillips Company, et al.
Bayou Pigeon Oil Gas Field
Iberia Parish, Louisiana

Well ID	**JLS-10**						
Date	7/30/2020						
DTW	9.64'						
TD	42.64'						
Stickup	6.72'						
Method	Peristaltic Pump						
Time	Gal	Temp (°C)	pH	Cond (µs)	ORP	Turb	TDS
9:30	0.00	25.9	6.66	2045	107	92	1468
9:36	0.50	24.1	6.32	2025	-7	53	1462
9:51	1.00	26.3	6.40	2083	-61	37	1502
10:11	1.50	27.5	6.69	2094	-85	9	1508
10:47	2.00	27.5	7.01	2072	-101	9	1488
10:55	Collect JLS-10, no radium collected						
Well ID	**JLS-11**						
Date	7/30/2020						
DTW	2.85'						
DTW	12.05'						
TD	37.2						
Stickup	5'						
Method	Peristaltic Pump						
Time	Gal	Temp (°C)	pH	Cond (ms)	ORP	Turb	TDS
16:07	0.0	26.1	6.38	78.31	-84	OR	105.2
16:12	0.5	25.3	6.29	79.74	-72	58	107.1
16:18	1.0	25.9	6.20	81.11	-65	18	106.9
16:30	1.75	24.7	6.15	80.66	-61	24	108.5
16:35	Sample Taken: Rads included						
Well ID	**JLS-14**						
Date	8/5/2020						
DTW	2.90'						
TD	53.10'						
Stickup	5.20'						
Method	Peristaltic Pump						
Time	Gal	Temp (°C)	pH	Cond (µs)	ORP	Turb	TDS
1320	0.0	29.5	7.00	1557	40	OR	1102
1328	1.0	27.5	7.11	1472	-88	OR	1028
1334	2.0	27.4	7.10	1465	-92	87	1025
1340	3.0	25.9	7.19	1456	-84	62	1019
1345	3.5	25.4	7.13	1458	-91	12	1021
1350	Begin Sampling						
1410	Finish Sampling						
Well ID	**JLS-17**						
Date	8/7/2020						
DTW	3.34'						
TD	52.65'						
Stickup	5.19'						
Method	Peristaltic Pump						
Time	Gal	Temp (°C)	pH	Cond (µs)	ORP	Turb	TDS
1453	0.0	30.9	7.48	1588	46	OR	1097
1502	1.0	25.5	7.45	1574	-13	OR	1112
1507	2.0	24.9	7.36	1577	-47	50	1117
1514	3.0	23.1	7.14	1587	-92	30	1115
1517	3.5	22.8	7.10	1586	-92	25	1117
1525	Sampling JLS-17						
	ICON w/ HET taking split						
1545	Finish sampling JLS-17						

Table 7
Groundwater Field Parameters
Jeanerette Lumber v. ConocoPhillips Company, et al.
Bayou Pigeon Oil Gas Field
Iberia Parish, Louisiana

Well ID	**MW-1**						
Date	2/9/2021						
DTW	4.73'						
TD	34.19'						
Stickup (mudline) 7.10'							
Method	Peristaltic Pump						
Time	Gal	Temp (°C)	pH	Cond (µs)	ORP	Turb	TDS
926	0.0	18.0	8.21	2022	33	152	NA
929	0.5	20.1	6.88	4033	-67	359	NA
934	1.0	20.5	6.38	4313	-81	94	NA
937	1.5	20.5	6.31	4300	-87	OR	NA
940	2.0	20.5	6.29	4283	-92	OR	NA
943	3.0	20.6	6.29	4358	-97	91.4	NA
947	4.0	20.7	6.29	4375	-101	41.9	NA
952	5.0	20.7	6.34	4352	-97	40.7	NA
957	6.00	20.8	6.30	4347	-94	32.5	NA
1003	7.00	20.8	6.35	4367	-93	16.4	NA
1006	7.50	20.7	6.35	4357	-96	17.1	NA
1010	8.0	20.8	6.36	4351	-92	16.3	NA
1015	Begin Sampling at MW-1						
1038	Finish Sampling						
Well ID	**MW-2**						
Date	2/9/2021						
DTW	4.41'						
TD	36.03'						
Stickup(mudline) 8.63'							
Method	Peristaltic Pump						
Time	Gal	Temp (°C)	pH	Cond (µs)	ORP	Turb	TDS
1255	0.0	21.5	7.64	1037	-92	25.3	NA
1303	1.0	22.5	7.65	1573	-49	OR	NA
1318	2.0	23.0	7.13	1915	-53	416	NA
1327	2.5	22.5	6.95	1961	-68	165	NA
1335	3.0	22.7	6.87	1973	-76	77.6	NA
1345	3.5	22.9	6.83	1980	-76	63.6	NA
1352	4.00	22.6	6.82	1983	-74	64.2	NA
1401	4.50	22.5	6.85	1988	-70	28.3	NA
1411	5.00	22.5	6.82	1985	-69	48.9	NA
1415	Begin Sampling at MW-2						
1500	Finish Sampling						
Well ID	**MW-3**						
Date	2/9/2021						
DTW	4.23'						
TD	34.55'						
Stickup (mudline) 7.37'							
Method	Peristaltic Pump						
Time	Gal	Temp (°C)	pH	Cond (µs)	ORP	Turb	TDS
1101	0.0	20.6	8.39	494.10	-190	160	NA
1107	1.0	20.9	8.36	2642	-130	OR	NA
1111	2.0	21.0	7.04	2901	-84	186	NA
1116	3.0	21.3	6.69	3167	-78	114	NA
1122	4.0	21.2	6.58	3280	-76	63.8	NA
1128	5.0	21.2	6.54	3304	-76	72.7	NA
1134	6.0	21.3	6.51	3342	-79	59.8	NA
1140	7.0	21.8	6.50	3368	-76	32.5	NA
1147	8.0	22.1	6.48	3356	-74	27.1	NA
1156	9.0	22.0	6.54	3383	-70	17.9	NA
1203	10.0	21.9	6.54	3361	-69	22.1	NA
1211	11.0	21.9	6.60	3379	-70	25.3	NA
1215	Begin Sampling at MW-3						
1235	Finished Sampling						

Notes:
NA = Not Analyzed

Table 8

Surface Water Analytical Data

Jeanerette Lumber v. ConocoPhillips Company, et al.

Bayou Pigeon Oil Gas Field

Iberia Parish, Louisiana

		Sample ID	SW-1 (UPSTREAM)	SW-2 (SITE ENTRANCE)	SW-3 (SITE CANAL)	SW-4 (SITE)	SW-5 (DOWNSTREAM)
		Sample Date:	2/25/2021	2/25/2021	2/25/2021	2/25/2021	2/25/2021
Parameters	**Units**	**LDEQ Numerical Criteria**	ERM	ERM	ERM	ERM	ERM
Chloride[(1)]	mg/L	65	26.5	26.8	27.2	26.7	26.3
Specific Conductance	umhos/cm	NS	259	259	271	270	266

Notes:

[(1)] Listed limit is the LDEQ numerical surface water criteria for Drainage Basin Subsegment #010501.

< - Not detected at or above the reporting limit shown

NA - Not analyzed; NS - No Standard

Table 9
RECAP SCREENING EVALUATION FOR SURFACE SOIL / SEDIMENT (0-3')
NON-INDUSTRIAL DIRECT CONTACT

Jeanerette Lumber & Shingle Co., LLC v. ConocoPhillips Company, et al.
Bayou Pigeon Oil & Gas Field
Iberia Parish, Louisiana

Parameter (a)	Soilssni (b)	Area 2 Maximum Concentrations (0-3') (c)	
		East-West Canal	North-South Canal
Metals (mg/kg-wet)			
Arsenic	12	7.74	3.88
Barium	550	**953**	110
Cadmium	3.9	<1.24 [0.409]	0.29
Chromium	12000	14.4	9.3
Lead	400	13.4	9.8
Mercury	2.3	<0.107 [0.0377]	0.058
Selenium	39	<9.9	-
Silver	39	<0.5	-
Strontium (d)	4700	73	24.3
Zinc	2300	53.6	39
TPH Mixtures (mg/kg-wet) (e)			
TPH-DRO (>C10-C28)	65	493 F	-
TPH-ORO (>C28-C35)	180	432 F	-
TPH Fractions (mg/kg-wet) (e)			
Aliphatic >C6-C8	1200	<60.8	-
Aliphatic >C8-C10	120	<60.8	-
Aliphatic >C10-C12	230	<15	-
Aliphatic >C12-C16	370	28	-
Aliphatic >C16-C35	7100	89.3	-
Aromatic >C8-C10	65	<56	-
Aromatic >C10-C12	120	<10	-
Aromatic >C12-C16	180	17.2	-
Aromatic >C16-C21	150	22.6	-
Aromatic >C21-C35	180	38	-
PAHs (mg/kg-wet)			
2-Methylnaphthalene	22	0.014	-
Acenaphthene	370	0.015	-
Acenaphthylene	350	<0.0066	-
Anthracene	2200	<0.0033	-
Benzo(a)anthracene	0.62	0.00984	-
Benzo(a)pyrene	0.33	0.00407	-
Benzo(b)fluoranthene	0.62	<0.0066	-
Benzo(k)fluoranthene	6.2	0.00562	-
Chrysene	62	0.014	-
Dibenz(a,h)anthracene	0.33	<0.0066	-
Fluoranthene	220	0.042	-
Fluorene	280	0.014	-
Indeno(1,2,3-cd)pyrene	0.62	0.00551	-
Naphthalene	6.2	<0.0033	-
Phenanthrene	2100	0.026	-
Pyrene	230	0.04	-

Table 9
RECAP SCREENING EVALUATION FOR SURFACE SOIL / SEDIMENT (0-3')
NON-INDUSTRIAL DIRECT CONTACT

Jeanerette Lumber & Shingle Co., LLC v. ConocoPhillips Company, et al.
Bayou Pigeon Oil & Gas Field
Iberia Parish, Louisiana

Notes:
- Analyte was not analyzed in the respective area
< - Not detected at or above the reporting limit shown.
<# [#] - Reporting limit exceeded maximum concentration. Maximum reported concentration shown in brackets.
F - Fraction data available, therefore mixture data are not further evaluated in risk evaluation.
TPH - Total Petroleum Hydrocarbons
DRO - Diesel Range Organics
ORO - Oil Range Organics
PAH - Polycyclic Aromatic Hydrocarbons
Bold and shaded values exceed the Soilssni and are identified for further risk evaluation of the direct contact pathway under a higher Management Option.

(a) Parameters applicable to RECAP that were analyzed in soil/sediment samples collected from the 0 to 3 foot interval (0-3') at the site by ERM, HET, and ICON (samples collected from the 2-4' interval were included).
(b) Soilssni is the RECAP Screening Option Standard from Table 1 of RECAP 2003 for soil protective of nonindustrial land use.
(c) The maximium reported concentration in soil and sediment samples collected from the site, including ERM, HET, and ICON samples. The North-South canal includes sampling locations JLS-14, JLS-15, JLS-16, and JLS-17. The East-West canal includes all other sampling locations in Area 2 (i.e., those within and adjacent to the canal that included the former Chevron operations area). For constituents for which a reporting limit was higher than the maximum detected concentration, both are shown, with the highest reported concentrations in brackets.
(d) Soilssni not provided in RECAP; the risk-based value was calculated in accordance with Appendix H of RECAP 2003.
(e) Appendix D of RECAP identifies: "If TPH fractionation data and TPH mixture data have both been collected at an AOI and the two data sets yield different conclusions about management of the AOI, then management decisions shall be based on the fractionation data since the fractionation method yields more specific information regarding the TPH constituents present and thus more accurately characterizes site conditions." TPH fraction data are available for sample locations and intervals with TPH mixture data and are therefore used in the risk assessment in accordance with RECAP.

Table 10
RECAP SCREENING EVALUATION FOR SURFACE SOIL / SEDIMENT (0-15')
NON-INDUSTRIAL DIRECT CONTACT

Jeanerette Lumber & Shingle Co., LLC v. ConocoPhillips Company, et al.
Bayou Pigeon Oil & Gas Field
Iberia Parish, Louisiana

Parameter (a)	Soilssni (b)	Area 2 Maximum Concentrations (0-15') (c)	
		East-West Canal	North-South Canal
Metals (mg/kg-wet)			
Arsenic	12	10.5	4.24
Barium	550	**2040**	131
Cadmium	3.9	<1.24 [0.409]	0.4
Chromium	12000	14.4	10
Lead	400	13.4	11.3
Mercury	2.3	<0.107 [0.0377]	0.058
Selenium	39	<9.9	-
Silver	39	<0.5	-
Strontium (d)	4700	73	38.8
Zinc	2300	53.6	39
TPH Mixtures (mg/kg-wet) (e)			
TPH-DRO (>C10-C28)	65	1900 F	-
TPH-ORO (>C28-C35)	180	622 F	-
TPH Fractions (mg/kg-wet) (e)			
Aliphatic >C6-C8	1200	181	-
Aliphatic >C8-C10	120	**313**	-
Aliphatic >C10-C12	230	46.5	-
Aliphatic >C12-C16	370	188	-
Aliphatic >C16-C35	7100	329	-
Aromatic >C8-C10	65	**216**	-
Aromatic >C10-C12	120	<10	-
Aromatic >C12-C16	180	20.9	-
Aromatic >C16-C21	150	24.2	-
Aromatic >C21-C35	180	59.4	-
PAHs (mg/kg-wet)			
2-Methylnaphthalene	22	0.7	-
Acenaphthene	370	0.132	-
Acenaphthylene	350	<0.066	-
Anthracene	2200	<0.033	-
Benzo(a)anthracene	0.62	<0.066 [0.00984]	-
Benzo(a)pyrene	0.33	<0.033 [0.00407]	-
Benzo(b)fluoranthene	0.62	<0.066	-
Benzo(k)fluoranthene	6.2	<0.033 [0.00562]	-
Chrysene	62	0.076	-
Dibenz(a,h)anthracene	0.33	<0.066	-
Fluoranthene	220	0.252	-
Fluorene	280	0.441	-
Indeno(1,2,3-cd)pyrene	0.62	<0.033 [0.00551]	-
Naphthalene	6.2	0.177	-
Phenanthrene	2100	0.381	-
Pyrene	230	0.148	-

Table 10
RECAP SCREENING EVALUATION FOR SURFACE SOIL / SEDIMENT (0-15')
NON-INDUSTRIAL DIRECT CONTACT

Jeanerette Lumber & Shingle Co., LLC v. ConocoPhillips Company, et al.
Bayou Pigeon Oil & Gas Field
Iberia Parish, Louisiana

Notes:
- Analyte was not analyzed in the respective area
< - Not detected at or above the reporting limit shown.
<# [#] - Reporting limit exceeded maximum concentration. Maximum reported concentration shown in brackets.
F - Fraction data available, therefore mixture data are not further evaluated in risk evaluation.
TPH - Total Petroleum Hydrocarbons
DRO - Diesel Range Organics
ORO - Oil Range Organics
PAH - Polycyclic Aromatic Hydrocarbons
Bold and shaded values exceed the Soilssni and are identified for further risk evaluation of the direct contact pathway under a higher Management Option.

(a) Parameters applicable to RECAP that were analyzed in soil/sediment samples collected from the 0 to 15 foot interval (0-15') at the site by ERM, HET, and ICON.
(b) Soilssni is the RECAP Screening Option Standard from Table 1 of RECAP 2003 for soil protective of nonindustrial land use.
(c) The maximium reported concentration in soil and sediment samples collected from the site, including ERM, HET, and ICON samples. The North-South canal includes sampling locations JLS-14, JLS-15, JLS-16, and JLS-17. The East-West canal includes all other sampling locations in Area 2 (i.e., those within and adjacent to the canal that included the former Chevron operations area). For constituents for which a reporting limit was higher than the maximum detected concentration, both are shown, with the highest reported concentrations in brackets.
(d) Soilssni not provided in RECAP; the risk-based value was calculated in accordance with Appendix H of RECAP 2003.
(e) Appendix D of RECAP identifies: "If TPH fractionation data and TPH mixture data have both been collected at an AOI and the two data sets yield different conclusions about management of the AOI, then management decisions shall be based on the fractionation data since the fractionation method yields more specific information regarding the TPH constituents present and thus more accurately characterizes site conditions." TPH fraction data are available for sample locations and intervals with TPH mixture data and are therefore used in the risk assessment in accordance with RECAP.

Table 11
MO-3 DIRECT CONTACT EVALUATION
SOIL/SEDIMENT

Jeanerette Lumber & Shingle Co., LLC v. ConocoPhillips Company, et al.
Bayou Pigeon Oil & Gas Field
Iberia Parish, Louisiana

Constituents of Concern [a]	Initial Direct Contact RS		Target Organ/ System [d]	Additivity Divisor [e]	Final Direct Contact RS [f]		$Soil_{Sat}$ [g]	JLS-2 AOIC [h]	
	MO-1 Soili [b]	MO-3 $Soil_{rec}$ [c]			MO-1 Soili	MO-3 $Soil_{rec}$		0-3'	0-15'
Metals (mg/kg-wet)									
Barium	140000	52500	Kidney	1	140000	52500	NA	953	2040
TPH Fractions (mg/kg-wet)									
Aliphatic >C8-C10	8800	16800	Liver, Hemat.	1	8800	16800	NA	<60.8	313
Aromatic >C8-C10	5100	10300	BW	1	5100	10300	NA	<56	216

Notes:
NA - Not Applicable.
< - Not detected at or above the reporting limit shown.
MO-1 - Management Option 1
MO-3 - Management Option 3
Grey font - result below screening standard

(a) Constituents with concentrations that exceed RECAP Soilssni were included for further evaluation under MO-1 and MO-3 for direct contact.

(b) Default MO-1 industrial RECAP Standard for direct contact with soil, taken from Table 2 of RECAP 2003.

(c) MO-3 recreational RECAP Standards for children and adults were calculated using the EPA's Regional Screening Level (RSL) calculator for recreational exposure to soil/sediment, available at https://www.epa.gov/risk/regional-screening-levels-rsls. Standards were calculated using default EPA toxicological values and exposure assumptions with the following exceptions (see input and output in Table N-10):

Toxicological Values - default value not provided by EPA for RECAP-defined fractions; the toxicological values and ABS values provided in RECAP (2003) were used for TPH
Exposure Duration (ED), years - the adult ED was increased to reflect a total ED of 30 years, consistent with the RECAP residential ED.
Exposure Frequency (EF), days/year - default value not provided by EPA; a site-specific EF of 104 days/year was used to reflect a visitation frequency of twice a week or daily for over 3 months.
Exposure Time (ET), hours/day - default value not provided by EPA; a site-specific ET of 2 hours/day was assumed.

(d) Target Organ for assessing additive effects for noncarcinogenic COCs, obtained from Appendices D and G of RECAP (2003).

(e) Additivity divisor for noncarcinogenic effects on the same target/organ system.

(f) For each land use assumption, the Final Direct Contact RS is the Initial Direct Contact RS divided by the additivity divisor. RECAP identifies an aesthetic cap for total petroleum hydrocarbons of 10,000 mg/kg. The risk-based standard is shown in this table to provide a risk assessment.

(g) Soil saturation limit. Not applicable for these constituents.

(h) Area of Investigation Concentration (AOIC) is the maximum reported concentration in the JLS-2 Area of Investigation (AOI).

Table 12
GROUNDWATER SCREENING EVALUATION

Jeanerette Lumber & Shingle Co., LLC v. ConocoPhillips Company, et al.
Bayou Pigeon Oil & Gas Field
Iberia Parish, Louisiana

Constituents (a)	GWss (b)	SMCL (c)	Maximum Groundwater Concentration (d)	
			30-ft Zone	50-ft Zone
Metals - Total				
Arsenic	0.01	-	**0.11**	**0.44**
Barium	2	-	**77.2**	0.58
Cadmium	0.005	-	<0.05	<0.001
Calcium (g)	-	-	4260	103
Chromium	0.1	-	<0.1	0.003
Iron (e)	-	0.3	**424**	**13.7**
Lead	0.015	-	<0.1	0.0053
Magnesium (g)	-	-	1320	35.3
Manganese (e)	-	0.05	**17.4**	**0.55**
Mercury	0.002	-	<0.0002	<0.0002
Potassium (g)	-	-	57	7.96
Selenium	0.05	-	<0.02	<0.001
Silver	0.018	-	-	<0.001
Sodium (g)	-	-	18300	215
Strontium (f)	2.2	-	**60.7**	0.72
Zinc	1.1	-	0.27	0.021
Metals-Dissolved				
Arsenic	0.01	-	**0.1**	**0.449**
Barium	2	-	**66.1**	0.495
Cadmium	0.005	-	<0.025	**0.0131**
Calcium (g)	-	-	291	93.9
Chromium	0.1	-	<0.1	<0.01
Iron (e)	-	0.3	**31.4**	**10.1**
Lead	0.015	-	<0.025	<0.01
Magnesium (g)	-	-	110	31.2
Manganese (e)	-	0.05	**1.46**	**0.447**
Mercury	0.002	-	<0.0002	<0.0002
Potassium (g)	-	-	7.25	9.08
Selenium	0.05	-	<0.02	<0.001
Silver	0.018	-	-	<0.001
Sodium (g)	-	-	261	207
Strontium (f)	2.2	-	**48.3**	0.705
Zinc	1.1	-	0.23	<0.02
Water Quality Parameters				
Chloride	-	250	**42700**	210
BTEX Compounds				
Benzene	0.005	-	<0.005	<0.005
Ethylbenzene	0.7	-	<0.005	<0.005
Toluene	1	-	0.01	<0.01
Xylene (total)	10	-	<0.05	<0.05

Table 12
GROUNDWATER SCREENING EVALUATION

Jeanerette Lumber & Shingle Co., LLC v. ConocoPhillips Company, et al.
Bayou Pigeon Oil & Gas Field
Iberia Parish, Louisiana

Constituents (a)	GWss (b)	SMCL (c)	Maximum Groundwater Concentration (d)	
			30-ft Zone	50-ft Zone
TPH Mixtures (h)				
TPH-G	0.15	-	0.311 F	<0.15 F
TPH-D	0.15	-	0.355 F	0.303 F
TPH-O	0.15	-	0.215 F	0.197 F
TPH Fractions (h)				
Aliphatic >C6-C8	3.2	-	0.032	<0.03
Aliphatic >C8-C10	0.15	-	<0.020	<0.020
Aliphatic >C10-C12	0.15	-	<0.100	<0.100
Aliphatic >C12-C16	0.15	-	<0.100	<0.100
Aliphatic >C16-C35	7.3	-	<0.150	<0.150
Aromatic >C8-C10	0.15	-	<0.030	<0.030
Aromatic >C10-C12	0.15	-	<0.100	<0.100
Aromatic >C12-C16	0.15	-	<0.100	<0.100
Aromatic >C16-C21	0.15	-	<0.100	<0.100
Aromatic >C21-C35	0.15	-	**0.242**	<0.1

Notes:
Units in mg/L.
- Standard not applicable
TPH - Total Petroleum Hydrocarbons
BTEX - Benzene, Toluene, Ethylbenzene, and Xylene
F - Fraction data available, therefore mixture data are not further evaluated in risk evaluation.
< - Not detected at the detection limit shown
A bold value with shading indicates that the maximum reported concentration exceeds the GWss or SMCL and is identified as subject to further risk evaluation under a higher Management Option.
A bold value with no shading indicates that the maximum reported concentration exceeds the GWss or SMCL but is not identified for further risk evaluation under a higher Management Option.

(a) Constituents analyzed in groundwater samples collected from the site by ERM, HET, and ICON.
(b) GWss = RECAP Screening Standard from Table 1 of RECAP (2003).
(c) EPA Secondary Maximum Contaminant Level (SMCL), a non-enforceable guideline for public water systems addressing undesirable aesthetic effects such as taste, color, and odor.
(d) Maximum reported concentrations in groundwater samples collected in each groundwater zone.
(e) Iron and manganese are naturally elevated above the SMCL (used as a screening standard) in groundwater in this site location as documented in independent studies by the USGS and in unimpacted wells on the property. Arsenic is also naturally elevated and was reported at maximum concentration in the 50' zone where E&P indicators were not elevated.
(f) GWss not provided in RECAP; the risk-based value was calculated in accordance with Appendix H of RECAP (2003).
(g) Essential elements have no RECAP standards or toxicity factors (i.e. calcium, magnesium, potassium, sodium), and are not addressed in risk evaluation.
(h) TPH fraction data are available for all locations with TPH mixture data and are used in the risk assessment in accordance with Appendix D of RECAP (2003).

Table 13
EXAMPLE MO-1 GROUNDWATER EVALUATION - 30-FT ZONE

Jeanerette Lumber & Shingle Co., LLC v. ConocoPhillips Company, et al.
Bayou Pigeon Oil & Gas Field
Iberia Parish, Louisiana

Constituents (a)	Initial MO-1 GW3DW (b)	DF3 (c)	Final MO-1 GW3DW (d)	Water Sol (e)	Limiting MO-1 RS (f)	Compliance Concentration (g)	
						Total	*Dissolved*
Metals (mg/L)							
Arsenic	0.05	440	22	-	22	0.11	0.1
Barium	2	440	880	-	880	77.2	66.1
Strontium (h)	13	440	5720	-	5720	60.7	48.3
TPH Fractions (mg/L)							
Aromatic >C21-C35	1	440	440	-	440	0.242	-
Water Quality (mg/L)							
Chloride	65-250 (i)	440	28,600-110,000	-	28,600-110,000	42,700	-

Notes:
- Not Applicable or not analyzed
MO-1 - Management Option 1, applicable based on soil AOI of ≤0.5 acre.
(a) Constituents shown include those with constituent concentrations above the default GWSS identified for site-specific assessment under Management Option 1.
(b) MO-1 GW3DW - RECAP Standard (RS) from Table 3 of RECAP (2003) for Class 3 groundwater that may hypothetically discharge to a downgradient surface water body that is classified as a drinking water source (i.e., Subsegment 010501, with designated uses of recreation, fish and wildlife propagation, and drinking water supply per LAC 33:IX.1123). Although the pathway of groundwater to surface water discharge was identified as incomplete, for purposes of demonstration, an example MO-1 calculation of standards for the 30-foot zone groundwater is provided to demonstrate the magnitude of MO-1 standards.
(c) DF3 - MO-1 default longitudinal Dilution Attenuation Factor for Class 3 groundwater, representative of attenuation of constituent concentrations from the POC to the nearest potential receiving surface water body. The DF3 values were obtained from Appendix H of RECAP (2003) as a function of x (>2000 ft) and Sd (<5 ft) for the 30-foot zone.
(d) Final MO-1 GW3DW for Class 3 ground water, equal to the initial GW3DW multiplied by the DF3.
(e) Groundwater solubility from Table 3 of RECAP (2003).
(f) The limiting MO-1 RS is the lowest of the Final GW3DW and Water Sol (not applicable for these constituents).
(g) Maximum reported concentration in monitoring wells in the 30-foot zone in Area 2.
(h) Standard not provided in RECAP; the risk-based value was calculated in accordance with Appendix H of RECAP (2003).
(i) In accordance with RECAP, the initial standard is taken from LAC 33:IX.1123 for Subsegment 010501 (65 mg/L) and from LAC 33:IX.1113.C, which identifies 250 mg/L as the standard for chlorides in unlisted water bodies including the site canals.

Table 14
RECAP SCREENING EVALUATION FOR SOIL / SEDIMENT
GROUNDWATER PROTECTION

Jeanerette Lumber & Shingle Co., LLC v. ConocoPhillips Company, et al.
Bayou Pigeon Oil & Gas Field
Iberia Parish, Louisiana

Parameter (a)	Soilssgw (b)	Area 2 Maximum Concentrations (c)	
		East-West Canal	North-South Canal
Metals (mg/kg-dry)			
Arsenic	100	25	10.2
Barium	2000	4857 / SPLP	244
Cadmium	20	<3.97 [0.929]	0.9
Chromium	100	35.3	19.4
Lead	100	34.6	20.5
Mercury	4	<0.366 [0.0987]	0.119
Selenium	20	<31.8	-
Silver	100	<2.04	-
Strontium (d)	44000	198	113
Zinc	2800	159	78.6
TPH Mixtures (mg/kg-dry) (e)			
TPH-DRO	65	4623 F	-
TPH-ORO	10000	1799 F	-
TPH Fractions (mg/kg-dry) (e)			
Aliphatic >C6-C8	10000	400	-
Aliphatic >C8-C10	5300	692	-
Aliphatic >C10-C12	10000	149	-
Aliphatic >C12-C16	10000	603	-
Aliphatic >C16-C35	10000	1054	-
Aromatic >C8-C10	65	**478**	-
Aromatic >C10-C12	100	<39	-
Aromatic >C12-C16	200	67	-
Aromatic >C16-C21	2100	77.6	-
Aromatic >C21-C35	10000	190	-
PAHs (mg/kg-dry)			
2-Methylnaphthalene	1.7	1.5	-
Acenaphthene	220	0.292	-
Acenaphthylene	88	<0.157	-
Anthracene	120	<0.079	-
Benzo(a)anthracene	330	<0.157 [0.0358]	-
Benzo(a)pyrene	23	<0.079 [0.009]	-
Benzo(b)fluoranthene	220	<0.157	-
Benzo(k)fluoranthene	120	<0.079 [0.0125]	-
Chrysene	76	0.168	-
Dibenz(a,h)anthracene	540	<0.157	-
Fluoranthene	1200	0.558	-
Fluorene	230	0.976	-
Indeno(1,2,3-cd)pyrene	9.2	<0.079 [0.0151]	-

Table 14
RECAP SCREENING EVALUATION FOR SOIL / SEDIMENT
GROUNDWATER PROTECTION

Jeanerette Lumber & Shingle Co., LLC v. ConocoPhillips Company, et al.
Bayou Pigeon Oil & Gas Field
Iberia Parish, Louisiana

Parameter (a)	Soilssgw (b)	Area 2 Maximum Concentrations (c)	
		East-West Canal	North-South Canal
Naphthalene	1.5	0.392	-
Phenanthrene	660	0.843	-
Pyrene	1100	0.327	-
Leachate (mg/L)			
SPLP Arsenic	0.2	0.0012	-
SPLP Barium	40	0.099	-
SPLP Cadmium	0.1	<0.001	-
SPLP Zinc	22	<0.02	-

Notes:
- Analyte was not analyzed in the respective area
< - Not detected at or above the reporting limit shown.
<# [#] - Reporting limit exceeded maximum concentration. Maximum reported concentration shown in brackets.
F - Fraction data available, therefore mixture data are not further evaluated in risk evaluation.
TPH - Total Petroleum Hydrocarbons
DRO - Diesel Range Organics
ORO - Oil Range Organics
PAH - Polycyclic Aromatic Hydrocarbons
Bold and shaded values exceed the Soilssgw and are identified for further risk evaluation of the groundwater protection pathway under a higher Management Option.

(a) Parameters applicable to RECAP that were analyzed in soil/sediment samples collected from the site by ERM, HET, and ICON.

(b) Soilssgw is the RECAP Screening Option Standard from Table 1 of RECAP 2003 for soil protective of groundwater.

(c) The maximium reported concentration in soil and sediment samples collected from each area, including ERM, HET, and ICON samples. The North-South canal includes sampling locations JLS-14, JLS-15, JLS-16, and JLS-17. The East-West canal includes all other sampling locations in Area 2 (i.e., those within and adjacent to the canal that included the former Chevron operations area). For constituents for which a reporting limit was higher than the maximum detected concentration, both are shown, with the highest reported concentrations in brackets.

(d) Soilssgw not provided in RECAP; the risk-based value was calculated in accordance with Appendix H of RECAP 2003.

(e) Appendix D of RECAP identifies: "If TPH fractionation data and TPH mixture data have both been collected at an AOI and the two data sets yield different conclusions about management of the AOI, then management decisions shall be based on the fractionation data since the fractionation method yields more specific information regarding the TPH constituents present and thus more accurately characterizes site conditions." TPH fraction data are available for sample locations and intervals with TPH mixture data and are therefore used in the risk assessment in accordance with RECAP.

Table 15
EXAMPLE MO-1 EVALUATION FOR SOIL / SEDIMENT
GROUNDWATER PROTECTION

Jeanerette Lumber & Shingle Co., LLC v. ConocoPhillips Company, et al.
Bayou Pigeon Oil & Gas Field
Iberia Parish, Louisiana

Constituents of Concern [a]	Default MO-1 SoilGW3DW [b]	DF3 [c]	Final MO-1 SoilGW3DW [d]	$Soil_{Sat}$ [e]	JLS-2 AOIC [f]
TPH Fractions (mg/kg-dry)					
Aromatic >C8-C10	260	440	114400	NA	478

Notes:
TPH - Total Petroleum Hydrocarbons
NA - Not Applicable
MO-1 - Management Option 1

(a) Constituents with concentrations above the Soilssgw in Area 2 were included for further evaluation under MO-1 for protection of groundwater.

(b) MO-1 SoilGW3DW - RECAP Standard (RS) from Table 2 of RECAP (2003) for soil protective of Class 3 groundwater that may hypothetically discharge to a downgradient surface water body that is classified as a drinking water source (i.e., Subsegment 010501, with designated uses of recreation, fish and wildlife propagation, and drinking water supply per LAC 33:IX.1123). Although the pathway of groundwater to surface water discharge was identified as incomplete, for purposes of demonstration, an example MO-1 calculation of standards for soil-to-groundwater protection is provided to demonstrate the magnitude of MO-1 standards.

(c) DF3 - MO-1 default longitudinal Dilution Attenuation Factor for Class 3 ground water, representative of attenuation of constituent concentrations from the POC to the nearest potential receiving surface water body. The DF3 values were obtained from Appendix H of RECAP (2003) as a function of x (>2000 ft) and Sd (<5 ft) for the 30-foot zone.

(d) Final MO-1 SoilGW3DW for Class 3 ground water, equal to the default SoilGW3DW multiplied by the DF3. RECAP identifies an aesthetic cap for total petroleum hydrocarbons of 10,000 mg/kg. The risk-based standard is shown in this table to provide a risk assessment.

(e) Soil saturation limit. Not applicable for TPH fractions.

(f) Area of Investigation Concentration (AOIC) is the maximum reported concentration in the JLS-2 Area of Investigation (AOI).

Table 16
Delineation Sampling Cost Estimate

Jeanerette Lumber Shingle Co., LLC v. ConocoPhillips Company, et al.
Bayou Pigeon Oil Gas Field
Iberia Parish, Louisiana

	Cost	Units	Quantity	Total	Cost Basis
Work Plan/Procurement					
Coastal Use Permitting	$5,000	lump sum	1	$5,000	ERM Estimate
Develop Work Plan & HASP	$3,000	lump sum	1	$3,000	ERM Estimate
Site walk with contractors (WHE & GPRS)	$6,000	lump sum	1	$6,000	ERM Estimate
Work Plan/Procurement Subtotal				*$14,000*	
Soil Sampling and Well Installation					
Geoprobe and Marsh Master Drill Rigs (includes mobilization/demobilization, well materials, crew, and per diem)	$27,700	lump	1	$30,470	05/11/2021 Walker Hill Estimate
Barge Mobilization/Demobilization	$12,863	unit	1	$14,149	ERM Estimate, Zealous Invoice
Barge Day Rate and Crew (includes barge, crew boat, tug boat, and fuel)	$3,850	day	5	$21,175	ERM Estimate, Zealous Invoice
ERM Oversight, Development, and Equipment	$1,500	day	6	$9,000	ERM Estimate
55-Gallon Drums for Purge Water and Soil IDW	$63	unit	3	$208	ERM Estimate, Walker Hill Estimate
Purge Water and Soil IDW Drum Disposal	$150	unit	3	$495	ERM Estimate, Aaron Oil (LA Wetlands), assume 2 drums soil, 1 drum water
Lab Analysis	$7,000	lump	1	$7,700	ERM Estimate
Soil Sampling and Well Installation Subtotal				*$83,197*	
Monitoring Well Decomissioning					
ERM Oversight	$1,500	day	1	$1,500	ERM Estimate
Crew boat and captain	$1,200	day	1	$1,320	ERM Estimate
Drill crew and materials	$2,500	lump	1	$2,750	3/30/2021 Walker Hill quote
Monitoring Well Decomissioning Subtotal				*$5,570*	
Project Management and Reporting					
Project management	$5,000	lump	1	$5,000	ERM Estimate
Data Evaluation and Reporting	$15,000	lump	1	$15,000	ERM Estimate
Project Management and Reporting Subtotal				*$20,000*	
Total Estimate:				***$122,767***	

Table 17
Groundwater Monitoring Plan Cost Estimate

Jeanerette Lumber Shingle Co., LLC v. ConocoPhillips Company, et al.
Bayou Pigeon Oil Gas Field
Iberia Parish, Louisiana

	Cost	Units	Quantity	Quarters	Total	Cost Basis
Monitoring Well Sampling - 3 Wells in JLS-2 Area						
ERM 2-man field crew, truck, and sampling equipment	$2,500	day	2	12	$60,000	Assume sample 3 wells per day and mob/demob
Crew boat and captain	$1,200	day	1	12	$15,840	ERM Estimate
Lab Analysis - arsenic, barium, chloride, and radium-226/-228	$250	sample	3	12	$9,900	ERM Estimate
Purge water handling and disposal	$2,500	lump	1	3	$8,250	ERM Estimate, Aaron Oil (LA Wetlands), assume 1 drum water per year
Monitoring Well Sampling Subtotal					*$93,990*	
Monitoring Well Decomissioning (after 3 years)						
ERM Oversight	$1,500	day	1	1	$1,500	ERM Estimate
Crew boat and captain	$1,200	day	1	1	$1,320	ERM Estimate
Drill crew and materials	$2,500	lump	1	1	$2,750	3/30/2021 Walker Hill quote
Monitoring Well Decomissioning Subtotal					*$5,570*	
Project Management and Reporting						
Project management	$5,000	year	1	3	$15,000	ERM Estimate
Data Evaluation and Reporting	$15,000	year	1	3	$45,000	ERM Estimate
Project Management and Reporting Subtotal					*$60,000*	
Total Estimate					***$159,560***	

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Table 18
Contingent Sediment Remediation Cost Estimate - Alternative 1

Jeanerette Lumber Shingle Co., LLC v. ConocoPhillips Company, et al.
Bayou Pigeon Oil Gas Field
Iberia Parish, Louisiana

Scope Assumptions	***Quantity***	***Units***	***Basis***
Capping			
Area of Cap	16,329	square feet	Measured in ArcGIS (Figure 53)
Thickness of Cap	4	inches	ITRC Guidance
In-Place Volume of Cap Material	202	cubic yards	Calculation
AquaBlok Dry Bulk Density	85	lbs/ft^3	Aquablok Spec Sheet
Weight of AquaBlok Needed	231	tons	Calculation
Freight	11	truckloads	Aquablok estimate - 21.6 tons per truckload

	Unit Cost	**Units**	**Quantity**	**Cost**	**Cost Basis**
Work Plan/Procurement					
Coastal Use Permitting	$5,000	lump sum	1	$5,000	ERM Estimate
Develop Work Plan	$5,000	lump sum	1	$5,000	ERM Estimate
Site walk with contractors, bid tab and review	$5,000	lump sum	1	$5,000	ERM Estimate
Meeting with LDNR, finalize Work Plan	$7,500	lump sum	1	$7,500	ERM Estimate
Work Plan/Procurement Subtotal				*$22,500*	
Cap Placement					
Cap Placement Contractor Costs	$95,195	lump sum	1	$104,715	Zealous Quote
Construction Oversight (Labor and Expenses, Includes Crew Boat)	$3,500	day	10	$35,000	ERM Estimate
Turbidity Curtain Cost	$827	10' x 50'	6	$5,457	Paramount Materials Cost
Geotextile Fabric Cost	$781	15' x 300' roll	6	$5,155	Paramount Materials Cost
Geotextile Joining	$500	lump sum	1	$550	ERM Estimate
Geotextile and Turbidity Curtain Delivery	$2,000	truckload	1	$2,200	ERM Estimate
Turbidity Curtain Placement	$3,000	lump sum	1	$3,300	Zealous Quote
AquaBlok Cap Material Cost	$225	ton	231	$57,254	ERM Estimate, AquaBlock Quote
AquaBlok Cap Material Freight	$3,000	truckload	11	$36,300	ERM Estimate, AquaBlock Quote
				$249,930	
Closure Report and LDNR Meeting					
Closure Report Preparation and Submittal	$15,000	lump sum	1	$15,000	ERM Estimate
Meeting with LDNR plus follow-up	$7,500	lump sum	1	$7,500	ERM Estimate
Closure Reporting Subtotal				*$22,500*	
Subtotal				**$294,930**	
20% Contingency				**$58,986**	
Total Estimate				***$353,916***	

Table 19
Contingent Sediment Remediation Cost Estimate - Alternative 2

Jeanerette Lumber Shingle Co., LLC v. ConocoPhillips Company, et al.
Bayou Pigeon Oil Gas Field
Iberia Parish, Louisiana

Scope Assumptions	***Quantity***	***Units***	***Basis***
Sediment Remediation			
JLS-2 Area	16,329	square feet	Measured in ArcGIS (Figure 53)
Assumed Depth of Excavation	3	feet	Assumption
Volume of Excavation	1,814	CY	Calculation
Volume of Sediment to Transport	8,709	bbl	Conversion: 4.8 bbl/CY
Weight of Sediment to Transport	1,996	tons	Conversion: 1.1 tons/CY, assumes 70% moisture content
Solidification Agent	100	tons	5% addition for drying
Estimated Production Rate (Excavation)	1,000	bbl/day	Zealous Estimate
Excavation Time Required	9	day	ERM Estimate
Sediment Backfilling Production Rate	500	CY/day	Javeler DP-20
Sediment Backfilling Time Required	4	day	Calculation, assumes 10 hour day

	Unit Cost	**Units**	**Quantity**	**Cost**	**Cost Basis**
Work Plan/Procurement					
Coastal Use Permitting	$5,000	lump sum	1	$5,000	ERM Estimate
Develop Work Plan	$5,000	lump sum	1	$5,000	ERM Estimate
Site walk with contractors, bid tab and review	$5,000	lump sum	1	$5,000	ERM Estimate
Meeting with LDNR, finalize Work Plan	$7,500	lump sum	1	$7,500	ERM Estimate
Work Plan/Procurement Subtotal				*$22,500*	
Sediment Remediation					
Mobilization/Demobilization	$20,000	lump sum	1	$22,000	Zealous Quote
Sediment Remediation Contractor Costs (Dredge, loading, trans)	$118,000	lump sum	1	$129,800	Zealous Quote
Solidification Agent Cost	$153	ton	100	$16,794	statista.com ($113/ton purchase, $40/ton delivery)
Transportation and Disposal Costs (Waste Management, Carlyss)	$83	ton	2,096	$191,324	ERM Estimate, Zealous Quote
Construction Oversight (Labor and Expenses, Includes Crew Boat)	$3,500	day	16	$56,000	ERM Estimate
Turbidity Curtain Cost	$827	10' x 50'	6	$5,457	Paramount Materials Cost
Turbidity Curtain Delivery	$2,000	truckload	1	$2,200	ERM Estimate
Turbidity Curtain Placement	$3,000	lump sum	1	$3,300	Zealous Quote
Sampling and Analytical (29-B)	$350	sample	12	$4,620	ERM Estimate
Sediment Backfilling Mobilization/Demobilization	$20,000	lump sum	1	$22,000	Zealous Quote
Sediment Backfilling Contractor Costs	$12.33	CY	1,814	$24,608	Goose Point / Point Platte Marsh Creation Project (unit rate adjusted for inflation and tripled because of scale)
Barge Cleaning	$15,000	lump sum	1	$16,500	Zealous Quote
Survey Control & Bathymetric Surveys	$4,000	day	3	$13,200	ERM Estimate
Health and Safety Compliance	$5,000	lump sum	1	$5,000	ERM Estimate
Sediment Remediation Subtotal				*$512,803*	
Closure Report and LDNR Meeting					
Closure Report Preparation and Submittal	$15,000	lump sum	1	$15,000	ERM Estimate
Meeting with LDNR plus follow-up	$7,500	lump sum	1	$7,500	ERM Estimate
Closure Reporting Subtotal				*$22,500*	
Subtotal				**$557,803**	
20% Contingency				**$111,561**	
Total Estimate				***$669,364***	

Table 20
References

Jeanerette Lumber & Shingle Co., LLC v. ConocoPhillips Company, et al.
Bayou Pigeon Oil & Gas Field
Iberia Parish, Louisiana

American Groundwater Trust, 2005. Arsenic and Ground Water, Consumer Awareness Information Pamphlet #13

Agency for Toxic Substances and Disease Registry (ATSDR), 2007. Toxicological Profile for Arsenic: U.S. Department of Health and Human Services, Public Health Service, Agency for Toxic Substances and Disease Registry.

EPA (1989). Risk Assessment Guidance for Superfund Volume I Human Health Evaluation Manual, Part A, EPA/540/1-89/002.

EPA (2000). Title 40, Code of Federal Regulations (40 CFR) Parts 9, 141, and 142. National Primary Drinking Water Regulations; Radionuclides; Final Rule.

EPA (2001). Radionuclides Rule: A Quick Reference Guide. EPA 816-F-01-003.

EPA (2002). Implementation Guidance for Radionuclides. EPA 816-F-00-002.

EPA (2002). Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10.

EPA (2009). Provisional Peer-Reviewed Toxicity Values for Complex Mixtures of Aliphatic and Aromatic Hydrocarbons. Superfund Technical Support Center. ORD/NCEA. Cincinnati, OH.

EPA (2015). ProUCL Version 5.1 Technical Guide. EPA/600/R-07/041.

EPA (2019). Title 40, Code of Federal Regulations (40 CFR), Part 141.

Hale, Lamar, Waldon, Michael Gene, Bryan, C. Frederick, and Richards, Paul A., 1999. Historic Patterns of Sedimentation in Grand Lake, Louisiana, Recent Research in Coastal Louisiana, 12 pgs.

Hvorslev, M.J., 1951. Time Lag and Soil Permeability in Ground-Water Observations, Bull. No. 36, Waterways Exper. Sta. Corps of Engrs, U.S. Army, Vicksburg, Mississippi, pp. 1-50.

LDEQ/LDOTD, 2002. Construction of Geotechnical Boreholes and Groundwater Monitoring Systems Handbook, 36 pgs.

Table 20
References

Jeanerette Lumber & Shingle Co., LLC v. ConocoPhillips Company, et al.
Bayou Pigeon Oil & Gas Field
Iberia Parish, Louisiana

Louisiana Administrative Code (LAC) (Amended through July 2017), Title 33, Part IX – Water Quality, Chapter 11. http://deq.louisiana.gov/assets/docs/Water/33v09-201707WaterQuality.pdf

Louisiana Department of Environmental Quality (LDEQ), 2019. Appendix A: Final 2018 Integrated Report of Water Quality in Louisiana.

LDEQ Geographic Information System (2021), Make a Map software designating Surface Water Quality subsegments.

LDEQ (2012). RECAP Frequently Asked Questions.

LDEQ (2008). Arsenic Sampling Results Explained, LDEQ Communications Memorandum.

LDEQ (2003). Risk Evaluation/Corrective Action Program (RECAP). LAC 33: I. Chapter 13. http://deq.louisiana.gov/page/recap

Louisiana Department of Health and Hospitals (LDHH), August 2004. Info Sheet: Arsenic and Private Wells, Office of Public Health, Baton Rouge, Louisiana, 1 pg.

LDHH, Undated. Public Information Series, Arsenic and Your Private Well, 2 pgs.

LDHH, Undated. Private Water Well Testing in Louisiana, Public Information Series Circular, 2 pgs.

LDHH, 2017. Louisiana Private Well Initiative - September 1, 2013 – August 31, 2016: A Summary Report. January 11, 2017, 12 pgs.

LDNR, 2010. General Water Quality Summary, Louisiana Groundwater Alluvial Aquifer Systems, April 14, 2010 Memorandum, 2 pgs.

LDNR, 2011. First Amended Memorandum of Understanding Between LDNR Office of Conservation and LDEQ Regarding Approval of RECAP Groundwater Evaluation and Remediation Plans at Oilfield Sites, February 25, 2011.

Louisiana Geological Survey (LGS), 2000. Louisiana Aquifer Recharge Potential, Map Number: 200001010, January 20, 2000.

Ori, L.V., Amacher, M.C., and Sedberry, J.E. Jr., 1993. Survey of the Total Arsenic Content in Soils in Louisiana, Commun. Soil Sci. Plant Anal., 24(17&18), pp 2321-2332.

Table 20
References

Jeanerette Lumber & Shingle Co., LLC v. ConocoPhillips Company, et al.
Bayou Pigeon Oil & Gas Field
Iberia Parish, Louisiana

Smedley, P.L. and Kinniburgh, D.G., 2002. A review of the source, behavior and distribution of arsenic in natural waters, Applied Geochemistry 17 (2002), pgs. 517-568.

Total Petroleum Hydrocarbon Criteria Working Group (TPHCWG) Series (Potter, T. and K. Simmons) (1998). Volume 2 Composition of Petroleum Mixtures.

Total Petroleum Hydrocarbon Criteria Working Group Series (Gustafson, J.B., J.G. Tell, and D. Orem) (1997). Volume 3 Selection of Representative TPH Fractions Based on Fate and Transport Considerations.

Total Petroleum Hydrocarbon Criteria Working Group Series (Edwards, D.A., M.D. Andriot, M.A. Amoruso, et al.) (1997). Volume 4 Development of Fraction Specific Reference Doses (RfD) and Reference Concentrations (RfC) for Total Petroleum Hydrocarbons (TPH).

Total Petroleum Hydrocarbon Criteria Working Group Series (Vorhees, D. and W. Weisman) (1997). Volume 5 Human Health Risk-Based Evaluation of Petroleum Contaminated Sites: Implementation of the Working Group Approach.

USDA, 1978. Soil Survey of Iberia Parish, United States Department of Agriculture Soil Conservation Service, 344 pp.

USDA, 2018, National Resource Conservation Service Web Soil Survey, https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm, accessed March 2021.

United States Geological Survey (USGS), 2017. Water Resources of Iberia Parish, Louisiana, Fact Sheet 2016-3100.

Yang, N., Winkel, L.H.E., and Johannesson, K.H., 2014. Predicting Geogenic Arsenic Contamination in Shallow Groundwater of South Louisiana, United States. Environmental Science and Technology, 48, pgs. 5660-5666.