

Table 1
Mississippi River Water Quality Results
USGS Site No. 07374525 (4/8/76-7/28/20)
HeroLands, L.L.C. vs. Chevron U.S.A. Inc., et al
Stella Oil and Gas Field
Plaquemines Parish, Louisiana

Constituent	Number of measurements	Number of detections	Max Result	Date of Max Result
Chloride, water, filtered, mg/L	352	352	17	7/8/1988
Sulfate, water, filtered, mg/L	352	352	10000	7/8/1988
Fluoride, water, filtered, mg/L	351	351	1500	7/8/1988
Arsenic, water, filtered, µg/L	351	351	11.7	7/24/2018
Orthophosphate, water, filtered, mg/L as phosphorus	348	348	0.3	10/15/1980
Total nitrogen [nitrate + nitrite + ammonia + organic-N], water, filtered, mg/L	349	347	4.5	5/10/1978
Phosphorus, water, filtered, mg/L as phosphorus	345	345	0.619	3/9/2011
Nitrate plus nitrite, water, unfiltered, mg/L as nitrogen	343	341	2.6	6/18/1980
Metribuzin, water, filtered, recoverable, µg/L	335	335	8010	9/1/1981
Phosphate, water, unfiltered, mg/L as PO4	330	330	3.03	6/13/2006
Phosphorus, water, unfiltered, mg/L as phosphorus	305	304	0.92	10/5/1983
Nitrate, water, unfiltered, mg/L as nitrogen	283	277	3.02	6/13/2006
Nitrite, water, filtered, mg/L as nitrite	283	277	13.4	6/13/2006
Vanadium, water, filtered, µg/L	260	260	4400	7/8/1988
Organic nitrogen, water, filtered, mg/L as nitrogen	337	244	2.5	6/18/1980
Selenium, water, filtered, µg/L	260	243	22	10/17/1988
Lead, water, filtered, µg/L	283	241	594	3/10/2020
Nitrite, water, unfiltered, mg/L as nitrogen	284	238	0.16	8/4/1988
Phosphorus, water, unfiltered, mg/L as PO4	284	238	0.526	8/4/1988
Ammonia (NH3 + NH4+), water, unfiltered, mg/L as nitrogen	330	230	2.2	9/5/1979
Nitrate, water, filtered, mg/L as nitrate	330	230	2.8	9/5/1979
Organic nitrogen, water, unfiltered, mg/L as nitrogen	222	221	3.6	7/13/1981
Cyanide, water, unfiltered, mg/L	193	193	9.29	12/8/2015
Zinc, water, filtered, µg/L	260	193	8	8/17/1983
Cadmium, water, filtered, µg/L	191	191	124	8/7/2012
Potassium-40, water, filtered, pCi/L	187	187	10	3/13/2018
Bis(2-ethylhexyl) phthalate, water, unfiltered, recoverable, µg/L	184	184	168	12/6/2016
Alachlor, water, filtered, recoverable, ng/L	194	180	250	3/9/2011
Fipronil, water, filtered, recoverable, µg/L	172	172	0.148	5/6/2014
Trihalomethanes, water, unfiltered, maximum summation, µg/L	134	134	0.395	2/7/2012
Ammonia (NH3 + NH4+), water, filtered, mg/L as nitrogen	221	132	2.2	9/5/1979
Gross alpha radioactivity, water, filtered, natural uranium curve, pCi/L	124	124	3	6/23/2020
Bromodichloromethane, water, unfiltered, recoverable, µg/L	147	117	40000	5/9/1981
Fecal streptococci, KF streptococcus MF method, water, colony forming units per 100 mL	152	96	5400	10/25/1978
Ammonia (NH3 + NH4+), water, filtered, mg/L as NH4	96	93	0.38	1/14/1981
Nitrite, water, filtered, mg/L as nitrogen	95	91	0.31	1/14/1981
Prometryn, water, filtered, recoverable, µg/L	90	89	0.327	3/4/2009
Heptachlor epoxide, water, unfiltered, recoverable, µg/L	90	88	0.906	6/14/2010
Hexachlorobenzene, water, unfiltered, recoverable, µg/L	90	88	1.58	5/17/2007
1-Naphthol, water, filtered (0.7 micron glass fiber filter), recoverable, µg/L	90	86	0.306	6/13/2006
Particulate nitrogen to particulate organic carbon mass ratio, number	83	83	126	3/10/2015
Azinphos-methyl, water, filtered, recoverable, ng/L	82	79	1390	5/23/2017
Molinate, water, filtered, recoverable, ng/L	82	78	1820	6/7/2016
Deiodo flubendiamide, water, filtered, recoverable, ng/L	82	78	46.9	7/29/2014
Hydroxyphthalazinone, water, filtered, recoverable, ng/L	82	78	63.7	7/29/2014
Metribuzin, water, filtered, recoverable, ng/L	83	76	975	7/14/2015
2-Hydroxy-4-isopropylamino-6-ethylamino-s-triazine, water, filtered, recoverable, ng/L	81	72	27.6	7/12/2016
Nitrate plus nitrite, water, filtered, mg/L as nitrogen	68	68	2.8	5/15/1992
Thiobencarb, water, filtered, recoverable, ng/L	82	67	400	1/14/2014
cis-Cyhalothric acid, water, filtered, recoverable, ng/L	82	67	308	5/23/2017
Omethoate, water, filtered, recoverable, ng/L	82	67	179	6/18/2013
Molybdenum, water, filtered, µg/L	102	66	240	7/8/1988
Cyanazine, water, filtered, recoverable, ng/L	80	65	45.5	7/29/2014
Mercury, water, filtered, µg/L	65	65	20	5/10/1978
Dimethenamid oxanilic acid, water, filtered, recoverable, ng/L	78	63	133	6/18/2013
Desamino-diketo metribuzin, water, filtered, recoverable, ng/L	77	58	97.2	6/9/2014
Chlorosulfonamide acid, water, filtered, recoverable, ng/L	79	57	164	5/23/2017
Total nitrogen [nitrate + nitrite + ammonia + organic-N], water, unfiltered, mg/L as nitrate	51	51	1.6	7/13/1981
Fipronil, water, filtered, recoverable, ng/L	82	50	38.4	6/4/2013
Sulfometuron-methyl, water, filtered, recoverable, ng/L	79	49	229	7/14/2015
2-Chloro-4-isopropylamino-6-amino-s-triazine, water, filtered, recoverable, µg/L	90	48	0.022	9/21/2006
Propoxur, water, filtered, recoverable, ng/L	79	48	15.5	6/4/2013
Carbendazim, water, filtered, recoverable, ng/L	82	47	304	6/18/2013
Metalaxyl, water, filtered, recoverable, ng/L	80	46	45.9	8/15/2017
Methyl paraoxon, water, filtered, recoverable, ng/L	78	46	9.42	1/24/2018
2-Chloro-N-(2-ethyl-6-methylphenyl)acetamide, water, filtered, recoverable, ng/L	82	44	527	5/23/2017
Metribuzin DK, water, filtered, recoverable, ng/L	81	42	232	5/23/2017
2-Aminobenzimidazole, water, filtered, recoverable, ng/L	81	39	733	3/10/2015
Ammonia plus organic nitrogen, water, unfiltered, mg/L as nitrogen	38	38	2.1	6/18/1980

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Alpha radioactivity 2-sigma combined uncertainty, water, filtered, natural uranium curve, µg/L	38	38	4	7/8/2020
Propyzamide, water, filtered, recoverable, ng/L	75	34	7.87	10/23/2012
Prometon, water, filtered, recoverable, µg/L	67	32	0.037	6/8/2011
Alkalinity, water, filtered, fixed endpoint (pH 4.5) titration, laboratory, mg/L as calcium carbonate	34	32	2.8	10/5/1983
Uranium (natural), water, filtered, µg/L	33	31	0.29	10/3/1985
Tebuthiuron Transformation Product 108, water, filtered, recoverable, ng/L	81	31	5.94	6/20/2017
Desamino metribuzin, water, filtered, recoverable, ng/L	81	30	5.82	6/17/2014
Metolachlor sulfonic acid, water, filtered, recoverable, ng/L	83	30	679	7/14/2015
Terbutylazine, water, filtered, recoverable, µg/L	30	29	18	1/18/1978
Cyfluthrin, water, filtered, recoverable, µg/L	29	29	12000	6/18/1980
Acetochlor, water, filtered, recoverable, µg/L	90	28	0.025	6/25/2007
delta hydrogen-2/hydrogen-1, water, unfiltered, per mil	28	28	4.5	1/10/1980
Glufosinate, water, filtered (0.7 micron glass fiber filter), recoverable, µg/L	27	27	0.55	7/29/2014
Bromacil, water, filtered, recoverable, ng/L	80	27	15.4	7/12/2016
1H-1,2,4-Triazole, water, filtered, recoverable, ng/L	81	26	11.2	7/11/2017
Gross beta radioactivity, water, filtered, Sr-90/Y-90 curve, pCi/L	30	26	19	3/8/1979
Orthophosphate, water, filtered, mg/L as PO4	25	25	0.83	4/25/1979
Diazoxon, water, filtered, recoverable, ng/L	78	25	10.7	6/4/2013
Acetochlor sulfonic acid, water, filtered, recoverable, ng/L	83	25	709	6/18/2013
Iron, water, filtered, µg/L	24	24	19000	6/28/1984
Manganese, water, filtered, µg/L	24	24	710	6/28/1984
Nicosulfuron, water, filtered, recoverable, ng/L	79	23	52	7/24/2018
Ammonia plus organic nitrogen, water, filtered, mg/L as nitrogen	22	22	2.73	5/15/1992
Chromium, water, filtered, µg/L	22	22	110	6/28/1984
Copper, water, unfiltered, recoverable, µg/L	22	22	110	4/17/1980
Manganese, water, unfiltered, recoverable, µg/L	22	22	580	12/7/1982
Zinc, water, unfiltered, recoverable, µg/L	22	22	220	10/7/1981
Antimony, water, filtered, µg/L	22	22	67	6/28/1984
Simazine, water, filtered, recoverable, ng/L	80	22	57.8	6/4/2013
Bromoxynil, water, filtered, recoverable, ng/L	81	22	22.5	8/14/2018
Arsenic, water, unfiltered, µg/L	21	20	4	10/3/1979
Chromium, water, unfiltered, recoverable, µg/L	20	20	20	10/12/1977
Iron, water, unfiltered, recoverable, µg/L	20	20	16000	7/13/1981
Aminomethylphosphonic acid, water, filtered (0.7 micron glass fiber filter), recoverable, µg/L	21	20	13	1/24/2007
Acetochlor sulfanylacetic acid, water, filtered, recoverable, ng/L	83	20	551	7/29/2014
Dimethenamid, water, filtered, recoverable, ng/L	74	20	54.5	6/2/2015
Imazamox, water, filtered, recoverable, ng/L	80	20	10.2	6/4/2013
Nitrate, water, filtered, mg/L as nitrogen	22	19	0.09	5/7/1991
Beryllium, water, filtered, µg/L	23	19	300	4/17/1980
Fecal coliforms, M-FC MF (0.7 micron) method, water, colony forming units per 100 mL	36	19	500	8/20/2008
Fluometuron, water, filtered, recoverable, ng/L	83	19	8.68	10/23/2012
2-(1-Hydroxyethyl)-6-methylaniline, water, filtered, recoverable, ng/L	82	19	87.4	6/17/2014
Barium, water, unfiltered, recoverable, µg/L	18	18	250	4/17/1980
Lead, water, unfiltered, recoverable, µg/L	19	18	280	7/9/1980
Hydroxylalchlor, water, filtered, recoverable, ng/L	82	18	60.9	7/24/2018
3-Phenoxybenzoic acid, water, filtered, recoverable, ng/L	82	18	30.8	6/18/2013
Pyraclostrobin, water, filtered, recoverable, ng/L	77	17	19.7	8/15/2017
Acetochlor, water, filtered, recoverable, ng/L	82	17	30.8	8/15/2017
Tebuthiuron Transformation Product 109 (OH), water, filtered, recoverable, ng/L	82	17	33.8	8/20/2013
Cobalt, water, filtered, µg/L	23	16	30	6/28/1984
Selenium, water, unfiltered, µg/L	16	16	1	7/10/1979
2-Chloro-2',6'-diethylacetanilide, water, filtered, recoverable, ng/L	81	16	427	7/14/2015
Mercury, water, unfiltered, recoverable, µg/L	16	16	0.5	7/13/1981
2,6-Diethylaniline, water, filtered (0.7 micron glass fiber filter), recoverable, µg/L	90	16	0.029	5/7/1997
Silver, water, unfiltered, recoverable, µg/L	15	15	1	1/18/1978
Cadmium, water, unfiltered, µg/L	13	13	26	10/12/1977
Terbutylazine, water, filtered, recoverable, ng/L	81	13	7.82	6/20/2017
Cobalt, water, unfiltered, recoverable, µg/L	13	12	7	12/21/1982
Molybdenum, water, unfiltered, recoverable, µg/L	79	12	10	2/23/1995
Strontium, water, filtered, µg/L	26	12	1	6/28/1984
Acetochlor oxanilic acid, water, filtered, recoverable, ng/L	82	12	13.9	5/23/2017
Lactofen, water, filtered, recoverable, ng/L	82	12	28.8	6/18/2013
Orthophosphate, water, unfiltered, mg/L as phosphorus	12	12	98	6/21/2016
Nickel, water, unfiltered, recoverable, µg/L	11	11	16	7/13/1981
Gross beta radioactivity, water, filtered, Cs-137 curve, pCi/L	10	10	5	4/28/1983
Dieldrin, water, unfiltered, recoverable, µg/L	12	10	2.7	1/28/1983
Methidathion, water, filtered, recoverable, µg/L	67	10	0.012	6/21/2011
EPTC degradate R248722, water, filtered, recoverable, ng/L	81	10	10.3	6/17/2014
Total coliforms, M-Endo MF method, immediate, water, colony forming units per 100 mL	9	9	0.44	11/17/2006
Fecal coliforms, M-FC MF (0.45 micron) method, water, colony forming units per 100 mL	15	9	10000	10/15/1980

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Dicrotophos, water, filtered, recoverable, µg/L	9	9	46	11/17/2006
Gross alpha radioactivity, water, filtered, natural uranium curve, µg/L	9	9	1.6	10/3/1985
Aluminum, water, unfiltered, recoverable, µg/L	10	8	0.315	9/4/2007
p,p'-DDE, water, unfiltered, recoverable, µg/L	12	8	3.9	1/28/1983
Dimethenamid sulfinylacetic acid, water, filtered, recoverable, ng/L	82	8	50.8	7/24/2018
Sulfosulfuron, water, filtered, recoverable, ng/L	80	8	3.52	4/23/2013
Alpha radioactivity 2-sigma combined uncertainty, water, filtered, Th-230 curve, pCi/L	8	8	2	11/7/1991
Beta radioactivity 2-sigma combined uncertainty, water, filtered, Cs-137 curve, pCi/L	8	8	0.9	11/7/1991
Uranium (natural) 2-sigma combined uncertainty, water, filtered, µg/L	8	8	1.4	5/15/1992
cis-Propiconazole, water, filtered, recoverable, µg/L	8	8	1.3	5/15/1992
Lithium, water, filtered, µg/L	7	7	11000	6/28/1984
p,p'-DDD, water, unfiltered, recoverable, µg/L	12	7	6	12/7/1982
alpha-Endosulfan, water, unfiltered, recoverable, µg/L	12	7	0.9	12/21/1982
Malathion, water, unfiltered, recoverable, µg/L	12	7	68	12/7/1982
Pheophytin a, phytoplankton, µg/L	88	7	0.008	12/6/2010
Malathion, water, filtered, recoverable, ng/L	81	7	1.38	6/16/2015
Asulam, water, filtered, recoverable, ng/L	82	7	1.95	6/4/2013
Beta radioactivity 2-sigma combined uncertainty, water, filtered, Sr-90/Y-90 curve, pCi/L	8	7	2.1	11/7/1991
Propachlor, water, filtered, recoverable, µg/L	67	6	0.007	10/25/2010
Total nitrogen [nitrate + nitrite + ammonia + organic-N], water, filtered, analytically determined, mg/L	6	6	0.6	9/4/2007
Tetraconazole, water, filtered, recoverable, ng/L	82	6	4.51	12/12/2017
Dichlorprop, water, unfiltered, recoverable, µg/L	6	6	-4.95	8/23/2016
Copper, water, filtered, µg/L	24	5	10	12/21/1982
Trifloxystrobin, water, filtered, recoverable, ng/L	82	5	1.54	4/2/2014
Prometon, water, filtered, recoverable, ng/L	82	5	13.1	12/4/2013
Silver, water, filtered, µg/L	7	4	20	2/15/1985
p,p'-DDT, water, unfiltered, recoverable, µg/L	12	4	6.4	12/21/1982
Desulfinylfipronil, water, filtered, recoverable, ng/L	83	4	6.34	4/22/2015
sec-Alachlor oxanilic acid, water, filtered, recoverable, ng/L	81	4	75.2	7/24/2018
Demethyl hexazinone B, water, filtered, recoverable, ng/L	82	3	5.48	6/7/2016
Dimethenamid sulfonic acid, water, filtered, recoverable, ng/L	83	3	48.8	7/24/2018
Dimethoate, water, filtered (0.7 micron glass fiber filter), recoverable, µg/L	90	3	0.004	5/17/2011
Molinate, water, filtered (0.7 micron glass fiber filter), recoverable, µg/L	90	3	0.017	3/26/2008
Pendimethalin, water, filtered (0.7 micron glass fiber filter), recoverable, µg/L	90	3	0.0038	4/3/2012
Fonofos, water, filtered, recoverable, µg/L	90	2	0.079	5/7/1997
Chlordane (technical), water, unfiltered, recoverable, µg/L	12	2	0.1	12/21/1982
Methyl parathion, water, unfiltered, recoverable, µg/L	90	2	0.0098	5/7/1997
Imazaquin, water, filtered, recoverable, ng/L	82	2	4.3	6/7/2016
Fipronil sulfide, water, filtered, recoverable, ng/L	83	2	2.86	8/19/2014
Metconazole, water, filtered, recoverable, ng/L	83	2	3.17	7/12/2016
2,4-D, water, filtered, recoverable, ng/L	80	2	119	1/16/2013
Carboxy molinate, water, filtered, recoverable, ng/L	81	2	2.91	4/9/2013
Didemethyl hexazinone F, water, filtered, recoverable, ng/L	82	2	4.16	6/9/2014
Diflufenzopyr, water, filtered, recoverable, ng/L	82	2	3.14	4/7/2015
Fipronil sulfonate, water, filtered, recoverable, ng/L	83	2	1.64	6/17/2014
Pymetrozine, water, filtered, recoverable, ng/L	80	2	3.99	6/6/2017
Hexazinone Transformation Product G, water, filtered, recoverable, ng/L	83	2	9.2	7/16/2013
Total nitrogen [nitrate + nitrite + ammonia + organic-N], water, unfiltered, mg/L	1	1	4.96	3/9/1978
Nickel, water, filtered, µg/L	1	1	25	2/15/1985
Aluminum, water, filtered, µg/L	1	1	2500	2/15/1985
Butylate, water, filtered, recoverable, µg/L	67	1	0.017	10/25/2010
Radium-226, water, filtered, radon method, pCi/L	1	1	5.3	4/22/1993
Toluene, water, unfiltered, recoverable, µg/L	1	1	1	2/25/1981
Lindane, water, unfiltered, recoverable, µg/L	12	1	0	9/28/1977
Lindane, water, filtered, recoverable, µg/L	5	1	0	10/12/1977
Dieldrin, water, filtered, recoverable, µg/L	5	1	0	10/12/1977
Ethion, water, unfiltered, recoverable, µg/L	12	1	0	9/28/1977
Toxaphene, water, unfiltered, recoverable, µg/L	12	1	0	9/28/1977
Heptachlor, water, unfiltered, recoverable, µg/L	12	1	0	9/28/1977
Metolachlor, water, filtered, recoverable, µg/L	12	1	0	9/28/1977
p,p'-Methoxychlor, water, unfiltered, recoverable, µg/L	12	1	0	9/28/1977
PCBs, water, unfiltered, recoverable, µg/L	12	1	0	9/28/1977
Malathion, water, filtered, recoverable, µg/L	12	1	0	9/28/1977
Parathion, water, unfiltered, recoverable, µg/L	90	1	0.005	5/7/1997
Parathion, water, filtered, recoverable, µg/L	12	1	0	9/28/1977
Diazinon, water, filtered, recoverable, µg/L	12	1	0	9/28/1977
Atrazine, water, filtered, recoverable, µg/L	12	1	0	9/28/1977
2,4,5-T, water, unfiltered, recoverable, µg/L	1	1	0	9/28/1977
Mirex, water, unfiltered, recoverable, µg/L	1	1	0	9/28/1977
Carbophenothion, water, unfiltered, recoverable, µg/L	1	1	0	9/28/1977
Methyl trithion, water, unfiltered, recoverable, µg/L	12	1	0	9/28/1977
Alachlor, water, filtered, recoverable, µg/L	12	1	0	9/28/1977

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Thallium, suspended sediment, dry weight, milligrams per kilogram	1	1	1.26	3/9/1978
Halosulfuron methyl, water, filtered, recoverable, ng/L	82	1	4.44	4/23/2013
Fipronil sulfone, water, filtered, recoverable, µg/L	88	1	0.006	3/9/2011
Carbofuran, water, filtered, recoverable, ng/L	82	1	16.5	5/7/2013
EPTC, water, filtered, recoverable, ng/L	82	1	2.08	2/19/2013
Hexazinone, water, filtered, recoverable, ng/L	82	1	1.22	4/2/2014
Azoxystrobin, water, filtered, recoverable, ng/L	82	1	0.87	5/5/2015
Propanil, water, filtered, recoverable, ng/L	82	1	0.54	6/2/2015
Disulfoton, water, filtered, recoverable, ng/L	1	1	0.011	6/9/2014
3-Hydroxy carbofuran, water, filtered, recoverable, ng/L	82	1	1.5	6/21/2016
Alachlor sulfinylacetic acid, water, filtered, recoverable, ng/L	83	1	19.3	7/24/2018
Disulfoton oxon, water, filtered, recoverable, ng/L	83	1	23	1/14/2014
Indoxacarb, water, filtered, recoverable, ng/L	82	1	3.3	4/23/2013
Sulfosulfuron ethyl sulfone, water, filtered, recoverable, ng/L	82	1	0.88	12/4/2013
Chlorophyll a, phytoplankton, chromatographic-fluorometric method, µg/L	1	1	126000	3/9/1978
Ammonia (NH3 + NH4+), water, unfiltered, mg/L as NH4	1	1	126000	3/9/1978
Ethion, water, filtered, recoverable, µg/L	4	1	0	10/12/1977
EPTC, water, filtered (0.7 micron glass fiber filter), recoverable, µg/L	90	1	0.007	12/6/2010
DCPA, water, filtered (0.7 micron glass fiber filter), recoverable, µg/L	90	1	0.004	5/7/1997
Napropamide, water, filtered (0.7 micron glass fiber filter), recoverable, µg/L	90	1	0.008	5/7/1997

Notes:

Data obtained from USGS Water Mapper
(<https://maps.waterdata.usgs.gov/mapper/index.html>)
USGS Site Number: 07374525
USGS Name: Mississippi River at Belle Chasse, LA
Only data with detections are shown

Table 2
Oil and Gas Well History for Onsite Wells and Wells Listed in the Petition
HeroLands Company, L.L.C. vs. Chevron U.S.A. Inc. et al
Stella Oil Gas Field
Plaquemines Parish, Louisiana

Well Serial	Well Name	Well Num	Total Depth	Spud Date	P&A Date	Well Status	Operator History
23660	Delta Minerals 7 Lease	001	10,807	2/10/1940	5/30/1943	Plugged and Abandoned - oil	1/17/1940 - California Company
24122*	7000 SU 137 Delta Minerals 5	001	10,198	6/1/1940	4/3/1974	Plugged and Abandoned - oil	4/23/1940 - The California Co. 8/13/1965 - Chevron Oil Company 10/7/1971 - Energy Corp of America 2/27/1976 - Energy Corp. of America, Inc.
25770	7000 SU 122; Delta Minerals 5	002	A-	4/25/1941	11/6/2003	Plugged and Abandoned - No Product Specified	4/14/1941 - The California Co. 8/26/1965 - Chevron Oil Company 10/7/1971 - Energy Corp of America 2/27/1976 - Energy Corp. of America, Inc. 2/28/1992 - McGowan Working Partners 1/1/2001 - McGowan Working Partners, Inc.
26120	Delta Minerals 4 SWD	001	7,647	8/16/1941	-	Active Injection - Produced Salt Water	6/20/1941 - The California Co. 7/7/1965 - Chevron Oil Company 10/5/1971 - Energy Corp of America 2/27/1976 - Energy Corp. of America, Inc. 2/1/1992 - McGowan Working Partners 1/1/2001 - McGowan Working Partners, Inc.
27622	7000 SU 124; SL 458	003	7,657	6/22/1942	-	Active - Producing Oil	6/22/1942 - The California Co. 8/13/1965 - Chevron Oil Company 10/7/1971 - Energy Corp of America 2/27/1976 - Energy Corp. of America, Inc. ? - McGowan Working Partners, Inc
27853*	Delta Mills LSE 4 Unit 98	002	6,346	9/14/1942	10/24/1942	Dry and Plugged	8/25/1942 - The California Co.
31776	6700 SU 124 Delta Minerals 5	003	10,302	6/1/1946	5/8/1974	Plugged and Abandoned - oil	5/14/1946 - The California Company 8/13/1965 - Chevron Oil Company 10/7/1971 - Energy Corp of America 2/27/1976 - Energy Corp. of America, Inc.
33835*	6550 SU 124 SL 485	004	7,681	8/24/1947	4/29/1974	Plugged and Abandoned - oil	8/8/1947 - The California Company 8/13/1965 - Chevron Oil Company 10/7/1971 - Energy Corp of America 2/27/1976 - Energy Corp. of America, Inc.
34195	Delta Minerals Inc. 5	004	7,536	10/24/1947	-	Reverted to Single Completion - No Product Specified	10/6/1947 - The California Company 8/13/1965 - Chevron Oil Company 4/1/1975 - Energy Corporation of America, Inc 2/27/1976 - Energy Corp. of America, Inc. ? - McGowan Working Partners, Inc
39139*	6550 SU99 DELTA MIN	001	7,031	10/10/1949	2/12/1975	Plugged and Abandoned	9/26/1949 - W.B. Jayred 1/10/1950 - Gallery & Hurt 10/25/1951 - W. B. Jayred 8/7/1963 - Jayred Oil & Gas Co. 9/14/66 - Marine Properties, Inc. 11/2/1949 - W.B. Jayred
39390*	SL 458 SWD	001	7,230	11/2/1949	11/3/2003	Plugged and Abandoned	3/24/1969 - Marine Properties, Inc. 6/4/1991 - Energy Self-service Oil, Inc.
48152	Alfred O Hero Jr et al	1	11,554	3/10/1953	12/1/1976	Plugged and Abandoned - Oil	3/4/1953 - F.A. Callery, Inc.

Table 2
Oil and Gas Well History for Onsite Wells and Wells Listed in the Petition
HeroLands Company, L.L.C. vs. Chevron U.S.A. Inc. et al
Stella Oil Gas Field
Plaquemines Parish, Louisiana

Well Serial	Well Name	Well Num	Total Depth	Spud Date	P&A Date	Well Status	Operator History
52574*	6550 SU 113 S L 458	002A	7,230	6/22/1954	1/21/1975	Plugged and Abandoned	6/14/1954 - W.B. Jayred 8/7/1963 - Jayred Oil & Gas Co. 1/11/1971 - W.B. Jayred
53240*	7000 SU 100; S L 458	003-A	7,260	1/25/1955	3/30/1980	Plugged and Abandoned	8/12/1954 - W.B. Jayred 8/7/1963 - Jayred Oil & Gas Co. 1/11/1971 - W.B. Jayred
56711*	7000 SU110;DELTA MINERALS	002-A	7,200	5/19/1955	9/3/2011	Plugged and Abandoned	5/18/1955 - W.B. Jayred 8/7/1963 - Jayred Oil & Gas Co. 1/11/1971 - W.B. Jayred 9/1/1982 - Coalinga Corporation 10/25/1983 - Equitable Petroleum Corp. 2/28/1992 - McGowan Working Partners 5/23/2001 - McGowan Working Partners, Inc
57208*	NUMA HERO ET AL	004	11,532	7/9/1955	9/8/2003	Plugged and Abandoned	6/27/1955 - Natural Gas and Oil Co. - W.C. Feazel 1/6/1959 - Natural Gas & Oil Co. Mississippi River Fuel Corp 12/3/1960 - Natural Gas and Oil Corp. 5/8/1963 - Mississippi River Fuel Corp 7/15/1966 - Natural Gas & Oil Corporation 11/7/1973 - American Petrofina Co. of Texas 1/17/1980 - Mullins & Prichard 11/11/1981 - Petroleum Corporation of Texas 2/18/1983 - Damson Oil Corp. 4/28/1989 - Energy Self-Service Oils, Inc. 1/3/1995 - SMC Oil & Gas, Inc
58821	State Lease 458	001	9,244	11/22/1955	5/17/2019	Dry and Plugged	10/24/1955 - Natural Frazel
61430	Delta Minerals	003-A	7090	35202	-	PA35 Temporay Inactive Well to be Omitted from Prod. Report - Oil	5/10/1956 - W.B. Jayred 8/7/1963 - Jayred Oil & Gas Co. 1/11/1971 - H.B. Jayred 9/1/1982 - Coalinga Corporation 10/25/1983 - Equitable Petroleum Corp.
61776*	6550 SU98; DELTA MINERALS	004-A	7089	6/10/1956	3/10/1972	Plugged and Abandoned	6/6/1956 - W.B. Jayred 8/7/1963 - Jayred Oil & Gas Co. 1/11/1971 - W.B. Jayred
64741*	CIB OP RA SUA;NUMA HERO ET AL	2	13424	1/28/1957	6/8/1988	Plugged and Abandoned	Ownership changes not documented in well file. Operators with proof of date of operation include: 4/9/1957 - Nat. Gas & Oil Co 7/29/1977 - American Petrofina Company of Texas 1/20/1981 - Mullins & Prichard 9/6/1983 - Petroleum Corporation of Texas 2/27/1984 - Riverwood Production, Co., Inc
70470*	Delta Minerals SWD	005-A	7,100	6/8/1958	-	Active Injection - No Product Specified	5/16/1958 - W.B. Jayred 8/7/1963 - Jayred Oil & Gas Co. 1/11/1971 - W.B. Jayred 9/1/1982 - Coalinga Corpation 10/3/1983 - Equitable Petroleum Corp 6/15/1989 - Energy Self-Service Oils, Inc. 10/1/1994 - SMC Oil & Gas, Inc. Date Unsure - Key Operating Company 1/1/2015 - Three Rivers Operating, LLC 12/1/2016 - SEI Operating, LLC

Table 2
Oil and Gas Well History for Onsite Wells and Wells Listed in the Petition
HeroLands Company, L.L.C. vs. Chevron U.S.A. Inc. et al
Stella Oil Gas Field
Plaquemines Parish, Louisiana

Well Serial	Well Name	Well Num	Total Depth	Spud Date	P&A Date	Well Status	Operator History
82455*	SU 111; Delta Minerals 4	002	6,825	12/20/1960	-	PA35 Temporary Inactive Well to be Omitted from Prod. Report - Oil	12/2/1960 - The California Company
							8/13/1965 - Chevron Oil Company
							10/7/1971 - Energy Corp of America
							2/27/1976 - Energy Corp. of America, Inc.
							2/1/1992 - McGowan Working Partners
							1/1/2001 - McGowan Working Partners, Inc.
82876	Delta Minerals 5 SWD	004-D	7,532	10/24/1947	-	Active Injection - No Product Specified	1/4/1961 - The California Company
							8/13/1965 - Chevron Oil Company
							10/7/1971 - Energy Corp of America
							2/27/1976 - Energy Corp. of America, Inc.
							2/1/1992 - McGowan Working Partners
							1/1/2001 - McGowan Working Partners, Inc.
83094	6550 SU 124; SL 458	003-D	7,656	1/24/1961	-	PA35 Temporary Inactive Well to be Omitted from Prod. Report - Oil	1/24/1961 - The California Company
							8/13/1965 - Chevron Oil Company
							10/7/1971 - Energy Corp of America
							2/27/1976 - Energy Corp. of America, Inc.
							2/1/1992 - McGowan Working Partners
							1/1/2001 - McGowan Working Partners, Inc.
83189*	7000 SU 111; Delta Minerals 4	002-D	6,825	12/20/1960	-	Active - Producing Oil	1/31/1961 - The California Company
							8/13/1965 - Chevron Oil Company
							10/7/1971 - Energy Corp of America
							2/27/1976 - Energy Corp. of America, Inc.
							2/1/1992 - McGowan Working Partners
							1/1/2001 - McGowan Working Partners, Inc.
86313	6700 SU 122 Delta Minerals 5	005	6,850	9/10/1961	1/13/1975	Plugged and Abandoned oil	8/25/1961 - The California Company
							8/13/1965 - Chevron Oil Company
							10/7/1971 - Energy Corp of America
							2/27/1976 - Energy Corp. of America, Inc.
87348	6550 SU 122; Delta Minerals 5	005-D	6,850	9/10/1961	1/3/1975	Plugged and Abandoned oil	10/27/1961 - The California Company
							8/13/1965 - Chevron Oil Company
							10/7/1971 - Energy Corp of America
							2/27/1976 - Energy Corp. of America, Inc.
105755							
123579	6550 SU 98; Delta Minerals	006A	7,108	4/16/1968	3/8/1972	Plugged and Abandoned oil	3/1/1968 - Jayred Oil & Gas Co.
							1/11/1971 - W.B. Jayred
131144	7500 SU 99; Delta Minerals	002	NA	-	-	Permit Expired	11/12/1969 - Marine Prop. & Energy Corp
134016	6500 SU 99; Delta Minerals	001	7,644	9/12/1970	1/27/1975	Plugged and Abandoned oil	8/4/1790 - Marine Properties, Inc.
149727	Numa C Hero et al	001	10,500	8/20/2001	-	Orphan Well - ENG	8/28/1975 - Birthright O & G Co. & Petr. Corp.
160111	7000 SU 123; Delta Minerals 5	006	9,000	12/13/1978	-	Shut-In Productive - Future Utility	7/11/1978 - Energy Corporation of America Inc
							1/1/2001 - McGowan Working Partners, Inc.

Table 2
Oil and Gas Well History for Onsite Wells and Wells Listed in the Petition
HeroLands Company, L.L.C. vs. Chevron U.S.A. Inc. et al
Stella Oil Gas Field
Plaquemines Parish, Louisiana

Well Serial	Well Name	Well Num	Total Depth	Spud Date	P&A Date	Well Status	Operator History
167886	Delta Minerals 4 SWD	002	7,320	4/4/1980	-	Active Injection - No Product Specified	3/24/1980 - W B Jayred 12/6/1985 - Equitable Petroleum Corp 2/1/1992 - McGowan Working Partners 1/1/2001 - McGowan Working Partners, Inc.
169605	6300 RA SU 364; N C Hero et al	001	7,952	10/6/1980	11/7/1989	Plugged and Abandoned oil	7/1/1980 - V Monte Currie, Jr. 7/3/1980 - V Monte Currie, Jr. 9999 7/3/1980 - ADCO Producing Co, Inc. 3/25/1985 - Smith Petroleum Company 10/13/1989 - V Monta Currie, Jr
175613	MIO RA SUA; Numa C Hero	001	10,500	6/15/1981	2/17/2020	Plugged and Abandoned oil	6/3/1981 - Graham Exploration, Ltd. 9999 11/1/1993 - P & P Producing Inc. 1/1/1995 - Parker & Parsley Devpt L P 9/1/1997 - Pioneer Natural Res. USA, Inc. 2/3/1998 - Sheridan Energy, Inc.
177783	6300 RA SU 76; N C Hero	002	6,944	1/17/1982	-	Active - Producing Oil	9/17/1981 - V. Monta Currie, Jr.
182439	CIB OP SUC; Hero et al	002	13,500	-	-	Permit Expired	8/9/1982 - Graham Exploration, Ltd. 2177
184866	Numa C Hero et al	002	11,904	4/11/1983	10/22/2003	Plugged and Abandoned oil	8/5/1982 - Graham Exploration Ltd. 5/7/1990 - Energy Self-service oil, Inc.
193214							
206750	Numa C Hero	001	10,310	9/13/1987	9/24/2003	Plugged and Abandoned oil	7/1/1987 - Kele Exploration, Inc. 6/5/1990 - Energy Self-Service Oils, Inc.
207392	Numa C Hero	002	7,700	12/3/1987	9/23/2003	Plugged and Abandoned oil	10/22/1987 - Kele Exploration, Inc. 6/5/1990 - Energy Self-Service Oils, Inc. 11/01/1992 - Magnum Minerals, Inc.
214584	7500 RA SUA; Delta Minerals 5	007	7,600	5/20/1992	-	PA-35 Temporary Inactive well to be omitted from Prod. Report	5/20/1992 - McGowan Working Partners, Inc. 1/1/2001 - McGowan Working Partners
224506	Hero Lands Company	1	7,550	-	-	Permit Expired	6/30/2000 - Stella Oil & Gas, LLC
226851	6500 RA SUA; Hero Lands Co	001	7,000	3/25/2002	-	Active - Producing Oil	12/27/01 - Paxton Oil Company
228392	Hero Lands Co	005	13,000	10/1/2003	-	Active - Producing Oil	6/18/2003 - Manti Operating Company 3/23/2005 - Wagner Oil Company 1/1/2015 - McGowan Working Partners, Inc.
234213	Hero Lands Co	006	11,010	1/6/2007	-	Shut-In Productive - Future Utility	09/18/2006 - Wagner Oil Company 2/26/2015 - McGowan Working Partners, Inc.
971162	N C Hero et al SWD	001	2,458	8/18/1983	-	Active Injection - No Product Specified	7/29/1983 - V. Monta Currie, Jr. 7/1/2007 - McGowan Working Partners, Inc.

Notes:
Information from LDNR files.
* - Not inside property boundary

Table 3
LDNR Lease Facility Inspection Reports Summary
HeroLands, L.L.C. vs. Chevron U.S.A. Inc., et al
Stella Oil and Gas Field
Plaquemines Parish, Louisiana

Well SN	Operator	Inspection Date	In Compliance?	Remarks
26120	McGowan Working Partners, Inc.	6/14/2007	No	E&P Waste Discharge - Live Oil Fire Hazard, E&P Waste Discharge
		8/9/2007	Yes	
		1/23/2009	Yes	
		4/11/2013	Yes	
		4/21/2015	Yes	
		11/29/2016	Yes	
27622	Energy Corp of America Inc	6/20/1986	No	Stock tanks should be sealed properly, vent line should extend beyond firewall, clean up bstw from within firewall
		9/4/1986	Yes	
	McGowan Working Partners, Inc.	8/19/1998	Yes	
		5/11/1999	Yes	
		4/28/2000	Yes	
		10/21/2005	Yes	Don't see any hurricane damage
		2/8/2007	Yes	
		6/14/2007	No	Well Site, Tank Battery, Fire Hazard, and Discharge of E&P Deficiency
		8/9/2007	Yes	
		11/6/2008	Yes	
		1/26/2009	Yes	
		4/1/2011	Yes	
		3/12/2013	Yes	
		3/22/2016	Yes	
2/6/2019	Yes			
34195	McGowan Working Partners, Inc.	8/14/2007	Yes	
58821	Inactive Operator	10/26/2007	No	No well site ID, Well P&A'd prior to 1986 rule change
61430	McGowan Working Partners, Inc.	3/25/2002	No	No ID sign, overgrown vegetation, no tank battery
		7/16/2002	No	No ID sign, overgrown vegetation, no tank battery, appears to be an abandoned lease
	Paxton Oil Co.	10/30/2002	Yes	This well will be converted into a SWD
		4/2/2019	No	No wellsite ID
82876	McGowan Working Partners, Inc.	3/14/2007	Yes	
		6/14/2007	Yes	
		8/14/2007	Yes	
		11/6/2008	Yes	
		1/26/2009	Yes	
		2/28/2012	Yes	
		7/29/2014	Yes	
		12/21/2016	Yes	
		83094	McGowan Working Partners, Inc.	10/26/2007
10/13/2015	No			No well ID sign
3/22/2016	Yes			
2/6/2019	Yes			
149727	Inactive	5/18/2001	No	No well sign, vegetation has overtaken lease, This is an abandoned lease
	Birthright Oil & Gas Co.	7/26/2001	No	No well sign, vegetation has overtaken lease, This is an abandoned lease
160111	Energy Corp of America Inc	10/28/1987	Yes	
		7/5/1988	Yes	
		3/28/1989	Yes	
	McGowan Working Partners, Inc.	12/12/1997	No	Oil in well cellar, excessive grass growth around tank battery, Well ID signs missing
		3/19/1998	No	Oil still in the cellar
		8/19/1998	Yes	
		3/10/1999	No	Dirty, high grass, wall broken down, oily water inside, stairs slick, tank rusty.
		5/19/1999	Yes	
		4/28/2000	Yes	
		10/30/2000	Yes	
		1/4/2001	Yes	
		10/28/2005	Yes	
		5/9/2006	Yes	
		6/14/2007	Yes	
		8/14/2007	Yes	
		11/6/2008	Yes	
4/1/2011	Yes			
4/21/2015	Yes			
5/23/2017	Yes			

Table 3
LDNR Lease Facility Inspection Reports Summary
HeroLands, L.L.C. vs. Chevron U.S.A. Inc., et al
Stella Oil and Gas Field
Plaquemines Parish, Louisiana

Well SN	Operator	Inspection Date	In Compliance?	Remarks
167886	McGowan Working Partners, Inc.	6/14/2007	Yes	
		8/14/2007	Yes	
		1/20/2009	Yes	
		2/28/2012	Yes	
		12/26/2013	Yes	
		4/18/2016	Yes	
		1/29/2019	Yes	
169605	V. Monta Currie, Jr.	4/16/1986	No	Well #1 has down hole unidraulic unit. Pit 30'x30'x2' surrounded by fence, remove oil from pit, remove or plug lines to ditch, extend vent lines beyond firewall. Needs ID sign
		6/17/1986	Yes	
		10/29/1987	Yes	
		7/11/1988	Yes	
		9/8/1989	Yes	
175613	Graham Exploration	10/28/1987	Yes	
		8/5/1988	Yes	
		8/17/1989	Yes	
		6/3/1991	Yes	Well Location Good
		2/8/1993	Yes	
		10/11/1993	Yes	Well Location Good
		2/9/1994	Yes	
	P & P. Producing Inc.	10/6/1995	Yes	
		7/12/1999	Yes	
	Key Operating Company	2/4/2000	Yes	
		4/28/2000	Yes	
		8/14/2000	Yes	Tank battery labeled 'out of service'
		2/22/2001	Yes	
		8/9/2001	Yes	
		5/4/2006	Yes	
		2/1/2007	Yes	The well has been worked over and a new tree and pipework installed. Site ok at time of inspection
		7/24/2007	No	Discharge of E&P Deficiency
		9/18/2007	Yes	
		11/6/2008	Yes	
		1/20/2009	Yes	
5/4/2011		Yes		
3/6/2012		Yes		
3/13/2013	No	Leaking Production Vessel		
5/22/2013	Yes			
2/3/2016	Yes			
5/3/2018	Yes			
177783	V. Monta Currie, Jr.	4/27/1990	Yes	
		3/3/1993	Yes	Well location good
		7/26/1993	Yes	
		6/9/1995	Yes	Well location good
		10/27/1995	Yes	Well location good
		3/5/1998	No	No ID Sign, needs sealing devices
		5/19/1998	Yes	
		3/18/1999	Yes	
		5/8/2000	Yes	
		4/12/2001	Yes	
		10/11/2001	Yes	
		1/10/2002	Yes	
		4/11/2006	No	Vegetation overtaking lease
		6/28/2006	No	Vegetation NOT cut back
		8/18/2006	Yes	
		10/19/2006	Yes	
	1/24/2007	Yes	Lease in good order	
	8/14/2007	Yes	Lease in good order	
	McGowan Working Partners, Inc.	6/5/2008	Yes	
		1/7/2009	Yes	
		11/27/2012	Yes	
		2/11/2014	Yes	
		2/25/2016	Yes	
3/21/2018		Yes		

Table 3
LDNR Lease Facility Inspection Reports Summary
HeroLands, L.L.C. vs. Chevron U.S.A. Inc., et al
Stella Oil and Gas Field
Plaquemines Parish, Louisiana

Well SN	Operator	Inspection Date	In Compliance?	Remarks
184866	Graham Exploration	4/16/1986	Yes	
		5/19/1986	Yes	
		10/28/1987	Yes	
		8/9/1988	Yes	
		8/17/1989	Yes	
	Energy Self-Service Oils Inc	7/28/1992	Yes	
		5/26/1995	No	Pressure build up - Dangerous Conditions
	SMC Oil & Gas Inc.	9/19/1995	No	Pressure build up - Dangerous Conditions
		1/10/1997	No	Pressure build up - Dangerous Conditions
		3/16/1998	No	Pressure build up - Dangerous Conditions
		11/25/1998	No	Pressure build up - Dangerous Conditions
		4/9/1999	No	High grass, oil inside retaining levee, disposition of N.O.W.
		6/11/1999	No	Grass has been cut, the area within the retaining wall has not been cleaned up
11/3/2000		No	Gas leak, gauge reads 3500#, no ID on drums, no signs of activity, vegetation is high	
206750	Kele Exploration, Inc.	8/18/1988	Yes	
		5/18/1989	Yes	
		11/20/1989	Yes	
		5/23/1990	Yes	
		7/10/1992	Yes	
	Energy Self-Service Oils Inc	12/30/1992	No	Well signage missing, oil on ground. Well site, Fire hazard, and discharge of N.O.W deficiencies. Part of Compliance Notice #0004 (93/ENG-I&E)
		Magnum Minerals Inc.	4/6/1993	Yes
3/16/1998	No		No ID signs, vegetation needs to be removed. Valves removed and leaking gas, need sealing devices	
207392	Kele Exploration, Inc.	12/10/1989	Yes	
	Magnum Minerals Inc.	3/16/1998	No	Well Site ID/Condition and Fire Hazard Deficiency
214584	McGowan Working Partners, Inc.	12/7/1992	Yes	
		7/2/1993	Yes	
		1/3/1994	Yes	
		5/26/1995	Yes	
		8/19/1998	Yes	
		5/11/1999	Yes	
		4/17/2001	No	Well Site Condition deficiency. Needs to be worked over or P&A'd
		6/27/2001	No	Pumping unit is gone from well
		11/12/2002	No	Wellsite still not active nor P&A'd
		2/17/2003	No	No hook up to production facility
		6/14/2007	Yes	
		8/14/2007	Yes	
		11/6/2008	Yes	
		11/1/2011	Yes	
		1/2/2014	Yes	
2/25/2016	Yes			
7/18/2017	Yes			
12/21/2018	Yes			
226851	Paxton Oil Co.	10/19/2005	Yes	No damage from Katrina
		5/15/2006	Yes	
		9/29/2006	Yes	
		3/2/2007	Yes	
		8/23/2007	No	Tanks lack structural integrity - E&P discharge, Oil in cellar
		10/26/2007	Yes	
		3/28/2012	Yes	
		3/4/2015	Yes	
		3/22/2017	No	No Well Site ID
3/22/2017	No	No wellsite ID		

Table 3
LDNR Lease Facility Inspection Reports Summary
HeroLands, L.L.C. vs. Chevron U.S.A. Inc., et al
Stella Oil and Gas Field
Plaquemines Parish, Louisiana

Well SN	Operator	Inspection Date	In Compliance?	Remarks
228392	Wagner Oil Co.	10/19/2005	Yes	
		8/25/2006	Yes	
		10/25/2006	Yes	
		1/24/2007	Yes	
		6/26/2007	Yes	
		8/23/2007	Yes	
		10/9/2007	Yes	
		1/8/2009	Yes	
		10/18/2011	Yes	
		9/24/2013	Yes	
	7/15/2014	No	Open bleeder in Containment, E&P Waste Discharge from Faulty Bleeder (LSP HazMat incident # 14-03074)	
10/8/2014	Yes	Spill cleanup and site restoration is complete		
234213	Wagner Oil Co.	9/8/2015	Yes	
		6/21/2017	Yes	
McGowan Working Partners, Inc.		6/26/2007	Yes	
		8/23/2007	Yes	
3/7/2012		Yes		
2/4/2014	Yes			
971162	McGowan Working Partners, Inc.	6/2/2016	Yes	
		3/7/2019	Yes	
		8/23/2007	Yes	
		6/5/2008	Yes	
		1/7/2009	Yes	
		4/11/2013	Yes	
		4/21/2015	Yes	
		5/23/2017	Yes	
Notes:				
Information from LDNR Files.				

Table 4
LDNR Compliance Orders Summary
HeroLands, L.L.C. vs. Chevron U.S.A., Inc., et al
Stella Oil and Gas Field
Plaquemines Parish, Louisiana

Compliance Order No.	Date	Well SN	Recipient	Action Description	Violations	Compliance Date	Remarks
E-I&E 0004-93	1/11/1993	206750	Magnum Minerals, Inc.	Request Closure Data		NA	
E-I&E 94-0204	10/26/1994	184866	SMC Oil & Gas, Inc.	29B Violations	Submit written explanation of the circumstances leading to the excessive surface casing pressure and take necessary steps to correct the situation	8/17/1998	Extensions until 5-26-1995, then 1-15-1996, then 5-15-1996, then 9-1-1997, then 9-1-1997, then 8-17-1998. 5-26-1995 Lease Facility Inspection Report - Pressure on casing built up to 2200, dangerous condition, change of operator to SMC Oil & Gas. 9-19-1995 Lease Facility Inspection Report - Still not in compliance 10-5-1995 letter to SMC Oil & Gas, Inc. from LDNR - \$1000 Civil Penalty. 1-10-1997 Lease Facility Inspection Report - Still not in compliance 3-16-1998 Lease Facility Inspection Report - Not in compliance. 11-25-1998 Lease Facility Inspection Report - Still not in compliance due to high PSI
E-I&E 98-0025	1/8/1998	160111	McGowan Working Partners, Inc.	29B Violations	Well sites need ID signs, live oil accumulated in the wellhead vicinity, excessive combustible vegetation around the facility	2/9/1998	12-12-1997 Lease Facility Inspection Report - Oil in well cellar, excessive grass growth, well ID signs missing. 3-19-1998 Lease Facility Inspection Report - Oil still in cellar. 8-19-1998 Lease Facility Inspection Report - In Compliance
E-I&E 98-0163	3/5/1998	206750	Magnum Minerals, Inc.	Plug and Abandon	Well(s) need(s) to be P&A'd, equipment and structures need to be removed, site needs to be restored, and pit needs to be permanently closed	4/3/1998	3-16-1998 Lease Facility Inspection Report - No ID Signs, vegetation needs to be removed, valves removed and leaking gas, need sealing devices
E-I&E 98-0306	4/21/1998	177783	McGowan Working Partners, Inc.	29B Violations	Need ID signs, pipeline connections need to be equipped with the necessary seals	5/22/1998	3-5-1998 Lease Facility Inspection Report - No ID sign, needs sealing devices. 5-19-1998 Lease Facility Inspection Report - In Compliance
E-I&E 99-0239	4/14/1999	160111	McGowan Working Partners, Inc.	29B Violations	Breach exists in the containment structure for oil storage tankage. The containment around the tankage contains discharges of live oil. There is an unacceptable degree of combustible vegetation in and around the production facility. The tankage lacks structural integrity. The stairs within the tank battery are not maintained in working order.	5/17/1999	3-10-1999 Lease Facility Inspection Report - Dirty, high grass, wall broken down, oily water inside, stairs slick, tank rusty. 5-19-1999 Lease Facility Inspection Report - In Compliance
E-I&E 99-0263	4/27/1999	184866	SMC Oil & Gas, Inc.	29B Violations	Containment around the tankage contains discharges of live oil, unacceptable amount of combustible vegetation	5/28/1999	4-9-1999 Lease Facility Inspection Report - High grass, oil inside retaining levee, disposition of N.O.W. 6-11-1999 Lease Facility Inspection Report - Grass has been cut, the area within the retaining wall has not been cleaned up
E-I&E 01-0349	6/13/2001	149727	Birtright Oil & Gas Company	Plug and Abandon	Well needs to be P&A'd, equipment and structures need to be removed, site needs to be restored.	7/13/2001	7-5-2001 Birtright letter to LDNR - Birtright Oil & Gas Co. formally dissolved on December 20, 1985. 7-16-2001 Letter to Birtright - The site shall be declared orphaned. 7-26-2001 - Lease Facility Inspection Report - Still not in compliance
E-I&E 02-0186	4/4/2002	61430	Paxton Oil Company	Plug and Abandon	Well needs to be P&A'd, equipment and structures need to be removed, site needs to be restored.	6/15/2005	3-25-2002 Lease Facility Inspection Report - No Well ID Sign, overgrown vegetation, no tank battery or production hook up of any kind. 7-15-2002 letter to LDNR from McGowan - well sold to Paxton July 15, 2002. 7-16-2002 Lease Facility Inspection Report - Still not in compliance. 10-17-2002 letter to LDNR from Paxton - Please remove compliance order, the plan is to recomplate the well and use it for SWD. 10-30-2002 Lease Facility Inspection Report - In compliance, will still be converted to SWD later.

Table 4
LDNR Compliance Orders Summary
HeroLands, L.L.C. vs. Chevron U.S.A., Inc., et al
Stella Oil and Gas Field
Plaquemines Parish, Louisiana

Compliance Order No.	Date	Well SN	Recipient	Action Description	Violations	Compliance Date	Remarks
E-I&E 02-0186	4/4/2002	61430	Paxton Oil Company	Plug and Abandon	Well needs to be P&A'd, equipment and structures need to be removed, site needs to be restored.	6/15/2005	3-25-2002 Lease Facility Inspection Report - No ID sign, overgrown vegetation, no tank battery. 7-16-2002 Lease Facility Inspection Report - same as above, appears to be abandoned. 10-30-2002 Lease Facility Inspection Report - In Compliance - This well will be converted into a SWD. This well was sold to Paxton from McGowan in 2002
E-I&E 06-0109	5/8/2006	177783	McGowan Working Partners, Inc. / V. Monta Currie Jr.	29B Violations	There is an unacceptable degree of combustible vegetation in and around the production facility which presents a fire hazard	11/19/2006	4-11-2006 Lease Facility Inspection Report - Vegetation overtaking lease. 6-28-2006 Lease Facility Inspection Report - Vegetation not cut back. 8-18-2006 Lease Facility Inspection Report - In Compliance
E-I&E07-0237	6/27/2007	26120	McGowan Working Partners, Inc.	29B Violations	E&P Waste has been discharged in the vicinity of the wellhead and allowed to migrate to natural drainage	7/27/2007	6-14-2007 Lease Facility Inspection Report - Fire hazard and discharge of E&P Deficiency. 8-9-2007 Lease Facility Inspection Report - In Compliance
E-I&E 07-0238	6/27/2007	27622	McGowan Working Partners, Inc.	29B Violations	Stuffing box is leaking, resulting in discharge of E&P to natural drainage. Tank battery ID sign is incomplete. There is an unacceptable degree of combustible vegetation in and around the tank battery which presents a fire hazard	7/27/2007	6-14-2007 Lease Facility Inspection Report - Well Site, Tank Battery, Fire Hazard, and Discharge of E&P Deficiency. 8/9/2007 Lease Facility Inspection Report - In Compliance
E-I&E 07-0500	11/15/2007	58821	Crescent Energy Services, LLC	Plug and Abandon	Cement plugs were set and are currently in place, posing a safety and environmental hazard. Well needs to be P&A'd and equipment and structures removed	12/17/2007	10-26-2007 Lease Facility Inspection Report - No well site ID. Well P&A'd prior to 1986 rule change. 12-10-2007 LDNR Letter to Natural Feazel - Well will be declared orphaned by Act 404
E-I&E 14-0645	8/25/2014	228392	McGowan Working Partners, Inc.	28B Violations	Properly dispose of all E&P waste from the spill	6/6/2015	7-15-2014 Lease Facility Inspection Report - Open bleeder, E&P waste discharge from faulty bleeder, hazmat incident 14-03074. Site investigation and remediation includes soil data from ELEMENT. 10-8-2014 Lease Facility Inspection Report - Spill cleanup and site restoration is complete.
E-I&E 2015-003	1/26/2015	228392	McGowan Working Partners, Inc.	29B Violations	McGowan had been disposing salt water from one of Wagners wells.	NA	As a result of an informal conference, the civil penalty was reduced from \$2,000 to \$1,000. Wagner paid the \$1,000 fine
E-I&E 2015-002	1/27/2015	971162	McGowan Working Partners, Inc.	29B Violations	McGowan had been disposing salt water from one of Wagners wells. McGowan must pay a \$2,000 fine and write down why this happened	2/26/2015	McGowan paid the fine and came in compliance
E-I&E 14-0645	8/25/2015	228392	McGowan Working Partners, Inc.	29B Violations	Retrieve for proper disposition all E&P Waste which resulted from the spill	6/6/2015	7-15-2014 Lease Facility Inspection Report - Open Bleeder in Containment, E&P Waste discharge from faulty bleeder. 10-8-2014 Lease Facility Inspection Report - In Compliance
E-I&E15-2259	11/17/2015	83094	McGowan Working Partners, Inc.	28B Violations (No Inspection)	Accurate wellsite ID's needed	1/17/2016	10-13-2015 Lease Facility Inspection Report - No well ID Sign
E-I&E 17-0277	4/18/2017	226851, 61430	Paxton Oil Company	28B Violations (No Inspection)	Accurate wellsite ID's needed	6/18/2017	3-22-2017 Lease Facility Inspection Report - no wellsite ID
E-I&E 19-0443	4/9/2019	61430	Paxton Oil Company	28B Violations (No Inspection)	Accurate wellsite ID's needed	6/9/2019	4/2/2019 Lease Facility Inspection Report - no wellsite ID

Notes:
Information from LDNR files.
NA - Not available

Table 5
Louisiana Stream Control Commission Documents
Hero Lands Company, L.L.C. vs. Chevron U.S.A. Inc. et al
Stella Oil Gas Field
Plaquemines Parish, Louisiana

Date	Document	Relevant Information
12/5/1967	Proceedings of Meeting of Louisiana Stream Control Commission (Pages 14-24)	<p>"The next proposal involves a matter of the actions or practices of Chevron Oil Company, subsidiary of the California Company in the Stella Field in Plaquemines Parish in which there is and has been for quite some time a discharge of some six thousand barrels of brine through a system of ditches. This brine flows through these ditches and finally is pumped to the Intracoastal Canal."</p> <p>"Now, the elder Mr. Hero, years ago, told me that he was glad to have that in there because it kept the weeds from growing in the ditches and he didn't have to have them cleaned out."</p> <p>"So when this was dug, of course, they leveled it off, and Mr. Hero, of course, dug this canal and leveled this off so that, of course, the blue is all the area where it has to be pumped out."</p> <p>"No sir, the flow is pretty good through there and it's pumped out pretty good. You see, this has been going on for twenty some odd years and all this before this airfield was built, all of this belongs to the Hero interests."</p> <p>"The motion is made and seconded that we approve the application." "Motion carried."</p>
1/5/1968	Louisiana Stream Control Commission letter to Chevron Oil Company - Application for disposal of salt water produced at Stella Field in Plaquemines Parish	"This will officially confirm approval by the Louisiana Stream Control Commission at its meeting December 5, 1967, of your above reference proposal."
1971	Public Notice	"Notice is hereby given that Chevron Oil Company, The California Company Division, New Orleans, Louisiana: Stella Field, Stella Field Combined Facilities have received waste disposal permits from the Louisiana Stream Control Commission and is now applying to the Commission for Certification as provided in Revised Statutes 56:1439(5) that there is reasonable assurance that the waste discharges from these installations will be conducted in a manner which will not violate applicable water quality standards."
5/17/1971	Chevron letter to Louisiana Stream Control Commission	"As a prerequisite to securing a U.S. Corps of Engineers discharge permit, we are herewith applying for State Certification of the discharge of approximately 9,090 barrels per day of oil field brine into Louisiana coastal waters from our Stella Field. This discharge flows through primary and secondary retention pits into privately dug drainage ditches and then into a larger drainage ditches and then into a larger drainage ditch which is pumped into the Intracoastal Canal in Plaquemines Parish."
6/15/1971	Louisiana Stream Control Commission letter to Chevron Oil Company	"Reference is made to your letters dated May 14 and May 17, 1971, requesting State Certification from this agency for the above subject operations. Under the Provisions of: Order issued by the Louisiana Stream Control Commission July 1968, Amendment to Statewide Order No. 29-B, Louisiana Department of Conservation dated October 19, 1967 and, Regulation promulgated by the Louisiana Stream Control Commission January 1953, it is the opinion of the Stream Control Commission that these discharges will be conducted without violating water quality standards of the State of Louisiana, provided the chemical characteristics of the discharges are as described in your letters of application."

Note:
Information from LDNR.

Table 6
Plaintiff's Soil Analytical Results Summary
Hero Lands Company, L.L.C. v Chevron U.S.A., Inc., et al.
Stella Field, Plaquemines Parish, Louisiana

Tract ID					SW						NW						NW											
Sample ID					SB-15						BC-1						BC-2											
Sample Date					6/24/2019						8/13/2018						8/13/2018											
Sample Interval					0-2'		2-4'		4-6'		2-4'		4-6'		8-10'		2-4'		4-8'		10-12'		16-18'		58-60'		74-76'	
Sampler					MP&A	ICON	MP&A	ICON	MP&A	ICON	ICON	MP&A	ICON	MP&A	ICON	MP&A	ICON	MP&A	ICON	MP&A	ICON	MP&A	ICON	MP&A	ICON	MP&A	ICON	
Parameters	Units	29-B Limit ^a	29-B Limit ^b	RECAP LSS ^c																								
Salts																												
% Moisture	%	NS	NS	NS	28.8	30.0	35.8	34.4	45.6	43.9	21.5	23.2	24.1	25.8	24.2	28.3	28.5	25	23.9	NA	21.7	27.3	24.1	32.3	32.3	33.5	32.5	
% Saturation	%	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Soluble Chloride	mg/Kg-dry	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Cation Exchange Capacity (CEC)	meq/100g	NS	NS	NS	46.9	51.30	57.8	63.8	62.8	75.3	24.0	15.8	18.6	14.5	11.1	53.7	52.1	29.4	25.8	NA	11.4	13.3	11.6	NA	NA	NA	NA	
Electrical Conductivity	mmhos/cm	4	8	NS	0.76	1.41	2.02	2.23	1.91	4.2	1.37	1.42	1.70	4.35	4.78	10.1	12.7	30.9	33	NA	136	163	154	6.08	5.22	7.53	7.2	
pH	S.U.	6 - 9	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Exchangeable Sodium Percentage	%	15	25	NS	17.3	17.60	30	26.4	25.3	21.0	10.4	11.7	10.5	37.5	40.1	100	56.7	58.3	48.4	NA	100	162	100	NA	NA	NA	NA	
Sodium Adsorption Ratio	Calc	12	14	NS	10.2	14.3	23.2	24.5	17.7	32.1	11.2	10.9	12.8	32.7	33.3	89.5	112	136	141	NA	157	112	140	NA	NA	NA	NA	
Soluble Calcium	meq/L	NS	NS	NS	0.39	0.87	0.69	0.7	1.07	1.8	0.920	0.97	1.10	1.15	1.37	2.22	1.93	12.2	14.8	NA	57.9	130	77.7	NA	NA	NA	NA	
Soluble Magnesium	meq/L	NS	NS	NS	0.32	0.53	0.35	0.47	0.52	0.8	0.570	0.54	0.730	0.97	1.13	0.95	0.830	5.92	7.21	NA	32.7	81.6	55.1	NA	NA	NA	NA	
Soluble Sodium	meq/L	NS	NS	NS	6.06	11.9	16.7	19.1	15.7	36.8	9.67	9.47	12.2	33.6	37.2	113	132	409	467	NA	1060	1150	1140	NA	NA	NA	NA	
SPLP Chloride	mg/L	NS	NS	NS	6.67	NA	17.7	NA	16.2	NA	NA	NA	NA	NA	NA	NA	NA	417	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SPLP Sodium	mg/L	NS	NS	NS	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	NS	NS	NS	NA	76.2	NA	181	NA	406	40.2	NA	NA	NA	NA	NA	NA	2790	NA	5450	NA	NA	NA	860	NA	845	NA	
Metals																												
Arsenic	mg/Kg-wet	10	12	RECAP LSS ^c	4.95	5.36	2.82	3.95	4.47	3.73	5.69	22.9	14.8	1.5	2.03	3.13	9.2	3.97	3.39	NA	4.57	1.93	4.24	NA	NA	NA	NA	
Barium	mg/Kg-wet	NS	550	RECAP LSS ^c	1,130	882	193	302	124	213	201	198	159	84.1	94	125	139	94.5	101	NA	75.6	89	90	NA	NA	NA	NA	
True Total Barium	mg/Kg-dry	20000	NS	RECAP LSS ^c	2,200	1,680	684	949	849	592	265	202	237	133	126	222	207	142	160	NA	107	126	118	NA	NA	NA	NA	
Cadmium	mg/Kg-wet	10	3.9	RECAP LSS ^c	0.409	<0.341	0.369	<0.317	0.475	<0.27	<0.391	1.1	0.422	0.348	<0.378	0.495	<0.355	0.371	<0.378	NA	<0.388	0.382	<0.378	NA	NA	NA	NA	
Chromium ^d	mg/Kg-wet	500	100	RECAP LSS ^c	54.9	15.7	11.9	12.6	9.72	10.4	10.8	7.41	8.8	6.97	7.41	13.6	14.0	10.2	10.3	NA	6.9	6.86	7.01	NA	NA	NA	NA	
Lead	mg/Kg-wet	500	100	RECAP LSS ^c	25.4	76	10.6	10.8	8.99	10.2	6.79	5.8	5.78	4.15	3.74	9.92	10.9	7.45	8.1	NA	3.96	4.04	3.7	NA	NA	NA	NA	
Mercury	mg/Kg-wet	10	2.3	RECAP LSS ^c	<0.0984	<0.100	<0.100	<0.066	<0.0998	<0.053	<0.079	<0.0949	<0.0755	<0.101	<0.08	<0.107	<0.078	<0.101	<0.081	NA	<0.082	<0.0959	<0.1	NA	NA	NA	NA	
Iron	mg/Kg-wet	NS	NS	RECAP LSS ^c	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-wet	10	20	RECAP LSS ^c	<1.99	<2.7	<1.99	<2.53	<2.00	<2.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Silver	mg/Kg-wet	200	39	RECAP LSS ^c	<0.249	NA	<0.249	NA	<0.250	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Strontium	mg/Kg-wet	NS	NS	RECAP LSS ^c	NA	43.3	NA	37.8	NA	33.6	23.0	24	23.1	20.8	21.1	37	39.2	32.4	32.4	NA	31.4	36.8	34.6	NA	NA	NA	NA	
Zinc	mg/Kg-wet	500	2300	RECAP LSS ^c	42.2	54	50.6	52.1	43.8	43.5	38.9	37.3	33.5	29.4	28.0	53.8	57.5	43.9	41.9	NA	26.8	27.6	26.9	NA	NA	NA	NA	
Hydrocarbons																												
Oil & Grease	%	1	NS	RECAP LSS ^c	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	NS	65	RECAP LSS ^c	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	NS	180	RECAP LSS ^c	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	NS	1200	RECAP LSS ^c	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	NS	120	RECAP LSS ^c	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	NS	230	RECAP LSS ^c	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	NS	370	RECAP LSS ^c	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	NS	7100	RECAP LSS ^c	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	NS	65	RECAP LSS ^c	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	NS	120	RECAP LSS ^c	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	NS	180	RECAP LSS ^c	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	NS	150	RECAP LSS ^c	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	NS	180	RECAP LSS ^c	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Notes
(a) LDNR Statewide 29-B soil standards for uplands.
(b) LDNR Statewide 29-B soil standards for wetlands.
(c) LDEQ limiting screening RECAP standard for soil.
(d) GW_SS RECAP standard for Chromium (III).
NA = Not analyzed.
< = Not detected at or above the reporting limit shown.
Highlighted values exceed the matching standard.
29-B Salt Standards have only been applied to samples between 0-2 feet. Samples in the SW tract are compared to 29-B wetland salt standards, all other tracts are compared to 29-B upland salt standards.

Table 6
Plaintiff's Soil Analytical Results Summary
Hero Lands Company, L.L.C. v Chevron U.S.A., Inc., et al.
Stella Field, Plaquemines Parish, Louisiana

Parameters	Units	Tract ID				NW								Off Site								NE											
		Sample ID				BC-3								BC-4								BC-5											
		Sample Date				8/15/2018								8/16/2018								8/20/2018											
		Sample Interval				2-4'		6-8'		8-10'		16-18'		2-4'		6-8'		10-12'		26-28'		54-56'		74-76'		0-4'		4-8'		10-12'		18-20'	
Sampler				MP&A	ICON	MP&A	ICON	MP&A	ICON	MP&A	ICON	MP&A	ICON	MP&A	ICON	MP&A	ICON	MP&A	ICON	MP&A	ICON	MP&A	ICON	MP&A	ICON	MP&A	ICON	MP&A	ICON	MP&A	ICON		
		29-B Limit ^a	29-B Limit ^b	RECAP LSS ^c																													
Salts																																	
% Moisture	%	NS	NS	NS	25.7	27.3	45.6	35.9	53	47.1	36	30.4	27.9	28.8	24.6	23.0	26.6	28.3	34	33.2	33.9	33.3	29.3	30.6	16.4	16.9	27.3	28.1	54.1	54.2	36.5	36.7	
% Saturation	%	NS	NS	NS	NA	NA	NA	NA	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 Chloride	mg/Kg-dry	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Cation Exchange Capacity (CEC)	meq/100g	NS	NS	NS	47.3	46.2	79.6	56.2	NA	59.9	NA	NA	59.6	62.2	32.9	23.1	NA	23.1	NA	NA	NA	NA	NA	NA	19.4	17.3	35.1	39.9	70.1	74.7	NA	NA	
Electrical Conductivity	mmhos/cm	4	8	NS	1.27	1.11	2.59	2.08	6.65	6.18	31.2	28	0.72	0.380	0.74	0.390	0.6	0.640	7.87	8.21	10.2	8.78	11.7	13.1	4.98	5.3	4.54	4.78	15.6	16	11.6	11.1	
pH	S.U.	6 - 9	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Exchangeable Sodium Percentage	%	15	25	NS	18.7	20.2	14.2	20.1	NA	14.4	NA	NA	1.79	1.19	1.69	2.45	NA	2.99	NA	NA	NA	NA	NA	NA	20.3	22.2	27	22.9	17.9	21.2	NA	NA	
Sodium Adsorption Ratio	Calc	12	14	NS	15.6	14.9	15.5	18.7	18.5	19.4	NA	NA	2.61	1.76	4.6	2.09	2.78	2.85	NA	NA	NA	NA	NA	NA	20.8	23	27.8	31.3	36.6	34.6	NA	NA	
Soluble Calcium	meq/L	NS	NS	NS	0.55	0.420	1.77	0.920	7.59	6.36	NA	NA	2.04	1.18	1.18	1.11	1.3	1.53	NA	NA	NA	NA	NA	NA	4.33	5.76	2.15	2.43	22.5	17.3	NA	NA	
Soluble Magnesium	meq/L	NS	NS	NS	0.33	0.310	0.92	0.480	3.82	3.11	NA	NA	1.04	0.650	0.67	0.640	0.97	0.980	NA	NA	NA	NA	NA	NA	1.58	1.86	0.94	1.14	11.6	9.26	NA	NA	
Soluble Sodium	meq/L	NS	NS	NS	10.3	8.94	18	15.6	44.2	42.2	NA	NA	3.24	1.68	4.43	1.95	2.96	3.19	NA	NA	NA	NA	NA	NA	35.7	44.9	34.6	41.8	151	126	NA	NA	
SPLP Chloride	mg/L	NS	NS	NS	NA	NA	11.7	NA	66	NA	246	NA	NA	NA	NA	2.2	NA	88.1	NA	187	NA	192	NA	NA	NA	52.7	NA	161	NA	NA	NA		
SPLP Sodium	mg/L	NS	NS	NS	NA	NA	NA	NA	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	NS	NS	NS	NA	NA	NA	114	NA	606	NA	2030	NA	NA	NA	NA	NA	NA	NA	629	NA	1250	NA	1280	NA	NA	NA	329	NA	1610	NA	NA	
Metals																																	
		29-B Limit ^a	RECAP LSS ^c																														
Arsenic	mg/Kg-wet	10	12	7.83	5.14	6.18	8.5	5.42	5.19	NA	NA	6.35	4.74	4.93	5.00	3.09	4.54	NA	NA	NA	NA	NA	NA	2.92	5.26	2.85	5.7	4.43	3.9	NA	NA		
Barium	mg/Kg-wet	NS	550	155	198	128	151	102	122	NA	NA	608	252	133	152	131	125	NA	NA	NA	NA	NA	NA	234	410	145	181	105	111	NA	NA		
True Total Barium	mg/Kg-dry	20000	NS	296	343	347	296	315	289	NA	NA	302	421	248	198	216	209	NA	NA	NA	NA	NA	NA	827	626	273	285	429	330	NA	NA		
Cadmium	mg/Kg-wet	10	3.9	0.536	<0.363	0.678	<0.318	0.624	<0.263	NA	NA	0.403	<0.355	0.608	<0.384	0.438	<0.358	NA	NA	NA	NA	NA	NA	<0.263	<0.415	<0.252	<0.4	<0.274	0.305	NA	NA		
Chromium ^d	mg/Kg-wet	500	100	14.2	15.4	9.36	13.1	8.93	10.4	NA	NA	12.9	14.9	12.3	10.9	9.88	9.5	NA	NA	NA	NA	NA	NA	10.4	10.3	10.1	14	7.66	7.6	NA	NA		
Lead	mg/Kg-wet	500	100	12.2	11.8	11.6	10.4	7.67	8	NA	NA	12.5	11.1	8.87	7.58	6.81	6.40	NA	NA	NA	NA	NA	NA	13.5	24.7	7.57	10.4	6.87	7	NA	NA		
Mercury	mg/Kg-wet	10	2.3	<0.105	<0.0708	<0.0973	<0.0624	<0.1	<0.0514	NA	NA	<0.101	<0.075	<0.0995	<0.078	<0.105	<0.075	NA	NA	NA	NA	NA	NA	<0.0933	<0.08	<0.108	<0.0688	<0.0956	<0.045	NA	NA		
Iron	mg/Kg-wet	NS	NS	NA	NA	NA	NA	NA	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-wet	10	20	NA	NA	NA	NA	NA	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-wet	200	39	NA	NA	NA	NA	NA	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-wet	NS	NS	33.6	34.8	36.5	33.1	24.8	25.5	NA	NA	43.8	36.7	30.2	26.0	29.7	26.1	NA	NA	NA	NA	NA	NA	65.2	260	26.3	39.7	27.5	27.9	NA	NA		
Zinc	mg/Kg-wet	500	2300	63.1	61.4	51.1	54.7	49.6	44.2	NA	NA	60.1	56.7	50.8	42.4	41.6	38.5	NA	NA	NA	NA	NA	NA	44.8	43.1	42.1	55.7	33.8	32.8	NA	NA		
Hydrocarbons																																	
Oil & Grease	%	1	NS	NA	NA	NA	NA	NA	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	NS	65	NA	NA	NA	NA	NA	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	NS	180	NA	NA	NA	NA	NA	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	NS	1200	NA	NA	NA	NA	NA	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	NS	120	NA	NA	NA	NA	NA	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	NS	230	NA	NA	NA	NA	NA	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	NS	370	NA	NA	NA	NA	NA	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	NS	7100	NA	NA	NA	NA	NA	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	NS	65	NA	NA	NA	NA	NA	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	NS	120	NA	NA	NA	NA	NA	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	NS	180	NA	NA	NA	NA	NA	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	NS	150	NA	NA	NA	NA	NA	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	NS	180	NA	NA	NA	NA	NA	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
(a) LDNR Statewide 29-B soil standards for uplands.
(b) LDNR Statewide 29-B soil standards for wetlands.
(c) LDEQ limiting screening RECAP standard for soil.
(d) GW_SS RECAP standard for Chromium (III).
NA = Not analyzed.
< = Not detected at or above the reporting limit shown.
Highlighted values exceed the matching standard.
29-B Salt Standards have only been applied to samples between 0-2 feet. Samples in the SW tract are compared to 29-B wetland salt standards, all other tracts are compared to 29-B upland salt standards.

Table 6
Plaintiff's Soil Analytical Results Summary
Hero Lands Company, L.L.C. v Chevron U.S.A., Inc., et al.
Stella Field, Plaquemines Parish, Louisiana

Parameters	Units	Tract ID	NE								Off Site								Off Site											
			BC-6								BC-7								BC-8											
			8/21/2018								8/21/2018								8/22/2018											
			Sample Interval		0-4'		4-6'		18-20'		0-4'		6-8'		10-12'		18-20'		22-24'		2-4'		4-6'		6-8'		10-12'		20-22'	
Sampler	MP&A	ICON	MP&A	ICON	MP&A	ICON	MP&A	ICON	MP&A	ICON	MP&A	ICON	MP&A	ICON	MP&A	ICON	MP&A	ICON	MP&A	ICON	MP&A	ICON	MP&A	ICON	MP&A	ICON				
29-B Limit ^a	29-B Limit ^b	RECAP LSS ^c																												
Salts																														
% Moisture	%	NS	NS	NS	20.6	23.6	31	31.7	36.9	40.3	24.1	35.4	35.2	51.2	51.8	34.8	34	30.3	33.2	NA	13.1	NA	19.8	NA	32.4	39.3	41.5	33.5	35.7	
% Saturation	%	NS	NS	NS	NA	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 Chloride	mg/Kg-dry	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Cation Exchange Capacity (CEC)	meq/100g	NS	NS	NS	20.1	24.9	55.4	51.6	NA	NA	25.1	59.6	57.2	62	61.3	NA	NA	NA	NA	NA	NA	12.0	NA	15.2	NA	58.4	33.5	38.2	NA	NA
Electrical Conductivity	mmhos/cm	4	8	NS	2.05	1.44	1.55	1.44	5.11	4.87	4.27	4.11	2.63	77.7	128	53.3	54.3	14.8	16.4	NA	7.31	NA	16.3	NA	13.0	123	93.4	59	51.3	
pH	S.U.	6 - 9	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Exchangeable Sodium Percentage	%	15	25	NS	15.4	15.3	13.2	15.4	NA	NA	26.3	51.1	61.8	19.7	70.9	NA	NA	NA	NA	NA	7.78	NA	32.2	NA	67.4	100	85	NA	NA	
Sodium Adsorption Ratio	Calc	12	14	NS	15	13.3	16.8	12.3	NA	NA	40.8	40.3	28.8	111	106	NA	NA	NA	NA	NA	17.8	NA	37.4	NA	108	63.3	132	NA	NA	
Soluble Calcium	meq/L	NS	NS	NS	1.36	1.23	0.66	1.49	NA	NA	1.66	0.8	0.680	87.8	78	NA	NA	NA	NA	NA	21.9	NA	23.9	NA	1.63	116	55.9	NA	NA	
Soluble Magnesium	meq/L	NS	NS	NS	0.7	0.5	0.35	0.41	NA	NA	0.770	0.44	0.540	63	64.2	NA	NA	NA	NA	NA	4.35	NA	5.39	NA	0.810	73.7	38.8	NA	NA	
Soluble Sodium	meq/L	NS	NS	NS	15.2	12.3	11.9	12	NA	NA	45.0	31.8	22.5	964	894	NA	NA	NA	NA	NA	64.6	NA	143	NA	119	617	908	NA	NA	
SPLP Chloride	mg/L	NS	NS	NS	NA	NA	13.8	NA	NA	NA	NA	NA	1040	NA	605	NA	115	NA	NA	NA	NA	NA	NA	NA	NA	911	NA	521	NA	
SPLP Sodium	mg/L	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	639	NA	352	NA	117	NA	NA	NA	NA	NA	NA	NA	NA	563	NA	317	NA	
29-B Leachate Chloride	mg/L	NS	NS	NS	NA	NA	NA	86.1	NA	NA	NA	NA	NA	7950	NA	5570	NA	682	NA	NA	NA	NA	NA	NA	NA	NA	7450	NA	4280	
Metals																														
		29-B Limit ^a	RECAP LSS ^c																											
Arsenic	mg/Kg-wet	10	12	3.52	4.4	7.66	6.15	NA	NA	5.13	9.18	4.95	5.29	5.6	NA	NA	NA	NA	NA	NA	6.77	NA	3.88	NA	4.16	4.2	4.86	NA	NA	
Barium	mg/Kg-wet	NS	550	928	1008	185	184	NA	NA	350	147	148	120	122	NA	NA	NA	NA	NA	NA	455	NA	4,042	NA	208	90.6	112	NA	NA	
True Total Barium	mg/Kg-dry	20000	NS	1260	2400	333	382	NA	NA	409	284	289	295	295	NA	NA	NA	NA	NA	NA	1,670	NA	3,880	NA	458	174	273	NA	NA	
Cadmium	mg/Kg-wet	10	3.9	<0.265	0.493	<0.258	0.387	NA	NA	0.695	<0.269	0.394	<0.256	0.4	NA	NA	NA	NA	NA	NA	0.448	NA	<0.4	NA	<0.337	<0.258	0.413	NA	NA	
Chromium ^d	mg/Kg-wet	500	100	8.1	9.5	12.2	12.5	NA	NA	11.0	13.4	13.7	7.89	7	NA	NA	NA	NA	NA	NA	22.8	NA	53.6	NA	13.7	8.22	7.7	NA	NA	
Lead	mg/Kg-wet	500	100	18	24.2	10.8	11.2	NA	NA	17.2	11.4	11.9	7.69	7.3	NA	NA	NA	NA	NA	NA	60.7	NA	100	NA	12.5	6.03	6.8	NA	NA	
Mercury	mg/Kg-wet	10	2.3	<0.0989	<0.077	<0.102	<0.069	NA	NA	0.123	<0.0955	<0.0642	<0.102	<0.051	NA	NA	NA	NA	NA	NA	<0.091	NA	<0.078	NA	<0.072	<0.1	<0.059	NA	NA	
Iron	mg/Kg-wet	NS	NS	NA	NA	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-wet	10	20	NA	NA	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-wet	200	39	NA	NA	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-wet	NS	NS	42.6	43	28.1	28.6	NA	NA	65.9	40.8	45.6	48.9	53	NA	NA	NA	NA	NA	NA	90	NA	164	NA	53.1	34.1	47.4	NA	NA	
Zinc	mg/Kg-wet	500	2300	36.8	44.6	53.7	53.4	NA	NA	68.0	53.5	57.2	52.3	36.6	NA	NA	NA	NA	NA	NA	125	NA	93	NA	55.0	33.8	35	NA	NA	
Hydrocarbons																														
Oil & Grease	%	1	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.5	NA	14.6	NA	0.710	NA	NA	NA	NA	
TPH-DRO (>C10-C28)	mg/Kg	NS	65	NA	NA	NA	NA	NA	NA	10.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5850	NA	13500	NA	1300	NA	NA	NA	NA	
TPH-ORO (>C28-C35)	mg/Kg	NS	180	NA	NA	NA	NA	NA	NA	5.14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	995	NA	1710	NA	204	NA	NA	NA	NA	
Aliphatic C6-C8	mg/Kg	NS	1200	NA	NA	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	NS	120	NA	NA	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	NS	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5940	NA	<6000	NA	<600	NA	NA	NA	NA	
Aliphatic >C12-C16	mg/Kg	NS	370	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5940	NA	7330	NA	889	NA	NA	NA	NA	
Aliphatic >C16-C35	mg/Kg	NS	7100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8380	NA	12400	NA	2320	NA	NA	NA	NA	
Aromatic >C8-C10	mg/Kg	NS	65	NA	NA	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	NS	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<594	NA	<600	NA	<60	NA	NA	NA	NA	
Aromatic >C12-C16	mg/Kg	NS	180	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1280	NA	1130	NA	91	NA	NA	NA	NA	
Aromatic >C16-C21	mg/Kg	NS	150	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1060	NA	955	NA	96	NA	NA	NA	NA	
Aromatic >C21-C35	mg/Kg	NS	180	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3750	NA	3980	NA	451	NA	NA	NA	NA	

Notes
(a) LDNR Statewide 29-B soil standards for uplands.
(b) LDNR Statewide 29-B soil standards for wetlands.
(c) LDEQ limiting screening RECAP standard for soil.
(d) GW_SS RECAP standard for Chromium (III).
NA = Not analyzed.
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29-B Salt Standards have only been applied to samples between 0-2 feet. Samples in the SW tract are compared to 29-B wetland salt standards, all other tracts are compared to 29-B upland salt standards.

Table 6
Plaintiff's Soil Analytical Results Summary
Hero Lands Company, L.L.C. v Chevron U.S.A., Inc., et al.
Stella Field, Plaquemines Parish, Louisiana

Tract ID					SW								SW									
Sample ID					BC-9								BC-10									
Sample Date					10/24/2018								10/24/2018									
Sample Interval					0-2'		4-6'		10-12'		18-20'		0-4'		4-6'		10-12'		14-16'		20-22'	
Sampler					MP&A	ICON	MP&A	ICON	MP&A	ICON	MP&A	ICON	MP&A	ICON	MP&A	ICON	MP&A	ICON	MP&A	ICON	MP&A	ICON
Parameters	Units	29-B Limit ^a	29-B Limit ^b	RECAP LSS ^c																		
Salts																						
% Moisture	%	NS	NS	NS	21.3	21.7	25.2	24.7	NA	20.2	20	20.4	26.9	22.7	NA	33.5	NA	30.5	20	21.0	26.4	20.9
% Saturation	%	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soluble Chloride	mg/Kg-dry	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cation Exchange Capacity (CEC)	meq/100g	NS	NS	NS	44.3	46.8	25.3	34.7	NA	9.40	NA	NA	40.3	50.9	NA	40.8	NA	22.3	NA	NA	NA	NA
Electrical Conductivity	mmhos/cm	4	8	NS	0.45	0.570	1.35	0.920	NA	4.32	37.6	39.5	2.2	1.9	NA	1.79	NA	6.27	27	25.0	47.4	36.2
pH	S.U.	6 - 9	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Exchangeable Sodium Percentage	%	15	25	NS	1.13	0.500	10.8	3.98	NA	29.0	NA	NA	13.2	10.4	NA	7.98	NA	24	NA	NA	NA	NA
Sodium Adsorption Ratio	Calc	12	14	NS	1.62	0.740	11.2	11.7	NA	33.2	NA	NA	13.6	14.9	NA	13.2	NA	35.3	NA	NA	NA	NA
Soluble Calcium	meq/L	NS	NS	NS	1.97	3.66	1.13	1.36	NA	2.09	NA	NA	1.96	1.34	NA	2.47	NA	4.33	NA	NA	NA	NA
Soluble Magnesium	meq/L	NS	NS	NS	0.57	1.00	0.46	0.410	NA	1.28	NA	NA	0.99	0.63	NA	0.99	NA	1.91	NA	NA	NA	NA
Soluble Sodium	meq/L	NS	NS	NS	1.82	1.12	10	11.0	NA	43.0	NA	NA	16.5	14.8	NA	17.3	NA	62.4	NA	NA	NA	NA
SPLP Chloride	mg/L	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Sodium	mg/L	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
29-B Leachate Chloride	mg/L	NS	NS	NS	NA	NA	NA	6.49	NA	NA	NA	NA	NA	NA	NA	NA	NA	316	NA	NA	NA	NA
Metals																						
		29-B Limit ^a	29-B Limit ^b	RECAP LSS ^c																		
Arsenic	mg/Kg-wet	10	12	14.6	9.0	4.29	3.55	NA	2.82	NA	NA	3.99	6.58	NA	5.22	NA	3.8	NA	NA	NA	NA	NA
Barium	mg/Kg-wet	NS	550	785	940	174	111	NA	68.5	NA	NA	301	318	NA	1935	NA	855	NA	NA	NA	NA	NA
True Total Barium	mg/Kg-dry	20000	NS	560	1,770	222	195	NA	89.9	NA	NA	375	540	NA	4600	NA	1200	NA	NA	NA	NA	NA
Cadmium	mg/Kg-wet	10	3.9	0.915	0.521	0.503	<0.375	NA	<0.397	NA	NA	0.739	<0.383	NA	0.543	NA	0.477	NA	NA	NA	NA	NA
Chromium ^d	mg/Kg-wet	500	100	12.8	10.8	8.57	8.2	NA	5.91	NA	NA	12.1	12	NA	11.5	NA	9.8	NA	NA	NA	NA	NA
Lead	mg/Kg-wet	500	100	23.5	11.0	8.83	7.8	NA	4.00	NA	NA	15.9	12.9	NA	13.8	NA	12.6	NA	NA	NA	NA	NA
Mercury	mg/Kg-wet	10	2.3	<0.0975	<0.0768	<0.0979	<0.072	NA	<0.076	NA	NA	<0.106	<0.0756	NA	<0.0615	NA	<0.07	NA	NA	NA	NA	NA
Iron	mg/Kg-wet	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/Kg-wet	10	20	<2.08	<3.11	<2.16	<3	NA	<3.18	NA	NA	<2.21	<3.07	NA	<2.65	NA	<2.76	NA	NA	NA	NA	NA
Silver	mg/Kg-wet	200	39	<0.26	NA	<0.271	NA	NA	NA	NA	NA	<0.276	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Strontium	mg/Kg-wet	NS	NS	NA	68.8	NA	38.6	NA	24.1	NA	NA	NA	44.4	NA	63.6	NA	70	NA	NA	NA	NA	NA
Zinc	mg/Kg-wet	500	2300	72.2	143	38.9	35.7	NA	22.0	NA	NA	183	104	NA	155	NA	227	NA	NA	NA	NA	NA
Hydrocarbons																						
Oil & Grease	%	1	NS	NA	NA	NA	NA	NA	NA	NA	NA	0.57	NA	NA	NA	NA	0.28	NA	NA	NA	NA	NA
TPH-DRO (>C10-C28)	mg/Kg	NS	65	NA	NA	NA	NA	NA	NA	NA	NA	NA	157	NA	2480	NA	1750	NA	NA	NA	NA	NA
TPH-ORO (>C28-C35)	mg/Kg	NS	180	NA	NA	NA	NA	NA	NA	NA	NA	NA	272	NA	1570	NA	1340	NA	NA	NA	NA	NA
Aliphatic C6-C8	mg/Kg	NS	1200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aliphatic >C8-C10	mg/Kg	NS	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aliphatic >C10-C12	mg/Kg	NS	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	<6	NA	NA	NA	<600	NA	NA	NA	NA	NA
Aliphatic >C12-C16	mg/Kg	NS	370	NA	NA	NA	NA	NA	NA	NA	NA	NA	<6	NA	NA	NA	800	NA	NA	NA	NA	NA
Aliphatic >C16-C35	mg/Kg	NS	7100	NA	NA	NA	NA	NA	NA	NA	NA	33.3	NA	NA	NA	NA	2040	NA	NA	NA	NA	NA
Aromatic >C8-C10	mg/Kg	NS	65	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aromatic >C10-C12	mg/Kg	NS	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	<6	NA	NA	NA	<60	NA	NA	NA	NA	NA
Aromatic >C12-C16	mg/Kg	NS	180	NA	NA	NA	NA	NA	NA	NA	NA	NA	<6	NA	NA	NA	94.6	NA	NA	NA	NA	NA
Aromatic >C16-C21	mg/Kg	NS	150	NA	NA	NA	NA	NA	NA	NA	NA	NA	<6	NA	NA	NA	<60	NA	NA	NA	NA	NA
Aromatic >C21-C35	mg/Kg	NS	180	NA	NA	NA	NA	NA	NA	NA	NA	9.96	NA	NA	NA	NA	253	NA	NA	NA	NA	NA

Notes
(a) LDNR Statewide 29-B soil standards for uplands.
(b) LDNR Statewide 29-B soil standards for wetlands.
(c) LDEQ limiting screening RECAP standard for soil.
(d) GW_SS RECAP standard for Chromium (III).
NA = Not analyzed.
< = Not detected at or above the reporting limit shown.
Highlighted values exceed the matching standard.
29-B Salt Standards have only been applied to samples between 0-2 feet. Samples in the SW tract are compared to 29-B wetland salt standards, all other tracts are compared to 29-B upland salt standards.

Table 6
Plaintiff's Soil Analytical Results Summary
Hero Lands Company, L.L.C. v Chevron U.S.A., Inc., et al.
Stella Field, Plaquemines Parish, Louisiana

Parameters	Units	Tract ID		SE										SE					SE										
		Sample ID		BC-14										BC-15					BC-16										
		Sample Date		11/2/2018										11/2/2018					11/5/2018										
		Sample Interval		2-4'		4-8'		8-10'		10-12'		18-20'		2-4'		4-6'		6-8'		10-12'	18-20'		0-4'	4-8'	8-10'	10-12'	18-20'		
		Sampler		MP&A	ICON	MP&A	ICON	MP&A	ICON	MP&A	ICON	MP&A	ICON	MP&A	ICON	MP&A	ICON	MP&A	ICON	MP&A	ICON	MP&A	ICON	MP&A	ICON	MP&A	ICON		
29-B Limit ^a	29-B Limit ^b	RECAP LSS ^c																											
Salts																													
% Moisture	%	NS	NS	NS	22.5	20.8	31.2	33.5	31.2	NA	NA	25.5	42.4	42.4	18.7	32.4	31.9	35.1	36.6	28.2	41.4	38.8	16.5	26.4	25	24.1	40.5	40.9	
% Saturation	%	NS	NS	NS	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 Chloride	mg/Kg-dry	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Cation Exchange Capacity (CEC)	meq/100g	NS	NS	NS	24.9	38.1	NA	56.2	40.1	NA	NA	25.4	NA	NA	NA	69.4	60.9	101	66.8	44.9	NA	NA	21.5	59.2	22.7	17.4	NA	NA	
Electrical Conductivity	mmhos/cm	4	8	NS	2.96	2.52	3.52	2.13	4.14	NA	NA	1.82	50.6	44.1	34.6	47.1	39.7	46.5	55.4	72	42.8	38.6	24.1	56.4	126	152	51.6	72.9	
pH	S.U.	6 - 9	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Exchangeable Sodium Percentage	%	15	25	NS	36.6	17	NA	65.8	95.8	NA	NA	41.5	NA	NA	NA	53.6	64.4	40.1	49.5	46	NA	NA	53.7	20.9	39.9	44.3	NA	NA	
Sodium Adsorption Ratio	Calc	12	14	NS	28.7	17.8	29.2	23	31.3	NA	NA	24.8	NA	NA	NA	76.3	71.4	74.1	80.3	93.7	NA	NA	53.5	107	148	150	NA	NA	
Soluble Calcium	meq/L	NS	NS	NS	1.01	2.01	1.86	0.92	1.6	NA	NA	0.77	NA	NA	NA	32.6	28.7	33.5	45.8	62	NA	NA	16.2	30.2	57.3	70.8	NA	NA	
Soluble Magnesium	meq/L	NS	NS	NS	0.51	0.79	1.03	0.78	0.97	NA	NA	0.44	NA	NA	NA	14.1	12.7	15.7	22.2	30	NA	NA	5	18	31.6	39.1	NA	NA	
Soluble Sodium	meq/L	NS	NS	NS	25	21	35.1	21.2	35.5	NA	NA	18.9	NA	NA	NA	369	325	368	468	636	NA	NA	174	524	985	1110	NA	NA	
SPLP Chloride	mg/L	NS	NS	NS	NA	NA	37.6	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	NS	NS	NS	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	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	51.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6790	NA	NA	
Metals																													
		29-B Limit ^a	RECAP LSS ^c																										
Arsenic	mg/Kg-wet	10	12	4.05	3.82	3.49	11.4	1.45	NA	NA	2.23	NA	NA	NA	7.21	5.6	2.98	3.39	3.24	NA	NA	4.83	5.53	3.16	3.97	NA	NA	NA	
Barium	mg/Kg-wet	NS	550	296	215	120	138	126	NA	NA	76	NA	NA	NA	158	172	191	159	131	NA	NA	3140	2819	198	137	NA	NA	NA	
True Total Barium	mg/Kg-dry	20000	NS	912	427	486	280	196	NA	NA	146	NA	NA	NA	508	334	407	319	210	NA	NA	16100	9900	538	361	NA	NA	NA	
Cadmium	mg/Kg-wet	10	3.9	0.4	0.464	0.484	0.46	<0.25	NA	NA	<0.371	NA	NA	NA	0.408	0.392	0.28	0.404	0.365	NA	NA	0.483	0.388	<0.4	<0.376	NA	NA	NA	
Chromium ^d	mg/Kg-wet	500	100	10.1	11.2	10.9	11.6	9.24	NA	NA	6.53	NA	NA	NA	13.7	11.8	10.2	8.8	7	NA	NA	9.9	21.6	8.6	7.29	NA	NA	NA	
Lead	mg/Kg-wet	500	100	9.91	10.1	10.6	10.6	8.68	NA	NA	5.64	NA	NA	NA	12.5	10.8	10.8	9.3	6.04	NA	NA	54.7	42.8	6.64	5.63	NA	NA	NA	
Mercury	mg/Kg-wet	10	2.3	<0.0926	<0.0737	<0.0995	<0.068	<0.0941	NA	NA	<0.08	NA	NA	NA	<0.104	<0.069	<0.103	<0.0589	<0.073	NA	NA	0.089	0.116	<0.074	<0.0704	NA	NA	NA	
Iron	mg/Kg-wet	NS	NS	NA	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-wet	10	20	<2.0	<3.14	<2.0	<3	<2.0	NA	NA	<2.97	NA	NA	NA	<1.99	<2.7	<2.00	<2.53	<2.86	NA	NA	<3.33	<2.92	<3	<3.01	NA	NA	NA	
Silver	mg/Kg-wet	200	39	<0.25	NA	<0.250	NA	<0.250	NA	NA	NA	NA	NA	NA	<0.249	NA	<0.250	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Strontium	mg/Kg-wet	NS	NS	NA	44	NA	35.5	NA	NA	NA	21.5	NA	NA	NA	NA	41.4	NA	43.9	32.8	NA	NA	152	73.3	43.9	38.3	NA	NA	NA	
Zinc	mg/Kg-wet	500	2300	43.1	45	50.8	50.1	37.5	NA	NA	28	NA	NA	NA	56.2	52.2	43.6	40.1	30.4	NA	NA	49.4	52.3	33.2	28.9	NA	NA	NA	
Hydrocarbons																													
Oil & Grease	%	1	NS	0.53	NA	0.07	NA	NA	NA	NA	NA	NA	NA	NA	0.17	NA	0.08	NA	NA	NA	NA	NA	NA	NA	0.48	0.13	NA	NA	NA
TPH-DRO (>C10-C28)	mg/Kg	NS	65	NA	3390	NA	511	NA	NA	NA	NA	NA	NA	2020	NA	1030	NA	139	NA	NA	NA	8870	6870	1600	573	NA	NA	NA	
TPH-ORO (>C28-C35)	mg/Kg	NS	180	NA	3640	NA	272	NA	NA	NA	NA	NA	NA	844	NA	480	NA	93.1	NA	NA	NA	4580	3550	830	296	NA	NA	NA	
Aliphatic C6-C8	mg/Kg	NS	1200	NA	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	NS	120	NA	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	NS	230	<149	NA	<120	NA	NA	NA	NA	NA	NA	NA	NA	<120	NA	<6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aliphatic >C12-C16	mg/Kg	NS	370	261	NA	267	NA	NA	NA	NA	NA	NA	NA	NA	227	NA	13.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aliphatic >C16-C35	mg/Kg	NS	7100	891	NA	471	NA	NA	NA	NA	NA	NA	NA	NA	396	NA	34.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aromatic >C8-C10	mg/Kg	NS	65	NA	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	NS	120	<23.8	NA	<24	NA	NA	NA	NA	NA	NA	NA	NA	<6	NA	<6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aromatic >C12-C16	mg/Kg	NS	180	<23.8	NA	25.3	NA	NA	NA	NA	NA	NA	NA	NA	17.1	NA	<6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aromatic >C16-C21	mg/Kg	NS	150	<23.8	NA	<24	NA	NA	NA	NA	NA	NA	NA	NA	12	NA	<6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aromatic >C21-C35	mg/Kg	NS	180	82.6	NA	59.3	NA	NA	NA	NA	NA	NA	NA	NA	45.9	NA	9.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Notes
(a) LDNR Statewide 29-B soil standards for uplands.
(b) LDNR Statewide 29-B soil standards for wetlands.
(c) LDEQ limiting screening RECAP standard for soil.
(d) GW_SS RECAP standard for Chromium (III).
NA = Not analyzed.
< = Not detected at or above the reporting limit shown.
Highlighted values exceed the matching standard.
29-B Salt Standards have only been applied to samples between 0-2 feet. Samples in the SW tract are compared to 29-B wetland salt standards, all other tracts are compared to 29-B upland salt standards.

Table 6
Plaintiff's Soil Analytical Results Summary
Hero Lands Company, L.L.C. v Chevron U.S.A., Inc., et al.
Stella Field, Plaquemines Parish, Louisiana

		Tract ID			Off Site				
		Sample ID			BC-29				
		Sample Date			2/13/2019				
		Sample Interval			0-2'	4-8'	20-22'	30-32'	
		Sampler			ICON	ICON	ICON	MP&A	ICON
Parameters	Units	29-B Limit ^a	29-B Limit ^b	RECAP LSS ^c					
Salts									
% Moisture	%	NS	NS	NS	19.3	33.2	37.6	32.6	30.6
% Saturation	%	NS	NS	NS	NA	NA	NA	NA	NA
Soluble Chloride	mg/Kg-dry	NS	NS	NS	NA	NA	NA	NA	NA
Cation Exchange Capacity (CEC)	meq/100g	NS	NS	NS	9.88	40.4	NA	NA	NA
Electrical Conductivity	mmhos/cm	4	8	NS	0.36	0.48	12	10.3	14.7
pH	S.U.	6 - 9	NS	NS	NA	NA	NA	NA	NA
Exchangeable Sodium Percentage	%	15	25	NS	0.39	0.51	NA	NA	NA
Sodium Adsorption Ratio	Calc	12	14	NS	1.1	1.03	NA	NA	NA
Soluble Calcium	meq/L	NS	NS	NS	1.9	1.85	NA	NA	NA
Soluble Magnesium	meq/L	NS	NS	NS	0.56	1.13	NA	NA	NA
Soluble Sodium	meq/L	NS	NS	NS	1.22	1.26	NA	NA	NA
SPLP Chloride	mg/L	NS	NS	NS	NA	NA	NA	NA	NA
SPLP Sodium	mg/L	NS	NS	NS	NA	NA	NA	NA	NA
29-B Leachate Chloride	mg/L	NS	NS	NS	NA	NA	937	NA	NA
Metals									
		29-B Limit ^a		RECAP LSS ^c					
Arsenic	mg/Kg-wet	10	12	2.01	3.66	NA	NA	NA	NA
Barium	mg/Kg-wet	NS	550	29.5	134	NA	NA	NA	NA
True Total Barium	mg/Kg-dry	20000	NS	128	223	NA	NA	NA	NA
Cadmium	mg/Kg-wet	10	3.9	<0.401	0.518	NA	NA	NA	NA
Chromium ^d	mg/Kg-wet	500	100	4.98	8.3	NA	NA	NA	NA
Lead	mg/Kg-wet	500	100	NA	NA	NA	NA	NA	NA
Mercury	mg/Kg-wet	10	2.3	<0.084	<0.069	NA	NA	NA	NA
Iron	mg/Kg-wet	NS	NS	4253	9486	NA	NA	NA	NA
Selenium	mg/Kg-wet	10	20	NA	NA	NA	NA	NA	NA
Silver	mg/Kg-wet	200	39	NA	NA	NA	NA	NA	NA
Strontium	mg/Kg-wet	NS	NS	6.19	22.4	NA	NA	NA	NA
Zinc	mg/Kg-wet	500	2300	23.7	40.7	NA	NA	NA	NA
Hydrocarbons									
Oil & Grease	%	1	NS	NA	NA	NA	NA	NA	NA
TPH-DRO (>C10-C28)	mg/Kg	NS	65	NA	NA	NA	NA	NA	NA
TPH-ORO (>C28-C35)	mg/Kg	NS	180	NA	NA	NA	NA	NA	NA
Aliphatic C6-C8	mg/Kg	NS	1200	NA	NA	NA	NA	NA	NA
Aliphatic >C8-C10	mg/Kg	NS	120	NA	NA	NA	NA	NA	NA
Aliphatic >C10-C12	mg/Kg	NS	230	NA	NA	NA	NA	NA	NA
Aliphatic >C12-C16	mg/Kg	NS	370	NA	NA	NA	NA	NA	NA
Aliphatic >C16-C35	mg/Kg	NS	7100	NA	NA	NA	NA	NA	NA
Aromatic >C8-C10	mg/Kg	NS	65	NA	NA	NA	NA	NA	NA
Aromatic >C10-C12	mg/Kg	NS	120	NA	NA	NA	NA	NA	NA
Aromatic >C12-C16	mg/Kg	NS	180	NA	NA	NA	NA	NA	NA
Aromatic >C16-C21	mg/Kg	NS	150	NA	NA	NA	NA	NA	NA
Aromatic >C21-C35	mg/Kg	NS	180	NA	NA	NA	NA	NA	NA

Notes

(a) LDNR Statewide 29-B soil standards for uplands.

(b) LDNR Statewide 29-B soil standards for wetlands.

(c) LDEQ limiting screening RECAP standard for soil.

(d) GW_SS RECAP standard for Chromium (III).

NA = Not analyzed.

< = Not detected at or above the reporting limit shown.

Highlighted values exceed the matching standard.

29-B Salt Standards have only been applied to samples between 0-2 feet. Samples in the SW tract are compared to 29-B wetland salt standards, all other tracts are compared to 29-B upland salt standards.

Table 7
Soil Dioxin and Furan Analytical Results Summary
Hero Lands Company, L.L.C. v Chevron U.S.A., Inc., et al.
Stella Field, Plaquemines Parish, Louisiana

Sample ID		BC-8R				SB-4R		BC-16R			
Sample Date		6/24/2019				sure...		6/24/2019			
Sample Interval		0-2'	2-4'	4-6'	4-6'	0-2'	0-2'	0-2'	0-2'	2-4'	2-4'
Sampler		ERM	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM
Parameters	Units										
Dioxin & Furans											
2,3,7,8-TCDD	pg/g-dry	0.884	1.17	2.07	4.28	0.484	<0.761	0.404	<0.775	0.549	<0.705
1,2,3,7,8-PeCDD	pg/g-dry	4.1	4.22	6.9	18.4	0.866	1.82	1.05	<1.02	1.2	1.34
1,2,3,4,7,8-HxCDD	pg/g-dry	2.51	1.78	2.37	10.4	<0.141	<0.827	<0.283	1.7	<0.431	1.38
1,2,3,6,7,8-HxCDD	pg/g-dry	5.55	2.9	8.71	17.7	1.16	<1.72	3.37	5.08	6.14	3.79
1,2,3,7,8,9-HxCDD	pg/g-dry	4.93	2.84	8.21	16.8	1.37	1.66	3.2	3.56	4.09	3.03
1,2,3,4,6,7,8-HpCDD	pg/g-dry	52.9	26.5	64	60.6	16.1	22	136	253	343	160
1,2,3,4,6,7,8,9-OCDD	pg/g-dry	867	393	440	321	481	511	1980	3930	5860	2870
2,3,7,8-TCDF	pg/g-dry	12.2	13.1	22.9	34.2	4.47	6.01	1.95	3.59	2.12	2.08
1,2,3,7,8-PeCDF	pg/g-dry	10.3	10.5	22	48.4	2.9	4.95	1.87	2.7	1.56	1.58
2,3,4,7,8-PeCDF	pg/g-dry	8.56	10.6	18.4	29.5	2.86	3.82	1.92	2.01	2.16	1.9
1,2,3,4,7,8-HxCDF	pg/g-dry	14	9.48	29.2	62.7	3.13	5.19	2.1	3.01	2.68	2.03
1,2,3,6,7,8-HxCDF	pg/g-dry	8.05	8.59	19.3	35.4	2.29	4.01	1.75	1.8	1.61	1.43
2,3,4,6,7,8-HxCDF	pg/g-dry	4.9	5.98	11.5	17.6	1.4	2.3	1.2	1.87	1.59	1.36
1,2,3,7,8,9-HxCDF	pg/g-dry	0.982	<2.32	3.17	7.63	<0.469	<0.925	0.488	<0.948	<0.762	<0.745
1,2,3,4,6,7,8-HpCDF	pg/g-dry	28.4	21.5	66.8	103	5.43	11.1	10.3	17.4	12	10.4
1,2,3,4,7,8,9-HpCDF	pg/g-dry	2.01	<2.15	6.72	11.1	<1.88	1.25	0.731	1.43	<4.56	1.02
1,2,3,4,6,7,8,9-OCDF	pg/g-dry	20.4	10.4	140	36.5	3.36	7.4	16.4	30.8	38.9	19.2
Total Tetrachlorodibenzo-p-dioxin	pg/g-dry	30.7	32.3	19.4	123	13	13.1	15.1	12.4	16	20.3
Total Pentachlorodibenzo-p-dioxin	pg/g-dry	58.8	39.2	68.4	225	26.6	30.2	26.1	23.2	35.5	29.2
Total Hexachlorodibenzo-p-dioxin	pg/g-dry	82.3	30.7	91.2	199	30.8	37	49.1	56.8	68.4	58.2
Total Heptachlorodibenzo-p-dioxin	pg/g-dry	121	55.3	112	106	39.5	51.5	310	550	776	355
Total Tetrachlorodibenzofuran	pg/g-dry	112	135	150	281	47.9	67.1	18.1	26.7	25.4	23.9
Total Pentachlorodibenzofuran	pg/g-dry	118	152	151	414	32.7	45.2	24.7	22.3	22.1	19.1
Total Hexachlorodibenzofuran	pg/g-dry	75.5	70.3	148	287	19	20	21.7	28.5	37.4	18.4
Total Heptachlorodibenzofuran	pg/g-dry	46.8	21.5	106	134	1.62	11.1	31.8	64	201	36.3
TEQ WHO2005 ND=0	pg/g-dry	14.2	9.28	27.2	54	4.04	4.57	5.56	6.2	9.59	5.98
TEQ WHO2005 ND=0.5	pg/g-dry	14.2	10.5	NA	54.3	NA	5.18	NA	7.23	NA	6.39

Notes

NA = Not analyzed.

< = Not detected at or above the reporting limit shown.

Table 8
NORM Soil Data

Hero Lands Company, L.L.C. v Chevron U.S.A., Inc., et al.
Stella Field, Plaquemines Parish, Louisiana

Sample ID		R1					R2				R3		SS-13	SS-17	BC-2R
Sample Date		5/8/2019					5/8/2019				5/8/2019		1/24/2020	1/24/2020	1/24/2020
Sample Interval		0-6"	0-6"	6-12"	6-12"	12-18"	0-6"	0-6"	6-12"	6-12"	0-6"	0-6"	0-3'	0-3'	0-3'
Sampler		ERM	ICON	ERM	ICON	ERM	ERM	ICON	ERM	ICON	ERM	ICON	ICON	ICON	ICON
Parameters	Units														
Radium-226	pCi/g dry	1.31	1.30	1.03	1.50	1.20	17.7	16.33	1.61	1.98	5.84	16.09	1.539	1.112	2.972
Radium-228	pCi/g dry	1.37	1.84	1.22	1.59	1.47	4.87	4.44	1.51	2.26	3.08	8.61	1.144	1.126	1.100

Notes: _____
Parameters measured by EPA Method 901.1

Table 9
Defendant's Soil Analytical Results Summary
Hero Lands Company, L.L.C. v Chevron U.S.A., Inc., et al.
Stella Field, Plaquemines Parish, Louisiana

Tract ID					NW		NW						Off Site									
Sample ID					BC-1R		BC-2R						BC-8R2									
Sample Date					12/19/2019		12/20/2019						12/17/2019									
Sample Interval					4-6'		0-1'		1-2'		2-3'		0-2'		2-4'		4-6'		7/9/2020		12/17/2019	
Sampler					ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ERM	ICON	
Parameters	Units	29-B Limit ^a	29-B Limit ^b	RECAP LSS ^c																		
Salts																						
% Moisture	%	NS	NS	NS	NA	22.4	9.5	NA	23.5	NA	26.1	NA	NA	NA	19.1	NA	11.0	NA	NA	53.4	NA	
Cation Exchange Capacity (CEC)	meq/100g	NS	NS	NS	NA	NA	10.1	NA	34.7	NA	46.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Electrical Conductivity	mmhos/cm	4	8	NS	NA	NA	3.21	NA	3.82	NA	7.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
pH	S.U.	6 - 9	NS	NS	NA	NA	8.65	NA	8.17	NA	8.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Exchangeable Sodium Percentage	%	15	25	NS	NA	NA	25.6	NA	34.7	NA	51.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Sodium Adsorption Ratio	Calc	12	14	NS	NA	NA	20.6	NA	25.9	NA	42.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Soluble Calcium	meq/L	NS	NS	NS	NA	NA	3.04	NA	1.66	NA	3.26	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Soluble Magnesium	meq/L	NS	NS	NS	NA	NA	1.4	NA	0.78	NA	1.42	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Soluble Sodium	meq/L	NS	NS	NS	NA	NA	30.7	NA	28.6	NA	65.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Metals			29-B Limit ^a	RECAP LSS ^c																		
Arsenic	mg/Kg-wet	10	12	20.00	5.59	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Barium	mg/Kg-wet	NS	550	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
True Total Barium	mg/Kg	20000	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SPLP Barium	mg/L	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	0.315	NA	NA	NA	NA	NA	0.048	NA	NA	NA	
Lead	mg/Kg-wet	500	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SPLP Lead	mg/L	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0028	NA	NA	NA	
Hydrocarbons																						
Oil & Grease	%	1	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.749	NA	4.71	NA	NA	NA	<0.107	NA	
TPH-DRO (>C10-C28)	mg/Kg	NS	65	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	24700	NA	NA	NA	NA	NA	4390	
TPH-ORO (>C28-C35)	mg/Kg	NS	180	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	17200	NA	NA	NA	NA	NA	2250	
Aliphatic C6-C8	mg/Kg	NS	1200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	214	NA	284	NA	NA	NA	<24	NA	
Aliphatic >C8-C10	mg/Kg	NS	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	375	NA	1110	NA	NA	NA	<24	NA	
Aliphatic >C10-C12	mg/Kg	NS	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	297	NA	3850	NA	NA	NA	<5.96	NA	
Aliphatic >C12-C16	mg/Kg	NS	370	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1330	NA	12200	NA	NA	NA	<5.96	NA	
Aliphatic >C16-C35	mg/Kg	NS	7100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8880	NA	30800	NA	NA	NA	<5.96	NA	
Aromatic >C8-C10	mg/Kg	NS	65	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	185	NA	810	NA	NA	NA	<24	NA	
Aromatic >C10-C12	mg/Kg	NS	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	37.7	NA	257	NA	NA	NA	<5.96	NA	
Aromatic >C12-C16	mg/Kg	NS	180	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	205	NA	821	NA	NA	NA	<5.96	NA	
Aromatic >C16-C21	mg/Kg	NS	150	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	210	NA	626	NA	NA	NA	<5.96	NA	
Aromatic >C21-C35	mg/Kg	NS	180	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2790	NA	3470	NA	NA	NA	<5.96	NA	
PAHs																						
2-Methylnaphthalene	mg/Kg	NS	1.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Acenaphthene	mg/Kg	NS	220	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Acenaphthylene	mg/Kg	NS	88	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Anthracene	mg/Kg	NS	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Benzo(a)anthracene	mg/Kg	NS	0.62	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Benzo(a)pyrene	mg/Kg	NS	0.33	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Benzo(b)fluoranthene	mg/Kg	NS	0.62	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Benzo(k)fluoranthene	mg/Kg	NS	6.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Chrysene	mg/Kg	NS	62	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Dibenz(a,h)anthracene	mg/Kg	NS	0.33	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Fluoranthene	mg/Kg	NS	220	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Fluorene	mg/Kg	NS	230	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	NS	0.62	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Naphthalene	mg/Kg	NS	1.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Phenanthrene	mg/Kg	NS	660	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Pyrene	mg/Kg	NS	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Notes
(a) LDNR Statewide 29-B soil standards for uplands.
(b) LDNR Statewide 29-B soil standards for wetlands.
(c) LDEQ limiting screening RECAP standard for soil.
NA = Not analyzed.
< = Not detected at or above the reporting limit shown.
Highlighted values exceed the matching standard.
29-B Salt Standards have only been applied to samples between 0-2 feet.
Samples in the SW tract are compared to 29-B wetland salt standards, all other tracts are compared to 29-B upland salt standards.

Table 9
Defendant's Soil Analytical Results Summary
Hero Lands Company, L.L.C. v Chevron U.S.A., Inc., et al.
Stella Field, Plaquemines Parish, Louisiana

Tract ID					SW				SW			SW				SW				
Sample ID					BC-9R				BC-10			BC-10E				BC-10R				
Sample Date					1/14/2020				7/17/2020			7/17/2020				1/13/2020				
Sample Interval					0-2'		2-4'		4-6'	10-12'	12-14'	0-2'		2-4'		4-6'	0-2'		2-4'	
Sampler					ERM	ICON	ERM	ICON	ERM	ERM	ERM	ERM	ICON	ERM	ICON	ERM	ERM	ICON	ERM	ICON
Parameters	Units	29-B Limit ^a	29-B Limit ^b	RECAP LSS ^c																
Salts																				
% Moisture	%	NS	NS	NS	27.0	NA	26.4	NA	NA	NA	28.8	NA	33.8	NA	47.7	35.3	NA	31.9	NA	
Cation Exchange Capacity (CEC)	meq/100g	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Electrical Conductivity	mmhos/cm	4	8	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
pH	S.U.	6-9	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Exchangeable Sodium Percentage	%	15	25	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Sodium Adsorption Ratio	Calc	12	14	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Soluble Calcium	meq/L	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Soluble Magnesium	meq/L	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Soluble Sodium	meq/L	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Metals																				
		29-B Limit ^a	RECAP LSS ^c																	
Arsenic	mg/Kg-wet	10	12	7.35	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Barium	mg/Kg-wet	NS	550	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
True Total Barium	mg/Kg	20000	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SPLP Barium	mg/L	NS	NS	NA	NA	NA	NA	0.33	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Lead	mg/Kg-wet	500	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SPLP Lead	mg/L	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Hydrocarbons																				
Oil & Grease																				
	%	1	NS	0.247	NA	<0.068	NA	NA	NA	NA	0.086	0.11	<0.076	0.06	0.128	<0.077	NA	0.195	NA	
TPH-DRO (>C10-C28)	mg/Kg	NS	65	NA	NA	NA	NA	NA	NA	NA	NA	394	NA	53.7	NA	NA	NA	NA	89.9	
TPH-ORO (>C28-C35)	mg/Kg	NS	180	NA	NA	NA	NA	NA	NA	NA	NA	335	NA	109	NA	NA	NA	NA	116	
Aliphatic C6-C8	mg/Kg	NS	1200	<29.5	NA	<26.9	NA	NA	<27.8	<26.8	<31.8	NA	<26.2	NA	<30.2	<31.4	NA	<28.8	NA	
Aliphatic >C8-C10	mg/Kg	NS	120	<29.5	NA	<26.9	NA	NA	<27.8	<26.8	<31.8	NA	<26.2	NA	<30.2	<31.4	NA	<28.8	NA	
Aliphatic >C10-C12	mg/Kg	NS	230	<5.97	NA	<5.98	NA	NA	56.7	<5.93	<8.37	NA	<5.98	NA	<5.89	<6.00	NA	<6.00	NA	
Aliphatic >C12-C16	mg/Kg	NS	370	<5.97	NA	<5.98	NA	NA	<468	<5.93	<5.97	NA	<5.98	NA	<5.89	<6.00	NA	<6.00	NA	
Aliphatic >C16-C35	mg/Kg	NS	7100	<5.97	NA	<5.98	NA	NA	1380	205	130	NA	11.1	NA	20.8	<6.00	NA	<6.00	NA	
Aromatic >C8-C10	mg/Kg	NS	65	<29.5	NA	<26.9	NA	NA	<27.8	<26.8	<31.8	NA	<26.2	NA	<30.2	<30.0	NA	<28.8	NA	
Aromatic >C10-C12	mg/Kg	NS	120	<5.97	NA	<5.98	NA	NA	20.8	<5.93	<5.96	NA	<5.98	NA	<5.89	<6.00	NA	<6.00	NA	
Aromatic >C12-C16	mg/Kg	NS	180	<5.97	NA	<5.98	NA	NA	99.3	15.1	<5.96	NA	<5.98	NA	<5.89	<6.00	NA	<6.00	NA	
Aromatic >C16-C21	mg/Kg	NS	150	<5.97	NA	<5.98	NA	NA	87.9	12.9	<5.96	NA	<5.98	NA	<5.89	<6.00	NA	<6.00	NA	
Aromatic >C21-C35	mg/Kg	NS	180	<5.97	NA	<5.98	NA	NA	463	59.7	13.7	NA	<5.98	NA	19.6	<6.00	NA	<6.00	NA	
PAHs																				
2-Methylnaphthalene	mg/Kg	NS	1.7	NA	NA	NA	NA	NA	0.550	<0.033	<0.033	NA	<0.033	NA	<0.032	NA	NA	NA	NA	
Acenaphthene	mg/Kg	NS	220	NA	NA	NA	NA	NA	<0.325	<0.033	<0.033	NA	<0.033	NA	<0.032	NA	NA	NA	NA	
Acenaphthylene	mg/Kg	NS	88	NA	NA	NA	NA	NA	<0.325	<0.033	<0.033	NA	<0.033	NA	<0.032	NA	NA	NA	NA	
Anthracene	mg/Kg	NS	120	NA	NA	NA	NA	NA	<0.325	<0.033	<0.033	NA	<0.033	NA	<0.032	NA	NA	NA	NA	
Benzo(a)anthracene	mg/Kg	NS	0.62	NA	NA	NA	NA	NA	0.377	<0.033	<0.033	NA	<0.033	NA	<0.032	NA	NA	NA	NA	
Benzo(a)pyrene	mg/Kg	NS	0.33	NA	NA	NA	NA	NA	<0.325	<0.033	<0.033	NA	<0.033	NA	<0.032	NA	NA	NA	NA	
Benzo(b)fluoranthene	mg/Kg	NS	0.62	NA	NA	NA	NA	NA	<0.325	<0.033	<0.033	NA	<0.033	NA	<0.032	NA	NA	NA	NA	
Benzo(k)fluoranthene	mg/Kg	NS	6.2	NA	NA	NA	NA	NA	<0.325	<0.033	<0.033	NA	<0.033	NA	<0.032	NA	NA	NA	NA	
Chrysene	mg/Kg	NS	62	NA	NA	NA	NA	NA	<0.325	<0.033	<0.033	NA	<0.033	NA	<0.032	NA	NA	NA	NA	
Dibenz(a,h)anthracene	mg/Kg	NS	0.33	NA	NA	NA	NA	NA	<0.325	<0.033	<0.033	NA	<0.033	NA	<0.032	NA	NA	NA	NA	
Fluoranthene	mg/Kg	NS	220	NA	NA	NA	NA	NA	0.790	<0.033	<0.033	NA	<0.033	NA	<0.032	NA	NA	NA	NA	
Fluorene	mg/Kg	NS	230	NA	NA	NA	NA	NA	0.594	<0.033	<0.033	NA	<0.033	NA	<0.032	NA	NA	NA	NA	
Indeno(1,2,3-cd)pyrene	mg/Kg	NS	0.62	NA	NA	NA	NA	NA	<0.325	<0.033	<0.033	NA	<0.033	NA	<0.032	NA	NA	NA	NA	
Naphthalene	mg/Kg	NS	1.5	NA	NA	NA	NA	NA	<0.325	<0.033	<0.033	NA	<0.033	NA	<0.032	NA	NA	NA	NA	
Phenanthrene	mg/Kg	NS	660	NA	NA	NA	NA	NA	1.89	0.066	0.086	NA	<0.033	NA	<0.032	NA	NA	NA	NA	
Pyrene	mg/Kg	NS	230	NA	NA	NA	NA	NA	0.459	<0.033	<0.033	NA	<0.033	NA	<0.032	NA	NA	NA	NA	

Notes
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(b) LDNR Statewide 29-B soil standards for wetlands.
(c) LDEQ limiting screening RECAP standard for soil.
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Highlighted values exceed the matching standard.
29-B Salt Standards have only been applied to samples between 0-2 feet.
Samples in the SW tract are compared to 29-B wetland salt standards, all other tracts are compared to 29-B upland salt standards.

Table 9
Defendant's Soil Analytical Results Summary
Hero Lands Company, L.L.C. v Chevron U.S.A., Inc., et al.
Stella Field, Plaquemines Parish, Louisiana

Tract ID					SW		SW		SE		SE						SW					
Sample ID					BC-10R2		BC-11R		BC-15		BC-16R2						BC-21R					
Sample Date					3/19/2020		1/14/2020		7/8/2020		7/16/2020						1/9/2020					
Sample Interval					4-6'		0-2'		2-4'		2-4'		0-2'		2-4'		4-6'		6-8'		0-2'	
Sampler					HET	ICON	ERM	ICON	ERM	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	
Parameters	Units	29-B Limit ^a	29-B Limit ^b	RECAP LSS ^c																		
Salts																						
% Moisture	%	NS	NS	NS	30.1	NA	30.5	NA	NA	30.1	NA	26.3	28.2	NA	NA	34.2	35.2	39.8	NA	NA	28.9	
Cation Exchange Capacity (CEC)	meq/100g	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Electrical Conductivity	mmhos/cm	4	8	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
pH	S.U.	6 - 9	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Exchangeable Sodium Percentage	%	15	25	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Sodium Adsorption Ratio	Calc	12	14	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Soluble Calcium	meq/L	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Soluble Magnesium	meq/L	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Soluble Sodium	meq/L	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Metals			29-B Limit^a	RECAP LSS^c																		
Arsenic	mg/Kg-wet	10	12	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Barium	mg/Kg-wet	NS	550	NS	NA	NA	NA	NA	NA	NA	NA	NA	209	NA	NA	NA	444	NA	NA	NA	1905	
True Total Barium	mg/Kg	20000	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SPLP Barium	mg/L	NS	NS	NS	NA	NA	NA	NA	0.023	NA	NA	NA	NA	0.192	NA	NA	NA	0.131	NA	0.28	NA	
Lead	mg/Kg-wet	500	100	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SPLP Lead	mg/L	NS	NS	NS	NA	NA	NA	NA	0.0060	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Hydrocarbons																						
Oil & Grease	%	1	NS	NS	0.253	NA	0.248	1.06	NA	NA	NA	0.164	1.78	NA	NA	<0.076	NA	<0.083	NA	NA	NA	
TPH-DRO (>C10-C28)	mg/Kg	NS	65	NS	NA	4130	NA	4670	NA	NA	1620	NA	8820	NA	NA	NA	<50	NA	<50	NA	NA	
TPH-ORO (>C28-C35)	mg/Kg	NS	180	NS	NA	2590	NA	4380	NA	NA	716	NA	4290	NA	NA	NA	<50	NA	<50	NA	NA	
Aliphatic C6-C8	mg/Kg	NS	1200	NS	<30.0	NA	<29.8	NA	NA	29.2	NA	<27.3	NA	NA	NA	<31.8	NA	<30.2	NA	NA	NA	
Aliphatic >C8-C10	mg/Kg	NS	120	NS	<30.0	NA	<29.8	NA	NA	52.9	NA	<27.3	NA	NA	NA	<31.8	NA	<30.2	NA	NA	NA	
Aliphatic >C10-C12	mg/Kg	NS	230	NS	<30.0	NA	<29.9	NA	NA	114	NA	114	NA	NA	NA	<5.87	NA	<6.00	NA	NA	NA	
Aliphatic >C12-C16	mg/Kg	NS	370	NS	172	NA	319	NA	NA	597	NA	1500	NA	NA	NA	<5.87	NA	<6.00	NA	NA	NA	
Aliphatic >C16-C35	mg/Kg	NS	7100	NS	1370	NA	793	NA	NA	1440	NA	2170	NA	NA	NA	<5.87	NA	<6.00	NA	NA	NA	
Aromatic >C8-C10	mg/Kg	NS	65	NS	<10.0	NA	<29.8	NA	NA	<24.0	NA	<27.3	NA	NA	NA	<31.8	NA	<30.2	NA	NA	NA	
Aromatic >C10-C12	mg/Kg	NS	120	NS	<10.0	NA	7.29	NA	NA	33.3	NA	<29.9	NA	NA	NA	<5.87	NA	<6.00	NA	NA	NA	
Aromatic >C12-C16	mg/Kg	NS	180	NS	30.1	NA	37.9	NA	NA	136	NA	<29.9	NA	NA	NA	<5.87	NA	<6.00	NA	NA	NA	
Aromatic >C16-C21	mg/Kg	NS	150	NS	63.5	NA	35.6	NA	NA	120	NA	43.8	NA	NA	NA	<5.87	NA	<6.00	NA	NA	NA	
Aromatic >C21-C35	mg/Kg	NS	180	NS	176	NA	232	NA	NA	674	NA	425	NA	NA	NA	<5.87	NA	<6.00	NA	NA	NA	
PAHs																						
2-Methylnaphthalene	mg/Kg	NS	1.7	NS	NA	NA	<0.0326	NA	NA	2.18	NA	<0.0328	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Acenaphthene	mg/Kg	NS	220	NS	NA	NA	<0.0326	NA	NA	1.21	NA	<0.0328	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Acenaphthylene	mg/Kg	NS	88	NS	NA	NA	<0.0326	NA	NA	<0.324	NA	<0.0328	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Anthracene	mg/Kg	NS	120	NS	NA	NA	<0.0326	NA	NA	0.709	NA	<0.0328	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Benzo(a)anthracene	mg/Kg	NS	0.62	NS	NA	NA	<0.0326	NA	NA	0.634	NA	0.0424	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Benzo(a)pyrene	mg/Kg	NS	0.33	NS	NA	NA	<0.0326	NA	NA	<0.324	NA	<0.0328	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Benzo(b)fluoranthene	mg/Kg	NS	0.62	NS	NA	NA	<0.0326	NA	NA	0.498	NA	<0.0328	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Benzo(k)fluoranthene	mg/Kg	NS	6.2	NS	NA	NA	<0.0326	NA	NA	<0.324	NA	<0.0328	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Chrysene	mg/Kg	NS	62	NS	NA	NA	<0.0326	NA	NA	0.717	NA	0.0804	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Dibenz(a,h)anthracene	mg/Kg	NS	0.33	NS	NA	NA	<0.0326	NA	NA	<0.324	NA	<0.0328	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Fluoranthene	mg/Kg	NS	220	NS	NA	NA	<0.0326	NA	NA	3.27	NA	0.0542	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Fluorene	mg/Kg	NS	230	NS	NA	NA	<0.0326	NA	NA	0.960	NA	<0.0328	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Indeno(1,2,3-cd)pyrene	mg/Kg	NS	0.62	NS	NA	NA	<0.0326	NA	NA	<0.324	NA	<0.0328	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Naphthalene	mg/Kg	NS	1.5	NS	NA	NA	<0.0326	NA	NA	1.47	NA	<0.0328	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Phenanthrene	mg/Kg	NS	660	NS	NA	NA	<0.0326	NA	NA	3.45	NA	0.0985	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Pyrene	mg/Kg	NS	230	NS	NA	NA	<0.0326	NA	NA	2.46	NA	0.149	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Notes
(a) LDNR Statewide 29-B soil standards for uplands.
(b) LDNR Statewide 29-B soil standards for wetlands.
(c) LDEQ limiting screening RECAP standard for soil.
NA = Not analyzed.
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Highlighted values exceed the matching standard.
29-B Salt Standards have only been applied to samples between 0-2 feet.
Samples in the SW tract are compared to 29-B wetland salt standards, all other tracts are compared to 29-B upland salt standards.

Table 9
Defendant's Soil Analytical Results Summary
Hero Lands Company, L.L.C. v Chevron U.S.A., Inc., et al.
Stella Field, Plaquemines Parish, Louisiana

Tract ID					SW						NW		NE		SE							
Sample ID					BC-23R						SB-1R		SB-3R		SB-4SW							
Sample Date					1/6/2020						1/8/2020		12/17/2019		7/17/2020							
Sample Interval					0-1'		1-2'		2-3'		2-4'		0-2'		2-4'		6-8'		10-12'			
Sampler					ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON		
Parameters	Units	29-B Limit ^a	29-B Limit ^b	RECAP LSS ^c																		
Salts																						
% Moisture	%	NS	NS	NS	21.9	NA	25.5	NA	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
Cation Exchange Capacity (CEC)	meq/100g	NS	NS	NS	69.2	NA	59.5	NA	58	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
Electrical Conductivity	mmhos/cm	4	8	NS	0.69	NA	6.06	NA	6.58	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
pH	S.U.	6 - 9	NS	NS	4.88	NA	6.59	NA	6.92	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
Exchangeable Sodium Percentage	%	15	25	NS	1.89	NA	16.2	NA	20.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
Sodium Adsorption Ratio	Calc	12	14	NS	4.62	NA	21.3	NA	24.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
Soluble Calcium	meq/L	NS	NS	NS	1.15	NA	5.36	NA	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
Soluble Magnesium	meq/L	NS	NS	NS	0.58	NA	2.93	NA	2.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
Soluble Sodium	meq/L	NS	NS	NS	4.3	NA	43.4	NA	48.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
Metals			29-B Limit ^a	RECAP LSS ^c																		
Arsenic	mg/Kg-wet		10	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
Barium	mg/Kg-wet		NS	550	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
True Total Barium	mg/Kg		20000	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SPLP Barium	mg/L		NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
Lead	mg/Kg-wet		500	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SPLP Lead	mg/L		NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
Hydrocarbons																						
Oil & Grease	%		1	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
TPH-DRO (>C10-C28)	mg/Kg		NS	65	NA	NA	NA	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	NA	NA	NA			
TPH-ORO (>C28-C35)	mg/Kg		NS	180	NA	NA	NA	NA	NA	NA	NA	<10	NA	163	NA	5120	NA	1020	NA			
Aliphatic C6-C8	mg/Kg		NS	1200	NA	NA	NA	NA	NA	NA	NA	<31.7	NA	<24.8	NA	93.3	NA	58.9	NA			
Aliphatic >C8-C10	mg/Kg		NS	120	NA	NA	NA	NA	NA	NA	NA	<31.7	NA	<24.8	NA	124	NA	124	NA			
Aliphatic >C10-C12	mg/Kg		NS	230	NA	NA	NA	NA	NA	NA	NA	<5.73	NA	<6.00	NA	<5.90	NA	8.81	NA			
Aliphatic >C12-C16	mg/Kg		NS	370	NA	NA	NA	NA	NA	NA	NA	<5.73	NA	9.41	NA	<5.90	NA	62.6	NA			
Aliphatic >C16-C35	mg/Kg		NS	7100	NA	NA	NA	NA	NA	NA	NA	<5.73	NA	25.9	NA	52.8	NA	206	NA			
Aromatic >C8-C10	mg/Kg		NS	65	NA	NA	NA	NA	NA	NA	NA	<31.7	NA	<24.8	NA	38.6	NA	37.9	NA			
Aromatic >C10-C12	mg/Kg		NS	120	NA	NA	NA	NA	NA	NA	NA	<5.73	NA	<6.00	NA	<5.90	NA	<5.83	NA			
Aromatic >C12-C16	mg/Kg		NS	180	NA	NA	NA	NA	NA	NA	NA	<5.73	NA	<6.00	NA	<5.90	NA	13.4	NA			
Aromatic >C16-C21	mg/Kg		NS	150	NA	NA	NA	NA	NA	NA	NA	<5.73	NA	<6.00	NA	<5.90	NA	11.5	NA			
Aromatic >C21-C35	mg/Kg		NS	180	NA	NA	NA	NA	NA	NA	NA	<5.73	NA	7.27	NA	13.1	NA	51.4	NA			
PAHs																						
2-Methylnaphthalene	mg/Kg		NS	1.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.926	NA			
Acenaphthene	mg/Kg		NS	220	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.033	NA			
Acenaphthylene	mg/Kg		NS	88	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.033	NA			
Anthracene	mg/Kg		NS	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.033	NA			
Benzo(a)anthracene	mg/Kg		NS	0.62	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.033	NA			
Benzo(a)pyrene	mg/Kg		NS	0.33	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.033	NA			
Benzo(b)fluoranthene	mg/Kg		NS	0.62	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.033	NA			
Benzo(k)fluoranthene	mg/Kg		NS	6.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.033	NA			
Chrysene	mg/Kg		NS	62	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.033	NA			
Dibenz(a,h)anthracene	mg/Kg		NS	0.33	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.033	NA			
Fluoranthene	mg/Kg		NS	220	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.033	NA			
Fluorene	mg/Kg		NS	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.033	NA			
Indeno(1,2,3-cd)pyrene	mg/Kg		NS	0.62	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.033	NA			
Naphthalene	mg/Kg		NS	1.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.249	NA			
Phenanthrene	mg/Kg		NS	660	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.367	NA			
Pyrene	mg/Kg		NS	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.033	NA			

Notes
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Table 9
Defendant's Soil Analytical Results Summary
Hero Lands Company, L.L.C. v Chevron U.S.A., Inc., et al.
Stella Field, Plaquemines Parish, Louisiana

Tract ID					SE				SE				SE						SW	
Sample ID					SB-4R				SB-4NW				SB-5R						SB-6R2	
Sample Date					7/16/2020				7/16/2020				1/9/2020						1/22/2020	
Sample Interval					0-2'		2-4'		0-2'		2-4'		0-2'		2-4'		4-6'		2-4'	
Sampler					ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON
Parameters	Units	29-B Limit ^a	29-B Limit ^b	RECAP LSS ^c																
Salts																				
% Moisture	%	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	19.0	19.6	NA	NA	42.4	NA	NA	NA	
Cation Exchange Capacity (CEC)	meq/100g	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Electrical Conductivity	mmhos/cm	4	8	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
pH	S.U.	6 - 9	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Exchangeable Sodium Percentage	%	15	25	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Sodium Adsorption Ratio	Calc	12	14	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Soluble Calcium	meq/L	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Soluble Magnesium	meq/L	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Soluble Sodium	meq/L	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Metals																				
		29-B Limit ^a		RECAP LSS ^c																
Arsenic	mg/Kg-wet	10		12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Barium	mg/Kg-wet	NS		550	NA	NA	NA	NA	NA	NA	NA	NA	2388	NA	NA	NA	NA	NA	NA	
True Total Barium	mg/Kg	20000		NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SPLP Barium	mg/L	NS		NS	NA	NA	NA	NA	NA	NA	NA	1.62	NA	NA	NA	NA	NA	NA	NA	
Lead	mg/Kg-wet	500		100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SPLP Lead	mg/L	NS		NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Hydrocarbons																				
Oil & Grease	%	1		NS	NA	NA	NA	NA	NA	NA	NA	0.154	NA	NA	NA	<0.087	NA	0.461	1.27	
TPH-DRO (>C10-C28)	mg/Kg	NS		65	NA	251	NA	6750	NA	251	NA	2470	NA	217	NA	64.4	NA	NA	3540	
TPH-ORO (>C28-C35)	mg/Kg	NS		180	NA	261	NA	3610	NA	193	NA	2820	NA	346	NA	69.9	NA	NA	2450	
Aliphatic C6-C8	mg/Kg	NS		1200	<25.2	NA	<25.7	NA	<26.9	NA	<25.8	NA	<27.9	NA	NA	<28.8	NA	<27.2	NA	
Aliphatic >C8-C10	mg/Kg	NS		120	32.9	NA	36.4	NA	<26.9	NA	<25.8	NA	<27.9	NA	NA	<28.8	NA	<27.2	NA	
Aliphatic >C10-C12	mg/Kg	NS		230	15.8	NA	105	NA	<5.84	NA	<5.87	NA	<5.99	NA	NA	<5.95	NA	<6.00	NA	
Aliphatic >C12-C16	mg/Kg	NS		370	79.6	NA	<1160	NA	12.0	NA	11.5	NA	19.6	NA	NA	15.7	NA	<60.0	NA	
Aliphatic >C16-C35	mg/Kg	NS		7100	256	NA	1750	NA	73.5	NA	228	NA	343	NA	NA	117	NA	237	NA	
Aromatic >C8-C10	mg/Kg	NS		65	<25.2	NA	<25.7	NA	<26.9	NA	<25.8	NA	<27.9	NA	NA	<28.8	NA	<32.4	NA	
Aromatic >C10-C12	mg/Kg	NS		120	<5.95	NA	40.6	NA	<5.84	NA	<5.87	NA	<5.99	NA	NA	<5.95	NA	<6.00	NA	
Aromatic >C12-C16	mg/Kg	NS		180	10.5	NA	185	NA	<5.84	NA	<5.87	NA	<5.99	NA	NA	<5.95	NA	<6.00	NA	
Aromatic >C16-C21	mg/Kg	NS		150	10.7	NA	148	NA	<5.84	NA	<5.87	NA	<5.99	NA	NA	<5.95	NA	6.37	NA	
Aromatic >C21-C35	mg/Kg	NS		180	63.4	NA	778	NA	28.1	NA	64.3	NA	204	NA	NA	13.9	NA	33.7	NA	
PAHs																				
2-Methylnaphthalene	mg/Kg	NS		1.7	NA	NA	NA	NA	NA	NA	NA	<0.0323	NA	NA	NA	NA	NA	NA	NA	
Acenaphthene	mg/Kg	NS		220	NA	NA	NA	NA	NA	NA	NA	<0.0323	NA	NA	NA	NA	NA	NA	NA	
Acenaphthylene	mg/Kg	NS		88	NA	NA	NA	NA	NA	NA	NA	<0.0323	NA	NA	NA	NA	NA	NA	NA	
Anthracene	mg/Kg	NS		120	NA	NA	NA	NA	NA	NA	NA	<0.0323	NA	NA	NA	NA	NA	NA	NA	
Benzo(a)anthracene	mg/Kg	NS		0.62	NA	NA	NA	NA	NA	NA	NA	<0.0323	NA	NA	NA	NA	NA	NA	NA	
Benzo(a)pyrene	mg/Kg	NS		0.33	NA	NA	NA	NA	NA	NA	NA	<0.0323	NA	NA	NA	NA	NA	NA	NA	
Benzo(b)fluoranthene	mg/Kg	NS		0.62	NA	NA	NA	NA	NA	NA	NA	<0.0323	NA	NA	NA	NA	NA	NA	NA	
Benzo(k)fluoranthene	mg/Kg	NS		6.2	NA	NA	NA	NA	NA	NA	NA	<0.0323	NA	NA	NA	NA	NA	NA	NA	
Chrysene	mg/Kg	NS		62	NA	NA	NA	NA	NA	NA	NA	<0.0323	NA	NA	NA	NA	NA	NA	NA	
Dibenz(a,h)anthracene	mg/Kg	NS		0.33	NA	NA	NA	NA	NA	NA	NA	<0.0323	NA	NA	NA	NA	NA	NA	NA	
Fluoranthene	mg/Kg	NS		220	NA	NA	NA	NA	NA	NA	NA	<0.0323	NA	NA	NA	NA	NA	NA	NA	
Fluorene	mg/Kg	NS		230	NA	NA	NA	NA	NA	NA	NA	<0.0323	NA	NA	NA	NA	NA	NA	NA	
Indeno(1,2,3-cd)pyrene	mg/Kg	NS		0.62	NA	NA	NA	NA	NA	NA	NA	<0.0323	NA	NA	NA	NA	NA	NA	NA	
Naphthalene	mg/Kg	NS		1.5	NA	NA	NA	NA	NA	NA	NA	<0.0323	NA	NA	NA	NA	NA	NA	NA	
Phenanthrene	mg/Kg	NS		660	NA	NA	NA	NA	NA	NA	NA	<0.0323	NA	NA	NA	NA	NA	NA	NA	
Pyrene	mg/Kg	NS		230	NA	NA	NA	NA	NA	NA	NA	<0.0323	NA	NA	NA	NA	NA	NA	NA	

Notes
(a) LDNR Statewide 29-B soil standards for uplands.
(b) LDNR Statewide 29-B soil standards for wetlands.
(c) LDEQ limiting screening RECAP standard for soil.
NA = Not analyzed.
< = Not detected at or above the reporting limit shown.
Highlighted values exceed the matching standard.
29-B Salt Standards have only been applied to samples between 0-2 feet.
Samples in the SW tract are compared to 29-B wetland salt standards, all other tracts are compared to 29-B upland salt standards.

Table 9
Defendant's Soil Analytical Results Summary
Hero Lands Company, L.L.C. v Chevron U.S.A., Inc., et al.
Stella Field, Plaquemines Parish, Louisiana

Tract ID					SW		SW				SW				SW		SW						
Sample ID					SB6R3		SB-7R				SB-7S				SB-8R		SB-11R						
Sample Date					3/19/2020		7/28/2020				7/17/2020				7/28/2020		1/6/2020						
Sample Interval					4-6'		0-2'		2-4'		0-2'		2-4'		0-2'		0-1'		1-2'		2-3'		7/8/2020
Sampler					HET	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ICON
Parameters	Units	29-B Limit ^a	29-B Limit ^b	RECAP LSS ^c																			
Salts																							
% Moisture	%	NS	NS	NS	NA	NA	NA	49.8	NA	44.8	33.7	NA	NA	NA	NA	43.6	39.7	NA	27.6	NA	28.7	NA	31.3
Cation Exchange Capacity (CEC)	meq/100g	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	64.1	NA	29.9	NA	37.6	NA	NA
Electrical Conductivity	mmhos/cm	4	8	NS	NA	NA	NA	1.35	NA	1.24	NA	NA	NA	NA	NA	1.09	3.81	NA	7.42	NA	9.15	NA	NA
pH	S.U.	6 - 9	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.15	NA	7.81	NA	7.97	NA	NA
Exchangeable Sodium Percentage	%	15	25	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10.1	NA	23.4	NA	23.8	NA	NA
Sodium Adsorption Ratio	Calc	12	14	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	15.4	NA	23.9	NA	31.2	NA	NA
Soluble Calcium	meq/L	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.23	NA	6.4	NA	6.55	NA	NA
Soluble Magnesium	meq/L	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.58	NA	4.12	NA	4.15	NA	NA
Soluble Sodium	meq/L	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	26.2	NA	54.9	NA	72.2	NA	NA
Metals																							
		29-B Limit^a		RECAP LSS^c																			
Arsenic	mg/Kg-wet	10	12	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	mg/Kg-wet	NS	550	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
True Total Barium	mg/Kg	20000	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Barium	mg/L	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/Kg-wet	500	100	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12.50
SPLP Lead	mg/L	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hydrocarbons																							
Oil & Grease	%	1	NS	NS	NA	NA	0.19	0.19	NA	NA	0.171	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH-DRO (>C10-C28)	mg/Kg	NS	65	NS	NA	2660	NA	128	NA	3070	NA	965	NA	456	NA	1970	NA	NA	NA	NA	NA	NA	NA
TPH-ORO (>C28-C35)	mg/Kg	NS	180	NS	NA	1410	NA	391	NA	3120	NA	690	NA	561	NA	1790	NA	NA	NA	NA	NA	NA	NA
Aliphatic C6-C8	mg/Kg	NS	1200	NS	<75.0	NA	NA	NA	NA	NA	<26.5	NA	<28.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aliphatic >C8-C10	mg/Kg	NS	120	NS	<75.0	NA	NA	NA	NA	NA	<26.5	NA	<28.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aliphatic >C10-C12	mg/Kg	NS	230	NS	<75.0	NA	<3.00	NA	<30.0	NA	<5.89	NA	<5.94	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aliphatic >C12-C16	mg/Kg	NS	370	NS	318	NA	<3.00	NA	<300	NA	9.72	NA	<5.94	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aliphatic >C16-C35	mg/Kg	NS	7100	NS	2280	NA	67.9	NA	1680	NA	60.0	NA	38.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aromatic >C8-C10	mg/Kg	NS	65	NS	<10.0	NA	NA	NA	NA	NA	<26.5	NA	<28.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aromatic >C10-C12	mg/Kg	NS	120	NS	<10.0	NA	<3.00	NA	<3.00	NA	<5.89	NA	<5.94	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aromatic >C12-C16	mg/Kg	NS	180	NS	27.1	NA	<3.00	NA	14.3	NA	<5.89	NA	<5.94	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aromatic >C16-C21	mg/Kg	NS	150	NS	135	NA	<3.00	NA	56.4	NA	<5.89	NA	<5.94	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aromatic >C21-C35	mg/Kg	NS	180	NS	200	NA	22.6	NA	667	NA	17.9	NA	42.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PAHs																							
2-Methylnaphthalene	mg/Kg	NS	1.7	NS	0.425	NA	<0.033	NA	<0.032	NA	NA	NA	NA	NA	<0.033	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/Kg	NS	220	NS	<0.330	NA	<0.033	NA	<0.032	NA	NA	NA	NA	NA	<0.033	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	mg/Kg	NS	88	NS	<0.330	NA	<0.033	NA	<0.032	NA	NA	NA	NA	NA	<0.033	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/Kg	NS	120	NS	<0.330	NA	<0.033	NA	<0.032	NA	NA	NA	NA	NA	<0.033	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/Kg	NS	0.62	NS	<0.330	NA	<0.033	NA	<0.032	NA	NA	NA	NA	NA	<0.033	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	mg/Kg	NS	0.33	NS	<0.330	NA	<0.033	NA	<0.032	NA	NA	NA	NA	NA	<0.033	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	mg/Kg	NS	0.62	NS	<0.330	NA	<0.033	NA	<0.032	NA	NA	NA	NA	NA	<0.033	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	mg/Kg	NS	6.2	NS	<0.330	NA	<0.033	NA	<0.032	NA	NA	NA	NA	NA	<0.033	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/Kg	NS	62	NS	<0.330	NA	<0.033	NA	<0.032	NA	NA	NA	NA	NA	<0.033	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	mg/Kg	NS	0.33	NS	<0.330	NA	<0.033	NA	<0.032	NA	NA	NA	NA	NA	<0.033	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/Kg	NS	220	NS	<0.330	NA	<0.033	NA	<0.032	NA	NA	NA	NA	NA	<0.033	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	mg/Kg	NS	230	NS	<0.330	NA	<0.033	NA	<0.032	NA	NA	NA	NA	NA	<0.033	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	mg/Kg	NS	0.62	NS	<0.330	NA	<0.033	NA	<0.032	NA	NA	NA	NA	NA	<0.033	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/Kg	NS	1.5	NS	<0.330	NA	<0.033	NA	<0.032	NA	NA	NA	NA	NA	<0.033	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/Kg	NS	660	NS	<0.330	NA	<0.033	NA	<0.032	NA	NA	NA	NA	NA	<0.033	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/Kg	NS	230	NS	<0.033	NA	<0.033	NA	<0.032	NA	NA	NA	NA	NA	<0.033	NA	NA	NA	NA	NA	NA	NA	NA

Notes
(a) LDNR Statewide 29-B soil standards for uplands.
(b) LDNR Statewide 29-B soil standards for wetlands.
(c) LDEQ limiting screening RECAP standard for soil.
NA = Not analyzed.
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Table 9
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Hero Lands Company, L.L.C. v Chevron U.S.A., Inc., et al.
Stella Field, Plaquemines Parish, Louisiana

Tract ID					SW				SW				SW		SW							
Sample ID					SB-13R				SB-14R				SB-14R2		SB-15R							
Sample Date					1/15/2020		7/8/2020		1/22/2020		1/22/2020		3/19/2020		1/6/2020							
Sample Interval					0-2'		0-2'		2-4'		0-2'		2-4'		4-6'		0-1'		1-2'		2-3'	
Sampler					ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	HET	ICON	ERM	ICON	ERM	ICON	ERM	ICON
Parameters	Units	29-B Limit ^a	29-B Limit ^b	RECAP LSS ^c																		
Salts																						
% Moisture	%	NS	NS	NS	NA	17.9	NA	27.5	NA	NA	NA	18.6	NA	18.1	45.1	NA	15.7	NA	17.9	NA	22.8	NA
Cation Exchange Capacity (CEC)	meq/100g	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	35.7	NA	NA	42.4	NA	31.6	NA	45.6	NA
Electrical Conductivity	mmhos/cm	4	8	NS	NA	NA	NA	NA	NA	NA	NA	3.31	NA	NA	NA	NA	0.87	NA	3.25	NA	3.32	NA
pH	S.U.	6 - 9	NS	NS	NA	NA	NA	NA	NA	NA	NA	7.97	NA	NA	NA	NA	5.65	NA	7.95	NA	8.2	NA
Exchangeable Sodium Percentage	%	15	25	NS	NA	NA	NA	NA	NA	NA	NA	17.6	NA	NA	NA	NA	3.35	NA	22.7	NA	25.9	NA
Sodium Adsorption Ratio	Calc	12	14	NS	NA	NA	NA	NA	NA	NA	NA	21.6	NA	NA	NA	NA	8.21	NA	19.3	NA	24	NA
Soluble Calcium	meq/L	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	1.89	NA	NA	NA	NA	0.94	NA	2.3	NA	1.78	NA
Soluble Magnesium	meq/L	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	0.98	NA	NA	NA	NA	0.49	NA	1.19	NA	0.81	NA
Soluble Sodium	meq/L	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	25.9	NA	NA	NA	NA	6.96	NA	25.5	NA	27.4	NA
Metals			29-B Limit ^a	RECAP LSS ^c																		
Arsenic	mg/Kg-wet	10	12		5.20	7.20	NA	NA	9.67	NA	NA	10.40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	mg/Kg-wet	NS	550		288	961	NA	3951	194	NA	NA	3230	2670	NA	5143	NA	NA	NA	NA	NA	NA	NA
True Total Barium	mg/Kg	20000	NS		667	2110	NA	NA	716	NA	NA	12300	8250	NA	19800	NA	NA	NA	NA	NA	NA	NA
SPLP Barium	mg/L	NS	NS		NA	NA	0.70	NA	NA	NA	NA	0.72	NA	0.64	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/Kg-wet	500	100		19.50	20.94	NA	45.24	12.40	NA	NA	36.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Lead	mg/L	NS	NS		NA	NA	0.027	NA	NA	NA	NA	NA	NA	0.02	NA	NA	NA	NA	NA	NA	NA	NA
Hydrocarbons																						
Oil & Grease	%	1	NS		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.091	0.16	NA	NA	NA	NA	NA
TPH-DRO (>C10-C28)	mg/Kg	NS	65		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	27.6	NA	NA	NA	NA	NA	NA
TPH-ORO (>C28-C35)	mg/Kg	NS	180		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	30.2	NA	NA	NA	NA	NA	NA
Aliphatic C6-C8	mg/Kg	NS	1200		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<15.0	NA	NA	NA	NA	NA	NA
Aliphatic >C8-C10	mg/Kg	NS	120		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<15.0	NA	NA	NA	NA	NA	NA
Aliphatic >C10-C12	mg/Kg	NS	230		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<15.0	NA	NA	NA	NA	NA	NA
Aliphatic >C12-C16	mg/Kg	NS	370		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<10.0	NA	NA	NA	NA	NA	NA
Aliphatic >C16-C35	mg/Kg	NS	7100		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12.9	NA	NA	NA	NA	NA	NA
Aromatic >C8-C10	mg/Kg	NS	65		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<10.0	NA	NA	NA	NA	NA	NA
Aromatic >C10-C12	mg/Kg	NS	120		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<10.0	NA	NA	NA	NA	NA	NA
Aromatic >C12-C16	mg/Kg	NS	180		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<15.0	NA	NA	NA	NA	NA	NA
Aromatic >C16-C21	mg/Kg	NS	150		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<15.0	NA	NA	NA	NA	NA	NA
Aromatic >C21-C35	mg/Kg	NS	180		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	20.7	NA	NA	NA	NA	NA	NA
PAHs																						
2-Methylnaphthalene	mg/Kg	NS	1.7		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/Kg	NS	220		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	mg/Kg	NS	88		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/Kg	NS	120		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/Kg	NS	0.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	mg/Kg	NS	0.33		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	mg/Kg	NS	0.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	mg/Kg	NS	6.2		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/Kg	NS	62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	mg/Kg	NS	0.33		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/Kg	NS	220		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	mg/Kg	NS	230		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	NS	0.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/Kg	NS	1.5		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/Kg	NS	660		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/Kg	NS	230		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes
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Stella Field, Plaquemines Parish, Louisiana

Tract ID					SW				NW		NW		NW		NE				Off Site					
Sample ID					SB-16				SB - 101		SB - 102		SB - 103		SB-104				SB-105					
Sample Date					3/19/2020				12/19/2019		12/19/2019		12/19/2019		12/17/2019				12/17/2019					
Sample Interval					0-2'		4-6'		13-15'		4-6'		4-6'		4-6'		4-6'		8-10'		2-4'		4-6'	
Sampler					HET	ICON	HET	ICON	HET	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON
Parameters	Units	29-B Limit ^a	29-B Limit ^b	RECAP LSS ^c																				
Salts																								
% Moisture	%	NS	NS	NS	28.3	NA	25.7	NA	20.9	NA	NA	23.0	NA	33.7	NA	25.7	26.2	NA	52.6	NA	15.9	NA	34.4	NA
Cation Exchange Capacity (CEC)	meq/100g	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Electrical Conductivity	mmhos/cm	4	8	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	6 - 9	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Exchangeable Sodium Percentage	%	15	25	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium Adsorption Ratio	Calc	12	14	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soluble Calcium	meq/L	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soluble Magnesium	meq/L	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soluble Sodium	meq/L	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals																								
		29-B Limit^a	RECAP LSS^c																					
Arsenic	mg/Kg-wet	10	12	NS	NA	NA	NA	NA	NA	2.70	4.77	2.60	6.70	4.97	15.60	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	mg/Kg-wet	NS	550	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
True Total Barium	mg/Kg	20000	NS	NS	201	NA	141	NA	56.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Barium	mg/L	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/Kg-wet	500	100	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Lead	mg/L	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hydrocarbons																								
Oil & Grease	%	1	NS	NS	<0.070	NA	<0.067	NA	<0.063	NA	NA	NA	NA	NA	NA	NA	0.571	NA	<0.105	NA	0.828	NA	<0.076	NA
TPH-DRO (>C10-C28)	mg/Kg	NS	65	NS	NA	<10.0	NA	<10.0	NA	<10.0	NA	NA	NA	NA	NA	NA	NA	1040	NA	13.9	NA	450	NA	397
TPH-ORO (>C28-C35)	mg/Kg	NS	180	NS	NA	<10.0	NA	<10.0	NA	10.3	NA	NA	NA	NA	NA	NA	NA	1290	NA	19.9	NA	473	NA	428
Aliphatic C6-C8	mg/Kg	NS	1200	NS	<15.0	NA	<15.0	NA	<15.0	NA	NA	NA	NA	NA	NA	NA	<37.4	NA	<35.9	NA	<30.0	NA	<28.7	NA
Aliphatic >C8-C10	mg/Kg	NS	120	NS	<15.0	NA	<15.0	NA	<15.0	NA	NA	NA	NA	NA	NA	NA	<37.4	NA	<35.9	NA	<30.0	NA	<28.7	NA
Aliphatic >C10-C12	mg/Kg	NS	230	NS	<15.0	NA	<15.0	NA	<15.0	NA	NA	NA	NA	NA	NA	NA	<5.97	NA	<5.98	NA	<6.00	NA	<6.00	NA
Aliphatic >C12-C16	mg/Kg	NS	370	NS	<10.0	NA	<10.0	NA	<10.0	NA	NA	NA	NA	NA	NA	NA	70.4	NA	<5.98	NA	34.2	NA	<6.00	NA
Aliphatic >C16-C35	mg/Kg	NS	7100	NS	<10.0	NA	<10.1	NA	<10.0	NA	NA	NA	NA	NA	NA	NA	756	NA	<5.98	NA	156	NA	<6.00	NA
Aromatic >C8-C10	mg/Kg	NS	65	NS	<10.0	NA	<10.0	NA	<10.0	NA	NA	NA	NA	NA	NA	NA	<37.4	NA	<35.9	NA	<25.0	NA	<28.7	NA
Aromatic >C10-C12	mg/Kg	NS	120	NS	<10.0	NA	<10.0	NA	<10.0	NA	NA	NA	NA	NA	NA	NA	<5.97	NA	<5.98	NA	<6.00	NA	<6.00	NA
Aromatic >C12-C16	mg/Kg	NS	180	NS	<15.0	NA	<15.0	NA	<15.0	NA	NA	NA	NA	NA	NA	NA	7.41	NA	<5.98	NA	<6.00	NA	<6.00	NA
Aromatic >C16-C21	mg/Kg	NS	150	NS	<15.0	NA	<15.0	NA	<15.0	NA	NA	NA	NA	NA	NA	NA	12	NA	<5.98	NA	<6.00	NA	<6.00	NA
Aromatic >C21-C35	mg/Kg	NS	180	NS	<15.0	NA	<15.0	NA	<15.0	NA	NA	NA	NA	NA	NA	NA	163	NA	<5.98	NA	44	NA	<6.00	NA
PAHs																								
2-Methylnaphthalene	mg/Kg	NS	1.7	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/Kg	NS	220	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	mg/Kg	NS	88	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/Kg	NS	120	NS	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	NS	0.62	NS	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	NS	0.33	NS	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	NS	0.62	NS	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	NS	6.2	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/Kg	NS	62	NS	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	NS	0.33	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/Kg	NS	220	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	mg/Kg	NS	230	NS	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	NS	0.62	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/Kg	NS	1.5	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/Kg	NS	660	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/Kg	NS	230	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes
(a) LDNR Statewide 29-B soil standards for uplands.
(b) LDNR Statewide 29-B soil standards for wetlands.
(c) LDEQ limiting screening RECAP standard for soil.
NA = Not analyzed.
< = Not detected at or above the reporting limit shown.
Highlighted values exceed the matching standard.
29-B Salt Standards have only been applied to samples between 0-2 feet.
Samples in the SW tract are compared to 29-B wetland salt standards, all other tracts are compared to 29-B upland salt standards.

Table 9
Defendant's Soil Analytical Results Summary
Hero Lands Company, L.L.C. v Chevron U.S.A., Inc., et al.
Stella Field, Plaquemines Parish, Louisiana

Tract ID					Off Site									
Sample ID					SB - 106									
Sample Date					12/17/2019									
Sample Interval					0-1'		1-2'		2-3'		2-4'		4-6'	
Sampler					ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON
Parameters	Units	29-B Limit ^a	29-B Limit ^b	RECAP LSS ^c										
Salts														
% Moisture	%	NS	NS	NS	13.9	13.2	16.2	15.1	18.1	17.2	20.6	NA	26.8	NA
Cation Exchange Capacity (CEC)	meq/100g	NS	NS	NS	27.8	26.6	20.8	19.0	28	41.1	NA	NA	NA	NA
Electrical Conductivity	mmhos/cm	4	8	NS	4.99	4.52	7.28	8.03	9.75	9.77	NA	NA	NA	NA
pH	S.U.	6 - 9	NS	NS	8.43	7.82	8.35	8.58	8.99	8.15	NA	NA	NA	NA
Exchangeable Sodium Percentage	%	15	25	NS	11.3	8.05	34.9	24.2	67.5	33.2	NA	NA	NA	NA
Sodium Adsorption Ratio	Calc	12	14	NS	9.5	7.86	28.7	21.1	68.2	71.8	NA	NA	NA	NA
Soluble Calcium	meq/L	NS	NS	NS	15	13.8	6.39	12.0	2.39	2.72	NA	NA	NA	NA
Soluble Magnesium	meq/L	NS	NS	NS	3.76	4.25	2.28	4.01	1.08	1.25	NA	NA	NA	NA
Soluble Sodium	meq/L	NS	NS	NS	29.1	23.6	59.7	59.6	89.9	101	NA	NA	NA	NA
Metals														
		29-B Limit ^a		RECAP LSS ^c										
Arsenic	mg/Kg-wet	10	12	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	mg/Kg-wet	NS	550	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
True Total Barium	mg/Kg	20000	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Barium	mg/L	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/Kg-wet	500	100	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Lead	mg/L	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hydrocarbons														
Oil & Grease	%	1	NS	NS	NA	NA	NA	NA	NA	NA	0.581	NA	<0.068	NA
TPH-DRO (>C10-C28)	mg/Kg	NS	65	NS	NA	NA	NA	NA	NA	NA	NA	2360	NA	29.5
TPH-ORO (>C28-C35)	mg/Kg	NS	180	NS	NA	NA	NA	NA	NA	NA	NA	1090	NA	24.6
Aliphatic C6-C8	mg/Kg	NS	1200	NS	NA	NA	NA	NA	NA	NA	NA	<27.6	NA	<31.3
Aliphatic >C8-C10	mg/Kg	NS	120	NS	NA	NA	NA	NA	NA	NA	NA	47.9	NA	<31.3
Aliphatic >C10-C12	mg/Kg	NS	230	NS	NA	NA	NA	NA	NA	NA	NA	<296	NA	<5.98
Aliphatic >C12-C16	mg/Kg	NS	370	NS	NA	NA	NA	NA	NA	NA	NA	798	NA	<5.98
Aliphatic >C16-C35	mg/Kg	NS	7100	NS	NA	NA	NA	NA	NA	NA	NA	2280	NA	11.2
Aromatic >C8-C10	mg/Kg	NS	65	NS	NA	NA	NA	NA	NA	NA	NA	34.2	NA	<31.3
Aromatic >C10-C12	mg/Kg	NS	120	NS	NA	NA	NA	NA	NA	NA	NA	18.8	NA	<5.98
Aromatic >C12-C16	mg/Kg	NS	180	NS	NA	NA	NA	NA	NA	NA	NA	72.1	NA	<5.98
Aromatic >C16-C21	mg/Kg	NS	150	NS	NA	NA	NA	NA	NA	NA	NA	57.8	NA	<5.98
Aromatic >C21-C35	mg/Kg	NS	180	NS	NA	NA	NA	NA	NA	NA	NA	454	NA	<5.98
PAHs														
2-Methylnaphthalene	mg/Kg	NS	1.7	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/Kg	NS	220	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	mg/Kg	NS	88	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/Kg	NS	120	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/Kg	NS	0.62	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	mg/Kg	NS	0.33	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	mg/Kg	NS	0.62	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	mg/Kg	NS	6.2	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/Kg	NS	62	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	mg/Kg	NS	0.33	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/Kg	NS	220	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	mg/Kg	NS	230	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	mg/Kg	NS	0.62	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/Kg	NS	1.5	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/Kg	NS	660	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/Kg	NS	230	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes

(a) LDNR Statewide 29-B soil standards for uplands.

(b) LDNR Statewide 29-B soil standards for wetlands.

(c) LDEQ limiting screening RECAP standard for soil.

NA = Not analyzed.

< = Not detected at or above the reporting limit shown.

Highlighted values exceed the matching standard.

29-B Salt Standards have only been applied to samples between 0-2 feet.

Samples in the SW tract are compared to 29-B wetland salt standards, all

other tracts are compared to 29-B upland salt standards.

Table 9
Defendant's Soil Analytical Results Summary
Hero Lands Company, L.L.C. v Chevron U.S.A., Inc., et al.
Stella Field, Plaquemines Parish, Louisiana

Tract ID					SE										SE					
Sample ID					SB-113										SB-114					
Sample Date					12/18/2019										1/9/2020					
Sample Interval					0-1'		1-2'		0-2'		2-3'		4-6'		0-2'		2-4'		4-6'	
Sampler					ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON
Parameters	Units	29-B Limit ^a	29-B Limit ^b	RECAP LSS ^c																
Salts																				
% Moisture	%	NS	NS	NS	6.5	NA	10.1	NA	23	NA	19	NA	32.6	NA	20.3	NA	21.3	NA	31.8	NA
Cation Exchange Capacity (CEC)	meq/100g	NS	NS	NS	13.4	NA	3.4	NA	NA	NA	37.9	NA	NA	NA	NA	NA	NA	NA	NA	NA
Electrical Conductivity	mmhos/cm	4	8	NS	23.2	NA	11.8	NA	NA	NA	26	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	6 - 9	NS	NS	7.84	NA	8.44	NA	NA	NA	8.16	NA	NA	NA	NA	NA	NA	NA	NA	NA
Exchangeable Sodium Percentage	%	15	25	NS	65.6	NA	33.7	NA	NA	NA	47.7	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium Adsorption Ratio	Calc	12	14	NS	36.7	NA	44.9	NA	NA	NA	95.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soluble Calcium	meq/L	NS	NS	NS	41.6	NA	8.52	NA	NA	NA	8.97	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soluble Magnesium	meq/L	NS	NS	NS	8.36	NA	2.83	NA	NA	NA	4.35	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soluble Sodium	meq/L	NS	NS	NS	183	NA	107	NA	NA	NA	247	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals			29-B Limit ^a	RECAP LSS ^c																
Arsenic	mg/Kg-wet		10	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	mg/Kg-wet		NS	550	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
True Total Barium	mg/Kg		20000	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Barium	mg/L		NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/Kg-wet		500	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Lead	mg/L		NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hydrocarbons																				
Oil & Grease	%		1	NS	NA	NA	NA	NA	<0.064	NA	NA	NA	<0.074	NA	0.229	NA	0.608	1.78	0.481	NA
TPH-DRO (>C10-C28)	mg/Kg		NS	65	NA	NA	NA	NA	NA	35.3	NA	NA	NA	<10.0	NA	5150	NA	1210	NA	<50
TPH-ORO (>C28-C35)	mg/Kg		NS	180	NA	NA	NA	NA	NA	27.9	NA	NA	NA	<10.0	NA	4770	NA	621	NA	<50
Aliphatic C6-C8	mg/Kg		NS	1200	NA	NA	NA	NA	<36.1	NA	NA	NA	<36.9	NA	<25.1	NA	<28.3	NA	<31.8	NA
Aliphatic >C8-C10	mg/Kg		NS	120	NA	NA	NA	NA	<36.1	NA	NA	NA	<36.9	NA	<25.1	NA	<28.3	NA	<31.8	NA
Aliphatic >C10-C12	mg/Kg		NS	230	NA	NA	NA	NA	<5.91	NA	NA	NA	<5.96	NA	<11.9	NA	<6.00	NA	<5.96	NA
Aliphatic >C12-C16	mg/Kg		NS	370	NA	NA	NA	NA	<5.91	NA	NA	NA	<5.96	NA	58.2	NA	12.4	NA	<5.96	NA
Aliphatic >C16-C35	mg/Kg		NS	7100	NA	NA	NA	NA	<5.91	NA	NA	NA	<5.96	NA	597	NA	45.0	NA	<5.96	NA
Aromatic >C8-C10	mg/Kg		NS	65	NA	NA	NA	NA	<36.1	NA	NA	NA	<36.9	NA	<25.1	NA	<28.3	NA	<3.18	NA
Aromatic >C10-C12	mg/Kg		NS	120	NA	NA	NA	NA	<5.91	NA	NA	NA	<5.96	NA	<5.96	NA	<6.00	NA	<5.96	NA
Aromatic >C12-C16	mg/Kg		NS	180	NA	NA	NA	NA	<5.91	NA	NA	NA	<5.96	NA	<5.96	NA	<6.00	NA	<5.96	NA
Aromatic >C16-C21	mg/Kg		NS	150	NA	NA	NA	NA	<5.91	NA	NA	NA	<5.96	NA	7.34	NA	<6.00	NA	<5.96	NA
Aromatic >C21-C35	mg/Kg		NS	180	NA	NA	NA	NA	<5.91	NA	NA	NA	<5.96	NA	179	NA	18.1	NA	<5.96	NA
PAHs																				
2-Methylnaphthalene	mg/Kg		NS	1.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/Kg		NS	220	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	mg/Kg		NS	88	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/Kg		NS	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/Kg		NS	0.62	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	mg/Kg		NS	0.33	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	mg/Kg		NS	0.62	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	mg/Kg		NS	6.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/Kg		NS	62	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	mg/Kg		NS	0.33	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/Kg		NS	220	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	mg/Kg		NS	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	mg/Kg		NS	0.62	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/Kg		NS	1.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/Kg		NS	660	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/Kg		NS	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes
(a) LDNR Statewide 29-B soil standards for uplands.
(b) LDNR Statewide 29-B soil standards for wetlands.
(c) LDEQ limiting screening RECAP standard for soil.
NA = Not analyzed.
< = Not detected at or above the reporting limit shown.
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Table 9
Defendant's Soil Analytical Results Summary
Hero Lands Company, L.L.C. v Chevron U.S.A., Inc., et al.
Stella Field, Plaquemines Parish, Louisiana

Tract ID					SE				SW				SW				SW		SW	
Sample ID					SB-115				SB-116				SB-117				SB-118		SB - 119	
Sample Date					1/9/2020				1/9/2020		7/8/2020		1/9/2020		7/8/2020		1/9/2020		1/15/2020	
Sample Interval					0-2'		4-6'		0-2'		0-2'		0-2'		0-2'		0-2'		0-2'	
Sampler					ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON
Parameters	Units	29-B Limit ^a	29-B Limit ^b	RECAP LSS ^c																
Salts																				
% Moisture	%	NS	NS	NS	37.0	NA	40.5	NA	NA	23	NA	22.8	NA	25.9	NA	25.3	NA	33.4	NA	31.6
Cation Exchange Capacity (CEC)	meq/100g	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Electrical Conductivity	mmhos/cm	4	8	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	6 - 9	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Exchangeable Sodium Percentage	%	15	25	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium Adsorption Ratio	Calc	12	14	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soluble Calcium	meq/L	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soluble Magnesium	meq/L	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soluble Sodium	meq/L	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals																				
		29-B Limit ^a	RECAP LSS ^c																	
Arsenic	mg/Kg-wet	10	12	NA	NA	NA	NA	5.45	6.18	NA	NA	8.97	8.15	NA	NA	3.59	5.37	5.84	6.91	
Barium	mg/Kg-wet	NS	550	NA	NA	NA	NA	3620	3835	NA	3165	4060	2964	NA	4616	79	228	591	677	
True Total Barium	mg/Kg	20000	NS	NA	NA	NA	NA	28800	NA	NA	NA	112000	NA	NA	NA	298	NA	819	1670	
SPLP Barium	mg/L	NS	NS	NA	NA	NA	NA	NA	10.9	NA	NA	NA	NA	1.86	NA	NA	NA	NA	NA	
Lead	mg/Kg-wet	500	100	NA	NA	NA	NA	44.90	52.44	NA	25.09	106.00	24.60	NA	39.44	11.80	13.25	20.00	39.74	
SPLP Lead	mg/L	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.043	NA	NA	NA	NA	NA	
Hydrocarbons																				
Oil & Grease																				
	%	1	NS	0.371	NA	<0.084	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
TPH-DRO (>C10-C28)	mg/Kg	NS	65	NA	249	NA	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
TPH-ORO (>C28-C35)	mg/Kg	NS	180	NA	299	NA	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aliphatic C6-C8	mg/Kg	NS	1200	<35.8	NA	<28.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aliphatic >C8-C10	mg/Kg	NS	120	<35.8	NA	<28.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aliphatic >C10-C12	mg/Kg	NS	230	<6.00	NA	<5.96	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aliphatic >C12-C16	mg/Kg	NS	370	9.66	NA	<5.96	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aliphatic >C16-C35	mg/Kg	NS	7100	195	NA	<5.96	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aromatic >C8-C10	mg/Kg	NS	65	<35.8	NA	<28.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aromatic >C10-C12	mg/Kg	NS	120	<6.00	NA	<5.96	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aromatic >C12-C16	mg/Kg	NS	180	<6.00	NA	<5.96	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aromatic >C16-C21	mg/Kg	NS	150	<6.00	NA	<5.96	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aromatic >C21-C35	mg/Kg	NS	180	75.1	NA	<5.96	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
PAHs																				
2-Methylnaphthalene	mg/Kg	NS	1.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Acenaphthene	mg/Kg	NS	220	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Acenaphthylene	mg/Kg	NS	88	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Anthracene	mg/Kg	NS	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Benzo(a)anthracene	mg/Kg	NS	0.62	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Benzo(a)pyrene	mg/Kg	NS	0.33	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Benzo(b)fluoranthene	mg/Kg	NS	0.62	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Benzo(k)fluoranthene	mg/Kg	NS	6.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Chrysene	mg/Kg	NS	62	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Dibenz(a,h)anthracene	mg/Kg	NS	0.33	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Fluoranthene	mg/Kg	NS	220	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Fluorene	mg/Kg	NS	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Indeno(1,2,3-cd)pyrene	mg/Kg	NS	0.62	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Naphthalene	mg/Kg	NS	1.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Phenanthrene	mg/Kg	NS	660	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Pyrene	mg/Kg	NS	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Notes
(a) LDNR Statewide 29-B soil standards for uplands.
(b) LDNR Statewide 29-B soil standards for wetlands.
(c) LDEQ limiting screening RECAP standard for soil.
NA = Not analyzed.
< = Not detected at or above the reporting limit shown.
Highlighted values exceed the matching standard.
29-B Salt Standards have only been applied to samples between 0-2 feet.
Samples in the SW tract are compared to 29-B wetland salt standards, all other tracts are compared to 29-B upland salt standards.

Table 9
Defendant's Soil Analytical Results Summary
Hero Lands Company, L.L.C. v Chevron U.S.A., Inc., et al.
Stella Field, Plaquemines Parish, Louisiana

Tract ID					SW								SW		SW							
Sample ID					SB - 120								SB-121		SB-122							
Sample Date					1/15/2020								1/15/2020		1/15/2020				1/22/2020			
Sample Interval					0-1'		1-2'		2-3'		2-4'		2-4'		0-1'		1-2'		2-3'		2-4'	
Sampler					ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON
Parameters	Units	29-B Limit ^a	29-B Limit ^b	RECAP LSS ^c																		
Salts																						
% Moisture	%	NS	NS	NS	16.8	17.1	20.8	20.6	24.3	24.4	24.1	NA	39.0	NA	27.3	NA	27.3	NA	28.7	NA	NA	NA
Cation Exchange Capacity (CEC)	meq/100g	NS	NS	NS	29.4	44.6	42.1	57.9	35.7	51.4	NA	NA	NA	NA	48.3	NA	57.2	NA	53.9	NA	NA	NA
Electrical Conductivity	mmhos/cm	4	8	NS	0.66	0.79	0.87	0.48	2.63	0.94	NA	NA	NA	NA	0.70	NA	1.81	NA	1.91	NA	NA	NA
pH	S.U.	6 - 9	NS	NS	7.15	7.51	7.63	7.61	8.59	8.49	NA	NA	NA	NA	6.59	NA	7.48	NA	7.61	NA	NA	NA
Exchangeable Sodium Percentage	%	15	25	NS	<0.10	1.84	3.84	5.34	22.6	25.8	NA	NA	NA	NA	6.68	NA	11.6	NA	16.2	NA	NA	NA
Sodium Adsorption Ratio	Calc	12	14	NS	1.24	4.62	6.72	4.46	16.8	7.76	NA	NA	NA	NA	6.29	NA	11.6	NA	12.2	NA	NA	NA
Soluble Calcium	meq/L	NS	NS	NS	4.33	2.54	1.82	0.69	2.48	0.93	NA	NA	NA	NA	1.02	NA	2.46	NA	2.04	NA	NA	NA
Soluble Magnesium	meq/L	NS	NS	NS	1.08	0.90	0.93	0.31	1.42	0.59	NA	NA	NA	NA	0.56	NA	1.33	NA	1.11	NA	NA	NA
Soluble Sodium	meq/L	NS	NS	NS	2.03	6.06	7.88	3.16	23.5	6.78	NA	NA	NA	NA	5.60	NA	16.0	NA	15.4	NA	NA	NA
Metals			29-B Limit ^a	RECAP LSS ^c																		
Arsenic	mg/Kg-wet	10	12	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	mg/Kg-wet	NS	550	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
True Total Barium	mg/Kg	20000	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Barium	mg/L	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/Kg-wet	500	100	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Lead	mg/L	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hydrocarbons																						
Oil & Grease	%	1	NS	NS	NA	NA	NA	NA	NA	NA	<0.066	NA	<0.082	NA	NA	NA	NA	NA	NA	NA	<0.079	NA
TPH-DRO (>C10-C28)	mg/Kg	NS	65	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH-ORO (>C28-C35)	mg/Kg	NS	180	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aliphatic C6-C8	mg/Kg	NS	1200	NS	NA	NA	NA	NA	NA	NA	<25.6	NA	<31.5	NA	NA	NA	NA	NA	NA	NA	<23.8	NA
Aliphatic >C8-C10	mg/Kg	NS	120	NS	NA	NA	NA	NA	NA	NA	<25.6	NA	<31.5	NA	NA	NA	NA	NA	NA	NA	<23.8	NA
Aliphatic >C10-C12	mg/Kg	NS	230	NS	NA	NA	NA	NA	NA	NA	<5.96	NA	<5.97	NA	NA	NA	NA	NA	NA	NA	<5.99	NA
Aliphatic >C12-C16	mg/Kg	NS	370	NS	NA	NA	NA	NA	NA	NA	<5.96	NA	<5.97	NA	NA	NA	NA	NA	NA	NA	<5.99	NA
Aliphatic >C16-C35	mg/Kg	NS	7100	NS	NA	NA	NA	NA	NA	NA	<5.96	NA	<5.97	NA	NA	NA	NA	NA	NA	NA	<5.99	NA
Aromatic >C8-C10	mg/Kg	NS	65	NS	NA	NA	NA	NA	NA	NA	<25.6	NA	<31.5	NA	NA	NA	NA	NA	NA	NA	<27.5	NA
Aromatic >C10-C12	mg/Kg	NS	120	NS	NA	NA	NA	NA	NA	NA	<5.96	NA	<5.97	NA	NA	NA	NA	NA	NA	NA	<5.99	NA
Aromatic >C12-C16	mg/Kg	NS	180	NS	NA	NA	NA	NA	NA	NA	<5.96	NA	<5.97	NA	NA	NA	NA	NA	NA	NA	<5.99	NA
Aromatic >C16-C21	mg/Kg	NS	150	NS	NA	NA	NA	NA	NA	NA	<5.96	NA	<5.97	NA	NA	NA	NA	NA	NA	NA	<5.99	NA
Aromatic >C21-C35	mg/Kg	NS	180	NS	NA	NA	NA	NA	NA	NA	<5.96	NA	<5.97	NA	NA	NA	NA	NA	NA	NA	<5.99	NA
PAHs																						
2-Methylnaphthalene	mg/Kg	NS	1.7	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/Kg	NS	220	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	mg/Kg	NS	88	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/Kg	NS	120	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/Kg	NS	0.62	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	mg/Kg	NS	0.33	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	mg/Kg	NS	0.62	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	mg/Kg	NS	6.2	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/Kg	NS	62	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	mg/Kg	NS	0.33	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/Kg	NS	220	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	mg/Kg	NS	230	NS	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	NS	0.62	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/Kg	NS	1.5	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/Kg	NS	660	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/Kg	NS	230	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes
(a) LDNR Statewide 29-B soil standards for uplands.
(b) LDNR Statewide 29-B soil standards for wetlands.
(c) LDEQ limiting screening RECAP standard for soil.
NA = Not analyzed.
< = Not detected at or above the reporting limit shown.
Highlighted values exceed the matching standard.
29-B Salt Standards have only been applied to samples between 0-2 feet.
Samples in the SW tract are compared to 29-B wetland salt standards, all other tracts are compared to 29-B upland salt standards.

Table 9
Defendant's Soil Analytical Results Summary
Hero Lands Company, L.L.C. v Chevron U.S.A., Inc., et al.
Stella Field, Plaquemines Parish, Louisiana

Tract ID					SW		SW									
Sample ID					SB-123		SB -124									
Sample Date					1/14/2020		1/13/2020									
Sample Interval					2-4'		0-1'		1-2'		0-2'		2-3'		2-4'	
Sampler					ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON
Parameters	Units	29-B Limit ^a	29-B Limit ^b	RECAP LSS ^c												
Salts																
% Moisture	%	NS	NS	NS	33.0	NA	27.3	39.0	25.9	25.8	36.1	NA	32.0	33.0	35.0	NA
Cation Exchange Capacity (CEC)	meq/100g	NS	NS	NS	NA	NA	54.0	54.2	54.7	74.1	NA	NA	58.8	71.8	NA	NA
Electrical Conductivity	mmhos/cm	4	8	NS	NA	NA	1.67	1.15	1.89	1.05	NA	NA	2.06	1.31	NA	NA
pH	S.U.	6 - 9	NS	NS	NA	NA	7.96	8.87	7.65	10.3	NA	NA	7.35	7.27	NA	NA
Exchangeable Sodium Percentage	%	15	25	NS	NA	NA	7.46	11.4	10.7	7.92	NA	NA	11.9	11.1	NA	NA
Sodium Adsorption Ratio	Calc	12	14	NS	NA	NA	9.87	8.63	11.3	9.11	NA	NA	12.6	10.6	NA	NA
Soluble Calcium	meq/L	NS	NS	NS	NA	NA	2.79	1.51	2.00	0.93	NA	NA	2.59	1.00	NA	NA
Soluble Magnesium	meq/L	NS	NS	NS	NA	NA	1.03	0.53	0.83	0.42	NA	NA	1.42	0.59	NA	NA
Soluble Sodium	meq/L	NS	NS	NS	NA	NA	13.6	8.72	13.4	7.49	NA	NA	17.8	9.44	NA	NA
Metals																
		29-B Limit ^a	RECAP LSS ^c													
Arsenic	mg/Kg-wet	10	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	mg/Kg-wet	NS	550	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
True Total Barium	mg/Kg	20000	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Barium	mg/L	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/Kg-wet	500	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Lead	mg/L	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hydrocarbons																
Oil & Grease	%	1	NS	<0.075	NA	NA	NA	NA	NA	NA	<0.078	NA	NA	NA	<0.077	NA
TPH-DRO (>C10-C28)	mg/Kg	NS	65	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH-ORO (>C28-C35)	mg/Kg	NS	180	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aliphatic C6-C8	mg/Kg	NS	1200	<32.3	NA	NA	NA	NA	NA	NA	<25.5	NA	NA	NA	<32.3	NA
Aliphatic >C8-C10	mg/Kg	NS	120	<32.3	NA	NA	NA	NA	NA	NA	<25.5	NA	NA	NA	<32.3	NA
Aliphatic >C10-C12	mg/Kg	NS	230	<5.98	NA	NA	NA	NA	NA	NA	<5.98	NA	NA	NA	<6.00	NA
Aliphatic >C12-C16	mg/Kg	NS	370	<5.98	NA	NA	NA	NA	NA	NA	<5.98	NA	NA	NA	<6.00	NA
Aliphatic >C16-C35	mg/Kg	NS	7100	<5.98	NA	NA	NA	NA	NA	NA	<5.98	NA	NA	NA	<6.00	NA
Aromatic >C8-C10	mg/Kg	NS	65	<32.3	NA	NA	NA	NA	NA	NA	<25.5	NA	NA	NA	<32.3	NA
Aromatic >C10-C12	mg/Kg	NS	120	<5.98	NA	NA	NA	NA	NA	NA	<5.98	NA	NA	NA	<6.00	NA
Aromatic >C12-C16	mg/Kg	NS	180	<5.98	NA	NA	NA	NA	NA	NA	<5.98	NA	NA	NA	<6.00	NA
Aromatic >C16-C21	mg/Kg	NS	150	<5.98	NA	NA	NA	NA	NA	NA	<5.98	NA	NA	NA	<6.00	NA
Aromatic >C21-C35	mg/Kg	NS	180	<5.98	NA	NA	NA	NA	NA	NA	<5.98	NA	NA	NA	<6.00	NA
PAHs																
2-Methylnaphthalene	mg/Kg	NS	1.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/Kg	NS	220	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	mg/Kg	NS	88	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/Kg	NS	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/Kg	NS	0.62	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	mg/Kg	NS	0.33	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	mg/Kg	NS	0.62	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	mg/Kg	NS	6.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/Kg	NS	62	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	mg/Kg	NS	0.33	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/Kg	NS	220	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	mg/Kg	NS	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	mg/Kg	NS	0.62	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/Kg	NS	1.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/Kg	NS	660	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/Kg	NS	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes
(a) LDNR Statewide 29-B soil standards for uplands.
(b) LDNR Statewide 29-B soil standards for wetlands.
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Table 9
Defendant's Soil Analytical Results Summary
Hero Lands Company, L.L.C. v Chevron U.S.A., Inc., et al.
Stella Field, Plaquemines Parish, Louisiana

Tract ID					SW						SW				SW				SW	
Sample ID					SB-125						SB-126				SB-127				SB-128	
Sample Date					1/14/2020						1/14/2020				1/14/2020				1/15/2020	
Sample Interval					0-2'		5-7'		8-10'		0-2'		2-4'		0-2'		2-4'		0-2'	
Sampler					ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON
Parameters	Units	29-B Limit ^a	29-B Limit ^b	RECAP LSS ^c																
Salts																				
% Moisture	%	NS	NS	NS	31.4	NA	51.6	NA	46.8	NA	33.9	NA	37.5	NA	30.5	NA	34.4	NA	32.9	NA
Cation Exchange Capacity (CEC)	meq/100g	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Electrical Conductivity	mmhos/cm	4	8	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	6 - 9	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Exchangeable Sodium Percentage	%	15	25	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium Adsorption Ratio	Calc	12	14	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soluble Calcium	meq/L	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soluble Magnesium	meq/L	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soluble Sodium	meq/L	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals																				
		29-B Limit ^a	RECAP LSS ^c																	
Arsenic	mg/Kg-wet	10	12	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	mg/Kg-wet	NS	550	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
True Total Barium	mg/Kg	20000	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Barium	mg/L	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/Kg-wet	500	100	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Lead	mg/L	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hydrocarbons																				
Oil & Grease	%	1	NS	NS	<0.073	NA	<0.103	0.24	<0.094	NA	<0.076	NA	<0.080	NA	<0.072	NA	<0.076	NA	0.181	NA
TPH-DRO (>C10-C28)	mg/Kg	NS	65	NS	NA	NA	NA	640	NA	46.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH-ORO (>C28-C35)	mg/Kg	NS	180	NS	NA	NA	NA	401	NA	53.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aliphatic C6-C8	mg/Kg	NS	1200	NS	<26.5	NA	<32.4	NA	<31.4	NA	<32.4	NA	<34.2	NA	<29.4	NA	<26.8	NA	<29.1	NA
Aliphatic >C8-C10	mg/Kg	NS	120	NS	<26.5	NA	<32.4	NA	<31.4	NA	<32.4	NA	<34.2	NA	<29.4	NA	<26.8	NA	<29.1	NA
Aliphatic >C10-C12	mg/Kg	NS	230	NS	<5.98	NA	7.76	NA	<6.00	NA	<6.00	NA	<5.98	NA	<5.96	NA	<5.96	NA	<5.95	NA
Aliphatic >C12-C16	mg/Kg	NS	370	NS	<5.98	NA	37.4	NA	<6.00	NA	<6.00	NA	<5.98	NA	<5.96	NA	<5.96	NA	<5.95	NA
Aliphatic >C16-C35	mg/Kg	NS	7100	NS	<5.98	NA	84.6	NA	<6.00	NA	<6.00	NA	<5.98	NA	<5.96	NA	<5.96	NA	<5.95	NA
Aromatic >C8-C10	mg/Kg	NS	65	NS	<26.5	NA	<32.4	NA	<31.4	NA	<32.4	NA	<34.2	NA	<29.4	NA	<26.8	NA	<29.1	NA
Aromatic >C10-C12	mg/Kg	NS	120	NS	<5.98	NA	<5.98	NA	<6.00	NA	<6.00	NA	<5.98	NA	<5.96	NA	<5.96	NA	<5.95	NA
Aromatic >C12-C16	mg/Kg	NS	180	NS	<5.98	NA	<5.98	NA	<6.00	NA	<6.00	NA	<5.98	NA	<5.96	NA	<5.96	NA	<5.95	NA
Aromatic >C16-C21	mg/Kg	NS	150	NS	<5.98	NA	<5.98	NA	<6.00	NA	<6.00	NA	<5.98	NA	<5.96	NA	<5.96	NA	<5.95	NA
Aromatic >C21-C35	mg/Kg	NS	180	NS	<5.98	NA	16.8	NA	<6.00	NA	<6.00	NA	<5.98	NA	<5.96	NA	<5.96	NA	<5.95	NA
PAHs																				
2-Methylnaphthalene	mg/Kg	NS	1.7	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/Kg	NS	220	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	mg/Kg	NS	88	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/Kg	NS	120	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/Kg	NS	0.62	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	mg/Kg	NS	0.33	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	mg/Kg	NS	0.62	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	mg/Kg	NS	6.2	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/Kg	NS	62	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	mg/Kg	NS	0.33	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/Kg	NS	220	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	mg/Kg	NS	230	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	mg/Kg	NS	0.62	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/Kg	NS	1.5	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/Kg	NS	660	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/Kg	NS	230	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes
(a) LDNR Statewide 29-B soil standards for uplands.
(b) LDNR Statewide 29-B soil standards for wetlands.
(c) LDEQ limiting screening RECAP standard for soil.
NA = Not analyzed.
< = Not detected at or above the reporting limit shown.
Highlighted values exceed the matching standard.
29-B Salt Standards have only been applied to samples between 0-2 feet.
Samples in the SW tract are compared to 29-B wetland salt standards, all other tracts are compared to 29-B upland salt standards.

Table 9
Defendant's Soil Analytical Results Summary
Hero Lands Company, L.L.C. v Chevron U.S.A., Inc., et al.
Stella Field, Plaquemines Parish, Louisiana

Tract ID					SW								Off Site				NW					
Sample ID					SB - 129								SB-130				SS-1					
Sample Date					1/15/2020								12/17/2019				12/20/2019					
Sample Interval					0-1'		1-2'		0-2'		2-3'		2-4'		4-6'		0-1'		1-2'		2-3'	
Sampler					ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON
Parameters	Units	29-B Limit ^a	29-B Limit ^b	RECAP LSS ^c																		
Salts																						
% Moisture	%	NS	NS	NS	31.1	28.9	27.5	27.8	31.5	NA	28.5	27.4	10.4	NA	36.9	NA	23	NA	23.3	NA	29.4	NA
Cation Exchange Capacity (CEC)	meq/100g	NS	NS	NS	55.4	44.4	35.9	44.6	NA	NA	31.9	34.2	NA	NA	NA	NA	36.6	NA	41.1	NA	55.6	NA
Electrical Conductivity	mmhos/cm	4	8	NS	1.81	1.83	3.48	2.67	NA	NA	3.62	2.85	NA	NA	NA	NA	1.23	NA	2.15	NA	1.76	NA
pH	S.U.	6 - 9	NS	NS	7.94	7.64	7.85	7.68	NA	NA	7.94	7.78	NA	NA	NA	NA	8.31	NA	8.64	NA	8.25	NA
Exchangeable Sodium Percentage	%	15	25	NS	10.2	11.3	16.9	14.1	NA	NA	21.3	20.9	NA	NA	NA	NA	27.7	NA	28.5	NA	23.2	NA
Sodium Adsorption Ratio	Calc	12	14	NS	10.9	13.4	17.9	18.0	NA	NA	18.6	22.1	NA	NA	NA	NA	16.5	NA	24	NA	24.5	NA
Soluble Calcium	meq/L	NS	NS	NS	2.68	2.17	3.04	2.16	NA	NA	3.58	1.25	NA	NA	NA	NA	0.73	NA	0.87	NA	0.85	NA
Soluble Magnesium	meq/L	NS	NS	NS	1.13	0.83	1.33	0.91	NA	NA	1.85	0.59	NA	NA	NA	NA	0.39	NA	0.44	NA	0.43	NA
Soluble Sodium	meq/L	NS	NS	NS	15.1	16.4	26.4	22.3	NA	NA	30.6	21.2	NA	NA	NA	NA	12.3	NA	19.4	NA	19.6	NA
Metals																						
		29-B Limit ^a		RECAP LSS ^c																		
Arsenic	mg/Kg-wet	10		12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	mg/Kg-wet	NS		550	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
True Total Barium	mg/Kg	20000		NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Barium	mg/L	NS		NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/Kg-wet	500		100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Lead	mg/L	NS		NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hydrocarbons																						
Oil & Grease	%	1		NS	NA	NA	NA	NA	<0.073	NA	NA	NA	0.89	NA	<0.079	0.07	NA	NA	NA	NA	NA	NA
TPH-DRO (>C10-C28)	mg/Kg	NS		65	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	197	NA	NA	NA	NA	NA	NA
TPH-ORO (>C28-C35)	mg/Kg	NS		180	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	141	NA	NA	NA	NA	NA	NA
Aliphatic C6-C8	mg/Kg	NS		1200	NA	NA	NA	NA	<27.9	NA	NA	NA	<42.4	NA	<36.6	NA	NA	NA	NA	NA	NA	NA
Aliphatic >C8-C10	mg/Kg	NS		120	NA	NA	NA	NA	<27.9	NA	NA	NA	75.5	NA	<36.6	NA	NA	NA	NA	NA	NA	NA
Aliphatic >C10-C12	mg/Kg	NS		230	NA	NA	NA	NA	<5.98	NA	NA	NA	188	NA	<5.98	NA	NA	NA	NA	NA	NA	NA
Aliphatic >C12-C16	mg/Kg	NS		370	NA	NA	NA	NA	<5.98	NA	NA	NA	829	NA	<5.98	NA	NA	NA	NA	NA	NA	NA
Aliphatic >C16-C35	mg/Kg	NS		7100	NA	NA	NA	NA	<5.98	NA	NA	NA	3530	NA	<5.98	NA	NA	NA	NA	NA	NA	NA
Aromatic >C8-C10	mg/Kg	NS		65	NA	NA	NA	NA	<27.9	NA	NA	NA	58.6	NA	<36.6	NA	NA	NA	NA	NA	NA	NA
Aromatic >C10-C12	mg/Kg	NS		120	NA	NA	NA	NA	<5.98	NA	NA	NA	<29.9	NA	<5.98	NA	NA	NA	NA	NA	NA	NA
Aromatic >C12-C16	mg/Kg	NS		180	NA	NA	NA	NA	<5.98	NA	NA	NA	82.9	NA	<5.98	NA	NA	NA	NA	NA	NA	NA
Aromatic >C16-C21	mg/Kg	NS		150	NA	NA	NA	NA	<5.98	NA	NA	NA	97	NA	<5.98	NA	NA	NA	NA	NA	NA	NA
Aromatic >C21-C35	mg/Kg	NS		180	NA	NA	NA	NA	<5.98	NA	NA	NA	978	NA	<5.98	NA	NA	NA	NA	NA	NA	NA
PAHs																						
2-Methylnaphthalene	mg/Kg	NS		1.7	NA	NA	NA	NA	NA	NA	NA	NA	<0.0164	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/Kg	NS		220	NA	NA	NA	NA	NA	NA	NA	NA	<0.0164	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	mg/Kg	NS		88	NA	NA	NA	NA	NA	NA	NA	NA	<0.0164	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/Kg	NS		120	NA	NA	NA	NA	NA	NA	NA	NA	<0.0164	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/Kg	NS		0.62	NA	NA	NA	NA	NA	NA	NA	NA	<0.0164	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	mg/Kg	NS		0.33	NA	NA	NA	NA	NA	NA	NA	NA	<0.0164	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	mg/Kg	NS		0.62	NA	NA	NA	NA	NA	NA	NA	NA	<0.0164	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	mg/Kg	NS		6.2	NA	NA	NA	NA	NA	NA	NA	NA	<0.0164	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/Kg	NS		62	NA	NA	NA	NA	NA	NA	NA	NA	<0.0164	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	mg/Kg	NS		0.33	NA	NA	NA	NA	NA	NA	NA	NA	<0.0164	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/Kg	NS		220	NA	NA	NA	NA	NA	NA	NA	NA	<0.0164	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	mg/Kg	NS		230	NA	NA	NA	NA	NA	NA	NA	NA	<0.0164	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	mg/Kg	NS		0.62	NA	NA	NA	NA	NA	NA	NA	NA	<0.0164	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/Kg	NS		1.5	NA	NA	NA	NA	NA	NA	NA	NA	<0.0164	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/Kg	NS		660	NA	NA	NA	NA	NA	NA	NA	NA	<0.0164	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/Kg	NS		230	NA	NA	NA	NA	NA	NA	NA	NA	<0.0164	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes
(a) LDNR Statewide 29-B soil standards for uplands.
(b) LDNR Statewide 29-B soil standards for wetlands.
(c) LDEQ limiting screening RECAP standard for soil.
NA = Not analyzed.
< = Not detected at or above the reporting limit shown.
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Samples in the SW tract are compared to 29-B wetland salt standards, all other tracts are compared to 29-B upland salt standards.

Table 9
Defendant's Soil Analytical Results Summary
Hero Lands Company, L.L.C. v Chevron U.S.A., Inc., et al.
Stella Field, Plaquemines Parish, Louisiana

Tract ID					NW						NW						NW					
Sample ID					SS-2						SS-3						SS-4					
Sample Date					12/20/2019						12/20/2019						12/20/2019					
Sample Interval					0-1'		1-2'		2-3'		0-1'		1-2'		2-3'		0-1'		1-2'		2-3'	
Sampler					ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON
Parameters	Units	29-B Limit ^a	29-B Limit ^b	RECAP LSS ^c																		
Salts																						
% Moisture	%	NS	NS	NS	23.9	NA	21.5	NA	31.1	NA	18	17.6	24.5	23.6	27.7	27.1	24.3	23.8	30.3	26.8	30.3	31.1
Cation Exchange Capacity (CEC)	meq/100g	NS	NS	NS	29.9	NA	40.9	NA	43	NA	34.9	35.1	42.4	49.7	65	56.5	28.3	40.5	43.5	42.8	51.8	51.6
Electrical Conductivity	mmhos/cm	4	8	NS	0.97	NA	0.67	NA	1.73	NA	2.71	2.03	3.42	2.72	2.74	2.97	2.02	2.46	1.99	3.04	1.57	2.32
pH	S.U.	6 - 9	NS	NS	7.91	NA	8.31	NA	8.71	NA	7.89	7.75	7.64	7.55	7.65	7.50	8.32	8.34	8.11	8.25	8.34	8.08
Exchangeable Sodium Percentage	%	15	25	NS	9.99	NA	1.79	NA	46.9	NA	13.4	10.9	16.6	12.8	9.85	11.9	32.2	23.5	70.3	28.7	49	34.4
Sodium Adsorption Ratio	Calc	12	14	NS	8.09	NA	7.92	NA	22.1	NA	13.8	8.64	17.7	11.3	17	13.0	20.8	23.0	17.9	31.5	18.5	26.1
Soluble Calcium	meq/L	NS	NS	NS	0.99	NA	0.42	NA	0.78	NA	3.65	3.38	4	3.37	2.92	3.21	0.76	1.30	0.83	0.84	0.46	0.57
Soluble Magnesium	meq/L	NS	NS	NS	0.5	NA	0.23	NA	0.43	NA	1.5	1.34	1.83	1.70	1.33	1.58	0.4	0.68	0.46	0.45	0.24	0.35
Soluble Sodium	meq/L	NS	NS	NS	6.98	NA	4.5	NA	17.2	NA	22.1	13.3	30.2	18.0	24.8	20.1	15.8	22.9	14.4	25.3	11	17.7
Metals			29-B Limit^a	RECAP LSS^c																		
Arsenic	mg/Kg-wet	10	12	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	mg/Kg-wet	NS	550	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
True Total Barium	mg/Kg	20000	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Barium	mg/L	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/Kg-wet	500	100	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Lead	mg/L	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hydrocarbons																						
Oil & Grease	%	1	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH-DRO (>C10-C28)	mg/Kg	NS	65	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH-ORO (>C28-C35)	mg/Kg	NS	180	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aliphatic C6-C8	mg/Kg	NS	1200	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aliphatic >C8-C10	mg/Kg	NS	120	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aliphatic >C10-C12	mg/Kg	NS	230	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aliphatic >C12-C16	mg/Kg	NS	370	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aliphatic >C16-C35	mg/Kg	NS	7100	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aromatic >C8-C10	mg/Kg	NS	65	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aromatic >C10-C12	mg/Kg	NS	120	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aromatic >C12-C16	mg/Kg	NS	180	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aromatic >C16-C21	mg/Kg	NS	150	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aromatic >C21-C35	mg/Kg	NS	180	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PAHs																						
2-Methylnaphthalene	mg/Kg	NS	1.7	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/Kg	NS	220	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	mg/Kg	NS	88	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/Kg	NS	120	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/Kg	NS	0.62	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	mg/Kg	NS	0.33	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	mg/Kg	NS	0.62	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	mg/Kg	NS	6.2	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/Kg	NS	62	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	mg/Kg	NS	0.33	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/Kg	NS	220	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	mg/Kg	NS	230	NS	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	NS	0.62	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/Kg	NS	1.5	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/Kg	NS	660	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/Kg	NS	230	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes
(a) LDNR Statewide 29-B soil standards for uplands.
(b) LDNR Statewide 29-B soil standards for wetlands.
(c) LDEQ limiting screening RECAP standard for soil.
NA = Not analyzed.
< = Not detected at or above the reporting limit shown.
Highlighted values exceed the matching standard.
29-B Salt Standards have only been applied to samples between 0-2 feet.
Samples in the SW tract are compared to 29-B wetland salt standards, all other tracts are compared to 29-B upland salt standards.

Table 9
Defendant's Soil Analytical Results Summary
Hero Lands Company, L.L.C. v Chevron U.S.A., Inc., et al.
Stella Field, Plaquemines Parish, Louisiana

Tract ID					NE						NE						NE					
Sample ID					SS-5						SS-6						SS-7					
Sample Date					12/17/2019						12/17/2019						12/17/2019					
Sample Interval					0-1'		1-2'		2-3'		0-1'		1-2'		2-3'		0-1'		1-2'		2-3'	
Sampler					ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON
Parameters	Units	29-B Limit ^a	29-B Limit ^b	RECAP LSS ^c																		
Salts																						
% Moisture	%	NS	NS	NS	16.2	15.9	16.8	16.0	18.9	18.8	18.4	NA	17.2	NA	19.2	NA	9.4	NA	18.8	NA	22.8	NA
Cation Exchange Capacity (CEC)	meq/100g	NS	NS	NS	13.9	11.3	10.1	7.65	16.2	15.1	40.2	NA	51.7	NA	52.8	NA	17.3	NA	26.4	NA	31.6	NA
Electrical Conductivity	mmhos/cm	4	8	NS	0.62	0.39	0.44	0.44	0.44	0.59	0.43	NA	0.68	NA	0.97	NA	5.49	NA	4.28	NA	6.83	NA
pH	S.U.	6 - 9	NS	NS	7.23	6.70	7.95	7.55	8.01	7.91	7.68	NA	7.65	NA	7.61	NA	8.55	NA	8	NA	8.04	NA
Exchangeable Sodium Percentage	%	15	25	NS	<0.10	0.59	1.35	1.38	3.33	3.15	0.3	NA	0.76	NA	1.41	NA	27	NA	20.5	NA	29	NA
Sodium Adsorption Ratio	Calc	12	14	NS	1	0.72	1.78	1.56	2.96	2.97	0.9	NA	1.19	NA	2.42	NA	28.8	NA	30.2	NA	37.7	NA
Soluble Calcium	meq/L	NS	NS	NS	3.38	2.11	1.36	1.66	0.96	1.58	1.86	NA	3.06	NA	3.32	NA	3.45	NA	2.35	NA	3.35	NA
Soluble Magnesium	meq/L	NS	NS	NS	1.01	0.74	0.62	0.73	0.45	0.82	0.67	NA	1.25	NA	1.51	NA	1.64	NA	1.17	NA	1.59	NA
Soluble Sodium	meq/L	NS	NS	NS	1.48	0.86	1.77	1.71	2.48	3.25	1.01	NA	1.75	NA	3.76	NA	45.9	NA	40.1	NA	59.3	NA
Metals			29-B Limit ^a	RECAP LSS ^c																		
Arsenic	mg/Kg-wet	10	12	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	mg/Kg-wet	NS	550	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
True Total Barium	mg/Kg	20000	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Barium	mg/L	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/Kg-wet	500	100	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Lead	mg/L	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hydrocarbons																						
Oil & Grease	%	1	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH-DRO (>C10-C28)	mg/Kg	NS	65	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH-ORO (>C28-C35)	mg/Kg	NS	180	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aliphatic C6-C8	mg/Kg	NS	1200	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aliphatic >C8-C10	mg/Kg	NS	120	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aliphatic >C10-C12	mg/Kg	NS	230	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aliphatic >C12-C16	mg/Kg	NS	370	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aliphatic >C16-C35	mg/Kg	NS	7100	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aromatic >C8-C10	mg/Kg	NS	65	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aromatic >C10-C12	mg/Kg	NS	120	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aromatic >C12-C16	mg/Kg	NS	180	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aromatic >C16-C21	mg/Kg	NS	150	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aromatic >C21-C35	mg/Kg	NS	180	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PAHs																						
2-Methylnaphthalene	mg/Kg	NS	1.7	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/Kg	NS	220	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	mg/Kg	NS	88	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/Kg	NS	120	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/Kg	NS	0.62	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	mg/Kg	NS	0.33	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	mg/Kg	NS	0.62	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	mg/Kg	NS	6.2	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/Kg	NS	62	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	mg/Kg	NS	0.33	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/Kg	NS	220	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	mg/Kg	NS	230	NS	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	NS	0.62	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/Kg	NS	1.5	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/Kg	NS	660	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/Kg	NS	230	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes
(a) LDNR Statewide 29-B soil standards for uplands.
(b) LDNR Statewide 29-B soil standards for wetlands.
(c) LDEQ limiting screening RECAP standard for soil.
NA = Not analyzed.
< = Not detected at or above the reporting limit shown.
Highlighted values exceed the matching standard.
29-B Salt Standards have only been applied to samples between 0-2 feet.
Samples in the SW tract are compared to 29-B wetland salt standards, all other tracts are compared to 29-B upland salt standards.

Table 9
Defendant's Soil Analytical Results Summary
Hero Lands Company, L.L.C. v Chevron U.S.A., Inc., et al.
Stella Field, Plaquemines Parish, Louisiana

Tract ID					NE						NE						NE					
Sample ID					SS-8						SS-9						SS-10					
Sample Date					12/17/2019						12/17/2019						12/17/2019					
Sample Interval					0-1'		1-2'		2-3'		0-1'		1-2'		2-3'		0-1'		1-2'		2-3'	
Sampler					ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON
Parameters	Units	29-B Limit ^a	29-B Limit ^b	RECAP LSS ^c																		
Salts																						
% Moisture	%	NS	NS	NS	19.2	18.6	24.6	22.7	24.2	24.1	21	NA	30.3	NA	24.6	NA	20	NA	23.1	NA	28.2	NA
Cation Exchange Capacity (CEC)	meq/100g	NS	NS	NS	26.4	37.6	24.4	23.0	23.9	17.8	18.4	NA	82.6	NA	31.7	NA	31.9	NA	32.7	NA	35.9	NA
Electrical Conductivity	mmhos/cm	4	8	NS	2.25	2.30	3.76	3.87	5.11	8.26	13.4	NA	10.2	NA	13.8	NA	1.41	NA	1.12	NA	1.16	NA
pH	S.U.	6 - 9	NS	NS	8.21	8.06	8.37	8.31	8.54	8.17	7.94	NA	8.06	NA	8.03	NA	8.63	NA	9.17	NA	9.01	NA
Exchangeable Sodium Percentage	%	15	25	NS	17.6	13.2	38.5	48.5	58	59.5	42.5	NA	34.6	NA	61.8	NA	23.4	NA	47.4	NA	59	NA
Sodium Adsorption Ratio	Calc	12	14	NS	20.5	11.9	28.5	30.2	36.3	31.9	38.9	NA	58.7	NA	57.6	NA	19.9	NA	17.7	NA	13.1	NA
Soluble Calcium	meq/L	NS	NS	NS	1.8	3.09	1.43	1.33	1.69	3.79	11.5	NA	3.25	NA	5.6	NA	0.92	NA	0.59	NA	0.77	NA
Soluble Magnesium	meq/L	NS	NS	NS	0.66	0.64	0.71	0.68	0.94	6.11	4.34	NA	1.55	NA	2.67	NA	0.41	NA	0.28	NA	0.28	NA
Soluble Sodium	meq/L	NS	NS	NS	22.8	16.3	29.4	30.3	41.6	70.9	110	NA	90.9	NA	117	NA	16.2	NA	11.7	NA	9.49	NA
Metals			29-B Limit ^a	RECAP LSS ^c																		
Arsenic	mg/Kg-wet	10	12	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Barium	mg/Kg-wet	NS	550	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
True Total Barium	mg/Kg	20000	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SPLP Barium	mg/L	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Lead	mg/Kg-wet	500	100	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SPLP Lead	mg/L	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Hydrocarbons																						
Oil & Grease	%	1	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
TPH-DRO (>C10-C28)	mg/Kg	NS	65	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
TPH-ORO (>C28-C35)	mg/Kg	NS	180	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aliphatic C6-C8	mg/Kg	NS	1200	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aliphatic >C8-C10	mg/Kg	NS	120	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aliphatic >C10-C12	mg/Kg	NS	230	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aliphatic >C12-C16	mg/Kg	NS	370	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aliphatic >C16-C35	mg/Kg	NS	7100	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aromatic >C8-C10	mg/Kg	NS	65	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aromatic >C10-C12	mg/Kg	NS	120	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aromatic >C12-C16	mg/Kg	NS	180	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aromatic >C16-C21	mg/Kg	NS	150	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aromatic >C21-C35	mg/Kg	NS	180	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
PAHs																						
2-Methylnaphthalene	mg/Kg	NS	1.7	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Acenaphthene	mg/Kg	NS	220	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Acenaphthylene	mg/Kg	NS	88	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Anthracene	mg/Kg	NS	120	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Benzo(a)anthracene	mg/Kg	NS	0.62	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Benzo(a)pyrene	mg/Kg	NS	0.33	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Benzo(b)fluoranthene	mg/Kg	NS	0.62	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Benzo(k)fluoranthene	mg/Kg	NS	6.2	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Chrysene	mg/Kg	NS	62	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Dibenz(a,h)anthracene	mg/Kg	NS	0.33	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Fluoranthene	mg/Kg	NS	220	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Fluorene	mg/Kg	NS	230	NS	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	NS	0.62	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Naphthalene	mg/Kg	NS	1.5	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Phenanthrene	mg/Kg	NS	660	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Pyrene	mg/Kg	NS	230	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Notes
(a) LDNR Statewide 29-B soil standards for uplands.
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NA = Not analyzed.
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Samples in the SW tract are compared to 29-B wetland salt standards, all other tracts are compared to 29-B upland salt standards.

Table 9
Defendant's Soil Analytical Results Summary
Hero Lands Company, L.L.C. v Chevron U.S.A., Inc., et al.
Stella Field, Plaquemines Parish, Louisiana

Tract ID					SE						SE						SE					
Sample ID					SS-11						SS-12						SS-13					
Sample Date					1/8/2020						1/8/2020						1/8/2020					
Sample Interval					0-1'		1-2'		2-3'		0-1'		1-2'		2-3'		0-1'		1-2'		2-3'	
Sampler					ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON
Parameters	Units	29-B Limit ^a	29-B Limit ^b	RECAP LSS ^c																		
Salts																						
% Moisture	%	NS	NS	NS	24	NA	25.9	NA	29	NA	18.5	NA	23.2	NA	26.1	NA	17.5	NA	24	NA	26.7	NA
Cation Exchange Capacity (CEC)	meq/100g	NS	NS	NS	45.3	NA	40.4	NA	43.6	NA	29.2	NA	35.4	NA	62.5	NA	28.9	NA	46.4	NA	53.3	NA
Electrical Conductivity	mmhos/cm	4	8	NS	3.68	NA	8.19	NA	15.3	NA	8.4	NA	11	NA	14.9	NA	2.23	NA	2.07	NA	8.72	NA
pH	S.U.	6 - 9	NS	NS	7.73	NA	8.28	NA	8.24	NA	8.18	NA	8.01	NA	8.41	NA	8.43	NA	8.05	NA	8.51	NA
Exchangeable Sodium Percentage	%	15	25	NS	21.5	NA	29.3	NA	33.6	NA	20.1	NA	36.5	NA	33	NA	11.8	NA	15.1	NA	41.7	NA
Sodium Adsorption Ratio	Calc	12	14	NS	24.1	NA	37.7	NA	48.5	NA	27.4	NA	33.5	NA	40.6	NA	13.5	NA	15	NA	44	NA
Soluble Calcium	meq/L	NS	NS	NS	2.16	NA	5.05	NA	7.58	NA	8.42	NA	6.85	NA	8.42	NA	3.25	NA	1.73	NA	3.62	NA
Soluble Magnesium	meq/L	NS	NS	NS	1.24	NA	2.9	NA	3.73	NA	3.18	NA	3.58	NA	4.44	NA	1	NA	0.79	NA	1.9	NA
Soluble Sodium	meq/L	NS	NS	NS	31.4	NA	75.2	NA	115	NA	66	NA	76.4	NA	103	NA	19.6	NA	16.8	NA	73.1	NA
Metals			29-B Limit ^a	RECAP LSS ^c																		
Arsenic	mg/Kg-wet	10	12	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	mg/Kg-wet	NS	550	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
True Total Barium	mg/Kg	20000	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Barium	mg/L	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/Kg-wet	500	100	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Lead	mg/L	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hydrocarbons																						
Oil & Grease	%	1	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH-DRO (>C10-C28)	mg/Kg	NS	65	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH-ORO (>C28-C35)	mg/Kg	NS	180	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aliphatic C6-C8	mg/Kg	NS	1200	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aliphatic >C8-C10	mg/Kg	NS	120	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aliphatic >C10-C12	mg/Kg	NS	230	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aliphatic >C12-C16	mg/Kg	NS	370	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aliphatic >C16-C35	mg/Kg	NS	7100	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aromatic >C8-C10	mg/Kg	NS	65	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aromatic >C10-C12	mg/Kg	NS	120	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aromatic >C12-C16	mg/Kg	NS	180	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aromatic >C16-C21	mg/Kg	NS	150	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aromatic >C21-C35	mg/Kg	NS	180	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PAHs																						
2-Methylnaphthalene	mg/Kg	NS	1.7	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/Kg	NS	220	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	mg/Kg	NS	88	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/Kg	NS	120	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/Kg	NS	0.62	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	mg/Kg	NS	0.33	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	mg/Kg	NS	0.62	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	mg/Kg	NS	6.2	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/Kg	NS	62	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	mg/Kg	NS	0.33	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/Kg	NS	220	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	mg/Kg	NS	230	NS	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	NS	0.62	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/Kg	NS	1.5	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/Kg	NS	660	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/Kg	NS	230	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes
(a) LDNR Statewide 29-B soil standards for uplands.
(b) LDNR Statewide 29-B soil standards for wetlands.
(c) LDEQ limiting screening RECAP standard for soil.
NA = Not analyzed.
< = Not detected at or above the reporting limit shown.
Highlighted values exceed the matching standard.
29-B Salt Standards have only been applied to samples between 0-2 feet.
Samples in the SW tract are compared to 29-B wetland salt standards, all other tracts are compared to 29-B upland salt standards.

Table 9
Defendant's Soil Analytical Results Summary
Hero Lands Company, L.L.C. v Chevron U.S.A., Inc., et al.
Stella Field, Plaquemines Parish, Louisiana

Tract ID					SW						SE						SE					
Sample ID					SS-14R						SS-15						SS-17					
Sample Date					1/6/2020						1/8/2020						1/9/2020					
Sample Interval					0-1'		1-2'		2-3'		0-1'		1-2'		2-3'		0-1'		1-2'		2-3'	
Sampler					ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON
Parameters	Units	29-B Limit ^a	29-B Limit ^b	RECAP LSS ^c																		
Salts																						
% Moisture	%	NS	NS	NS	21.5	NA	19.2	NA	18.8	NA	24.6	NA	24.1	NA	29.4	NA	9	NA	9.7	NA	22.8	NA
Cation Exchange Capacity (CEC)	meq/100g	NS	NS	NS	41.9	NA	34	NA	33.9	NA	48.4	NA	46.8	NA	56.4	NA	27.1	NA	23.3	NA	24.3	NA
Electrical Conductivity	mmhos/cm	4	8	NS	1.86	NA	3.27	NA	5.31	NA	7.38	NA	24	NA	34.1	NA	4.14	NA	5.21	NA	5.97	NA
pH	S.U.	6 - 9	NS	NS	7.08	NA	7.68	NA	7.28	NA	7.78	NA	7.3	NA	7.7	NA	10.48	NA	10.65	NA	8.46	NA
Exchangeable Sodium Percentage	%	15	25	NS	13.9	NA	25.4	NA	21.1	NA	21.8	NA	48	NA	68.6	NA	1.95	NA	1.93	NA	29.3	NA
Sodium Adsorption Ratio	Calc	12	14	NS	13.5	NA	20	NA	23.9	NA	27.8	NA	46.5	NA	57.8	NA	7.87	NA	7.77	NA	31.7	NA
Soluble Calcium	meq/L	NS	NS	NS	1.21	NA	1.83	NA	4.17	NA	5.58	NA	17.3	NA	24.3	NA	22.2	NA	25.9	NA	3.55	NA
Soluble Magnesium	meq/L	NS	NS	NS	0.57	NA	0.89	NA	1.9	NA	3.1	NA	11.8	NA	16	NA	1.19	NA	1.09	NA	1.87	NA
Soluble Sodium	meq/L	NS	NS	NS	12.8	NA	23.3	NA	41.7	NA	57.9	NA	178	NA	260	NA	26.9	NA	28.6	NA	52.2	NA
Metals			29-B Limit ^a	RECAP LSS ^c																		
Arsenic	mg/Kg-wet	10	12	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	mg/Kg-wet	NS	550	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
True Total Barium	mg/Kg	20000	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Barium	mg/L	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/Kg-wet	500	100	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Lead	mg/L	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hydrocarbons																						
Oil & Grease	%	1	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH-DRO (>C10-C28)	mg/Kg	NS	65	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH-ORO (>C28-C35)	mg/Kg	NS	180	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aliphatic C6-C8	mg/Kg	NS	1200	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aliphatic >C8-C10	mg/Kg	NS	120	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aliphatic >C10-C12	mg/Kg	NS	230	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aliphatic >C12-C16	mg/Kg	NS	370	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aliphatic >C16-C35	mg/Kg	NS	7100	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aromatic >C8-C10	mg/Kg	NS	65	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aromatic >C10-C12	mg/Kg	NS	120	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aromatic >C12-C16	mg/Kg	NS	180	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aromatic >C16-C21	mg/Kg	NS	150	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aromatic >C21-C35	mg/Kg	NS	180	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PAHs																						
2-Methylnaphthalene	mg/Kg	NS	1.7	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/Kg	NS	220	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	mg/Kg	NS	88	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/Kg	NS	120	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/Kg	NS	0.62	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	mg/Kg	NS	0.33	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	mg/Kg	NS	0.62	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	mg/Kg	NS	6.2	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/Kg	NS	62	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	mg/Kg	NS	0.33	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/Kg	NS	220	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	mg/Kg	NS	230	NS	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	NS	0.62	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/Kg	NS	1.5	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/Kg	NS	660	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/Kg	NS	230	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes
(a) LDNR Statewide 29-B soil standards for uplands.
(b) LDNR Statewide 29-B soil standards for wetlands.
(c) LDEQ limiting screening RECAP standard for soil.
NA = Not analyzed.
< = Not detected at or above the reporting limit shown.
Highlighted values exceed the matching standard.
29-B Salt Standards have only been applied to samples between 0-2 feet.
Samples in the SW tract are compared to 29-B wetland salt standards, all other tracts are compared to 29-B upland salt standards.

Table 9
Defendant's Soil Analytical Results Summary
Hero Lands Company, L.L.C. v Chevron U.S.A., Inc., et al.
Stella Field, Plaquemines Parish, Louisiana

Tract ID					SW						NE						SW					
Sample ID					SS-18						SS-19						SS-20					
Sample Date					1/6/2020						12/17/2019						1/6/2020					
Sample Interval					0-1'		1-2'		2-3'		0-1'		1-2'		2-3'		0-1'		1-2'		2-3'	
Sampler					ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON	ERM	ICON
Parameters	Units	29-B Limit ^a	29-B Limit ^b	RECAP LSS ^c																		
Salts																						
% Moisture	%	NS	NS	NS	25.7	25.6	27.4	27.3	22.3	22.1	16.8	NA	20.6	NA	21.2	NA	20.4	19.5	27.2	26.7	27.7	29.7
Cation Exchange Capacity (CEC)	meq/100g	NS	NS	NS	54.4	56.8	70.9	56.5	48.6	57.5	29.2	NA	30.5	NA	19.5	NA	55.3	64.2	64.3	66.8	66.2	75.8
Electrical Conductivity	mmhos/cm	4	8	NS	0.68	0.59	3.36	2.65	2.39	2.67	3.05	NA	2.7	NA	3.13	NA	0.34	0.34	1.88	2.06	3.21	3.81
pH	S.U.	6 - 9	NS	NS	5.41	5.31	6.05	5.83	7.11	6.92	8.17	NA	8.38	NA	8.96	NA	5.51	5.33	5.27	5.26	5.94	6.31
Exchangeable Sodium Percentage	%	15	25	NS	1.35	1.16	3.7	5.01	4.34	6.47	10.6	NA	30.3	NA	67.1	NA	0.84	0.93	2.96	3.50	5.43	5.54
Sodium Adsorption Ratio	Calc	12	14	NS	1.75	1.78	6.29	4.67	8.17	6.26	17.3	NA	25.7	NA	33.1	NA	2.24	1.27	6.82	4.17	8.09	7.26
Soluble Calcium	meq/L	NS	NS	NS	1.94	1.91	8.65	7.36	4.77	5.81	2.7	NA	1.17	NA	0.89	NA	1.16	1.04	4.53	5.13	7.2	8.29
Soluble Magnesium	meq/L	NS	NS	NS	1.11	1.07	5.24	4.52	2.69	3.41	0.94	NA	0.54	NA	0.46	NA	0.62	0.62	2.91	3.27	4.63	5.32
Soluble Sodium	meq/L	NS	NS	NS	2.17	2.18	16.6	11.4	15.8	13.5	23.4	NA	23.7	NA	27.2	NA	2.11	1.15	13.2	8.55	19.7	18.9
Metals			29-B Limit ^a	RECAP LSS ^c																		
Arsenic	mg/Kg-wet	10	12	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Barium	mg/Kg-wet	NS	550	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
True Total Barium	mg/Kg	20000	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SPLP Barium	mg/L	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Lead	mg/Kg-wet	500	100	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SPLP Lead	mg/L	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Hydrocarbons																						
Oil & Grease	%	1	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
TPH-DRO (>C10-C28)	mg/Kg	NS	65	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
TPH-ORO (>C28-C35)	mg/Kg	NS	180	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aliphatic C6-C8	mg/Kg	NS	1200	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aliphatic >C8-C10	mg/Kg	NS	120	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aliphatic >C10-C12	mg/Kg	NS	230	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aliphatic >C12-C16	mg/Kg	NS	370	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aliphatic >C16-C35	mg/Kg	NS	7100	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aromatic >C8-C10	mg/Kg	NS	65	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aromatic >C10-C12	mg/Kg	NS	120	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aromatic >C12-C16	mg/Kg	NS	180	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aromatic >C16-C21	mg/Kg	NS	150	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aromatic >C21-C35	mg/Kg	NS	180	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
PAHs																						
2-Methylnaphthalene	mg/Kg	NS	1.7	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Acenaphthene	mg/Kg	NS	220	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Acenaphthylene	mg/Kg	NS	88	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Anthracene	mg/Kg	NS	120	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Benzo(a)anthracene	mg/Kg	NS	0.62	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Benzo(a)pyrene	mg/Kg	NS	0.33	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Benzo(b)fluoranthene	mg/Kg	NS	0.62	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Benzo(k)fluoranthene	mg/Kg	NS	6.2	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Chrysene	mg/Kg	NS	62	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Dibenz(a,h)anthracene	mg/Kg	NS	0.33	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Fluoranthene	mg/Kg	NS	220	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Fluorene	mg/Kg	NS	230	NS	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	NS	0.62	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Naphthalene	mg/Kg	NS	1.5	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Phenanthrene	mg/Kg	NS	660	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Pyrene	mg/Kg	NS	230	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Notes
(a) LDNR Statewide 29-B soil standards for uplands.
(b) LDNR Statewide 29-B soil standards for wetlands.
(c) LDEQ limiting screening RECAP standard for soil.
NA = Not analyzed.
< = Not detected at or above the reporting limit shown.
Highlighted values exceed the matching standard.
29-B Salt Standards have only been applied to samples between 0-2 feet.
Samples in the SW tract are compared to 29-B wetland salt standards, all other tracts are compared to 29-B upland salt standards.

Table 10
EDX and X-Ray Diffraction (XRD) Analysis
Hero Lands Company, L.L.C. v Chevron U.S.A., Inc., et al.
Stella Field, Plaquemines Parish, Louisiana

Sample ID			SB-116	SB-117	SB-13R
Sample Date			7/8/2020	7/8/2020	7/8/2020
Sample Interval			0-2'	0-2'	0-2'
Sampler			ERM	ERM	ERM
Parameters	Analytical Method	Units			
<i>Elemental Composition</i>					
Total Barium (Ba)	EDX	%	0.45	21.00	0.62
<i>Mineral Phase</i>					
Barite (BaSO ₄)	XRD	%	0.66	29.62	0.82
Witherite (BaCO ₃)	XRD	%	ND	ND	ND
Barium Chloride (BaCl ₂)	XRD	%	ND	ND	ND
Baria (BaO)	XRD	%	ND	ND	ND
Barium Peroxide (BaO ₂)	XRD	%	ND	ND	ND

Notes:

ND = None Detected

EDX - Energy Dispersive X-Ray Spectrometry

XRD - X-Ray Diffraction

Table 11
Water Quality Parameters
Hero Lands Company, L.L.C. v Chevron U.S.A., Inc., et al.
Stella Field, Plaquemines Parish, Louisiana

Well ID BC-1A								
Date	8/28/2018							
DTW	2.7'							
TD	14'							
Stickup	Flush with surface							
Method	Peristaltic Pump							
Time	Gal	Temp (°C)	pH	Cond (ms)	ORP	Turb	TDS	DO
0711	0.0	26.2	7.45	3.79	120	NA	NA	NA
0721	0.5	25.4	7.56	3.85	100	NA	NA	NA
0725	1.0	25.3	7.46	3.96	87	74.2	NA	NA
0732	1.5	25.3	7.42	4.07	74	56.4	NA	NA
0739	2.0	25.3	7.43	4.16	56	16.6	NA	NA
0745	2.5	25.4	7.42	4.32	45	15.5	NA	NA
0751	3.0	25.4	7.43	4.31	34	10.19	NA	NA
0759	3.5	25.5	7.41	4.50	31	8.37	NA	NA
0800	Begin Sampling							

Well ID BC-2A								
Date	8/27/2018							
DTW	1.95'							
TD	17.94'							
Stickup	Flush with surface							
Method	Peristaltic Pump							
Time	Gal	Temp (°C)	pH	Cond (ms)	ORP	Turb	TDS	DO
1352	0.0	28.2	5.59	143.5	51	NA	NA	NA
1354	0.5	27.6	5.13	137.1	10	74	NA	NA
1405	1.0	27.4	5.74	134.0	-3	13.2	NA	NA
1410	1.5	27.4	5.69	133.3	-6	5.00	NA	NA
1416	2.0	27.8	5.74	135.1	-10	7.00	NA	NA
1423	2.5	27.3	5.76	133.1	-13	4.82	NA	NA
1435	Begin Sampling							

Well ID BC-2C								
Date	8/27/2018							
DTW	2.19'							
TD	51.98'							
Stickup	Flush with surface							
Method	Peristaltic Pump							
Time	Gal	Temp (°C)	pH	Cond (ms)	ORP	Turb	TDS	DO
1554	0.0	27.0	7.06	22.85	-31	NA	NA	NA
1600	0.5	26.3	6.97	21.69	-59	67	NA	NA
1607	1.0	26.1	7.05	21.44	-69	7.06	NA	NA
1611	1.5	25.9	7.08	21.59	-72	8.46	NA	NA
1618	2.0	25.9	6.94	21.46	-76	8.64	NA	NA
1623	2.5	26.0	6.91	21.44	-78	3.32	NA	NA
1630	3.0	25.8	6.90	21.40	-80	3.22	NA	NA
1637	3.5	26.2	6.89	21.55	-80	2.23	NA	NA
1645	4.0	26.1	6.87	21.43	-81	2.00	NA	NA
1650	Begin Sampling							
1728	Finished Sampling							

Table 11
Water Quality Parameters
Hero Lands Company, L.L.C. v Chevron U.S.A., Inc., et al.
Stella Field, Plaquemines Parish, Louisiana

Well ID BC-2D								
Date	8/27/2018							
DTW	0.7'							
TD	80.77'							
Stickup	Flush with surface							
Method	Peristaltic Pump							
Time	Gal	Temp (°C)	pH	Cond (ms)	ORP	Turb	TDS	DO
1339	0.5	26.3	6.72	19.04	62	NA	NA	NA
1345	1.0	25.5	6.94	17.82	31	NA	NA	NA
1351	1.5	25.5	6.88	17.61	5	NA	NA	NA
1358	2.0	25.7	6.91	17.32	-45	86	NA	NA
1404	2.5	25.5	6.96	17.16	-60	77	NA	NA
1411	3.0	25.3	6.97	17.04	-64	67.6	NA	NA
1417	3.5	25.7	6.97	16.94	-69	46.5	NA	NA
1427	4.0	26.0	6.95	16.83	-78	33.1	NA	NA
1438	4.5	26.5	6.95	16.88	-84	35.9	NA	NA
1448	5.0	26.3	7.12	16.87	-83	41	NA	NA
1459	5.5	26.7	7.17	16.80	-77	46.1	NA	NA
1510	6.0	26.2	7.14	16.73	-76	70.2	NA	NA
1530	Begin Sampling							

Well ID BC-3A								
Date	8/27/2018							
DTW	2.21'							
TD	15.82'							
Stickup	Flush with surface							
Method	Peristaltic Pump							
Time	Gal	Temp (°C)	pH	Cond (ms)	ORP	Turb	TDS	DO
1057	0.50	26.6	4.48	35.70	193	20.30	NA	NA
1105	1.00	26.0	5.55	36.63	83	8.50	NA	NA
1109	1.25	26.4	5.49	36.32	49	3.16	NA	NA
1115	1.50	26.9	5.56	36.44	22	3.30	NA	NA
1121	1.75	26.8	5.64	36.48	5	2.75	NA	NA
1124	2.00	26.6	5.66	36.63	-5	5.08	NA	NA
1130	2.50	26.4	5.69	36.68	-15	2.24	NA	NA
1136	3.00	27.3	5.77	36.69	-26	5.50	NA	NA
1140	Begin Sampling							
1240	Finish Sampling							

Table 11
Water Quality Parameters
Hero Lands Company, L.L.C. v Chevron U.S.A., Inc., et al.
Stella Field, Plaquemines Parish, Louisiana

Well ID BC-3B								
Date	8/27/2018							
DTW	2.85'							
TD	29.85'							
Stickup	Flush with surface							
Method	Peristaltic Pump							
Time	Gal	Temp (°C)	pH	Cond (ms)	ORP	Turb	TDS	DO
1103	0.5	25.8	6.05	10.39	85	10.94	NA	NA
1112	1.0	25.6	6.24	10.06	10	5.65	NA	NA
1120	1.5	26.1	6.39	9.95	-23	3.47	NA	NA
1126	2.0	25.9	6.43	9.93	-42	6.15	NA	NA
1133	2.5	26.2	6.48	9.88	-56	2.85	NA	NA
1140	3.0	26.7	6.51	9.88	-66	2.38	NA	NA
1151	3.5	26.9	6.60	9.84	-71	2.52	NA	NA
1210	Begin Sampling							
1230	Finish Sampling							

Well ID BC-4A								
Date	8/28/2018							
DTW	5.37'							
TD	19.44'							
Stickup	1.75'							
Method	Peristaltic Pump							
Time	Gal	Temp (°C)	pH	Cond (ms)	ORP	Turb	TDS	DO
1426	0.0	23.8	7.94	3.80	-106	NA	NA	NA
1433	0.5	22.9	7.89	3.65	-94	42.2	NA	NA
1440	1.0	22.8	7.71	3.61	-81	16.9	NA	NA
1446	1.5	22.8	7.63	3.59	-76	10.7	NA	NA
1452	2.0	22.8	7.61	3.59	-73	5.89	NA	NA
1457	2.5	22.8	7.57	3.60	-73	11.5	NA	NA
1500	Begin Sampling							
1545	Finish Sampling							

Well ID BC-4B								
Date	8/28/2018							
DTW	5.55'							
TD	39.54'							
Stickup	Flush with surface							
Method	Peristaltic Pump							
Time	Gal	Temp (°C)	pH	Cond (ms)	ORP	Turb	TDS	DO
1244	0.0	23.7	7.37	23.23	4	NA	NA	NA
1250	0.5	22.9	7.31	23.25	-8	34.1	NA	NA
1258	1.0	22.9	7.25	23.25	-27	14.7	NA	NA
1305	1.5	22.7	7.19	23.23	-44	13.0	NA	NA
1312	2.0	22.0	7.17	23.20	-55	7.36	NA	NA
1318	2.5	22.7	7.24	23.18	-60	10.0	NA	NA
1325	Pump Stopped and work delayed due to rain							
1339	Continue Pumping							
1339	3.00	22.8	7.37	23.31	-42	6.01	NA	NA
1346	3.50	22.6	7.19	23.13	-48	6.78	NA	NA
1350	Begin Sampling							

Table 11
Water Quality Parameters
Hero Lands Company, L.L.C. v Chevron U.S.A., Inc., et al.
Stella Field, Plaquemines Parish, Louisiana

Well ID BC-4C								
Date	8/28/2018							
DTW	0.1'							
TD	86.75'							
Stickup Method	Flush with surface Peristaltic Pump							
Time	Gal	Temp (°C)	pH	Cond (ms)	ORP	Turb	TDS	DO
1012	0.0	23.5	7.27	29.20	103	NA	NA	NA
1018	0.5	23.0	7.24	31.05	28	OR	NA	NA
1023	1.0	22.8	7.12	30.27	-16	OR	NA	NA
1028	1.5	22.8	7.12	30.47	-51	OR	NA	NA
1033	2.0	22.9	7.11	30.47	-67	OR	NA	NA
1038	2.5	23.0	7.09	30.48	-74	OR	NA	NA
1044	3.0	22.8	7.08	30.55	-77	OR	NA	NA
1048	3.5	22.8	7.09	30.38	-80	OR	NA	NA
1054	4.0	22.8	7.13	30.32	-80	108	NA	NA
1100	4.5	22.6	7.10	30.56	-82	OR	NA	NA
1105	5.0	22.6	7.07	30.38	-84	OR	NA	NA
1111	5.5	22.6	7.06	30.37	-86	76	NA	NA
1116	6.0	22.5	7.06	30.38	-88	46	NA	NA
1121	6.5	22.5	7.10	30.37	-89	81	NA	NA
1126	7.0	22.6	7.06	30.37	-91	60	NA	NA
1130	Begin Sampling							

Well ID BC-5								
Date	8/27/2018							
DTW	1.35'							
TD	17.14'							
Stickup Method	Flush with surface Peristaltic Pump							
Time	Gal	Temp (°C)	pH	Cond (ms)	ORP	Turb	TDS	DO
1712	0.0	33.4	6.91	18.31	4	NA	NA	NA
1748	0.5	31.6	6.74	18.39	-32	18.7	NA	NA
1753	1.0	31.1	6.70	18.45	-44	21.2	NA	NA
1758	1.5	30.9	6.74	18.47	-51	13.0	NA	NA
1803	2.0	30.8	6.60	18.44	-54	19.1	NA	NA
1808	2.5	30.6	6.56	18.47	-57	16.6	NA	NA
1810	Begin Sampling							
1848	Finish Sampling							

Table 11
Water Quality Parameters
Hero Lands Company, L.L.C. v Chevron U.S.A., Inc., et al.
Stella Field, Plaquemines Parish, Louisiana

Well ID BC-6								
Date	8/28/2018							
DTW	3.93'							
TD	19.82'							
Stickup	2.3'							
Method	Peristaltic Pump							
Time	Gal	Temp (°C)	pH	Cond (ms)	ORP	Turb	TDS	DO
1559	0.0	27.4	7.53	4.26	25	NA	NA	NA
1607	0.5	23.7	7.27	5.27	10	NA	NA	NA
1616	1.0	23.0	7.12	6.51	8	54.9	NA	NA
1624	1.5	23.0	7.02	7.18	-5	50.0	NA	NA
1632	2.0	23.0	6.97	7.75	-18	38.4	NA	NA
1638	2.5	23.0	6.93	7.95	-27	20.9	NA	NA
1645	3.0	23.0	6.93	8.14	-34	9.75	NA	NA
1652	3.5	23.0	6.95	8.30	-40	13.8	NA	NA
1658	4.0	23.0	6.88	8.37	-43	19.9	NA	NA
1700	Begin Sampling							
1730	Finish Sampling							

Well ID BC-7A								
Date	8/29/2018							
DTW	1.84'							
TD	17.05'							
Stickup	Flush with Surface							
Method	Peristaltic Pump							
Time	Gal	Temp (°C)	pH	Cond (ms)	ORP	Turb	TDS	DO
0829	0.0	25.4	6.22	104.0	97	NA	NA	NA
0839	0.5	24.9	5.47	106.3	-14	53.0	NA	NA
0849	1.0	24.8	5.95	108.5	-25	33.3	NA	NA
0850	1.5	24.7	5.92	104.8	-30	47.8	NA	NA
0856	2.0	24.6	5.89	111.7	-33	19.6	NA	NA
0902	2.5	24.5	5.89	111.3	-36	13.8	NA	NA
0908	3.0	24.4	5.87	112.9	-37	7.52	NA	NA
0910	Begin Sampling							
0948	Finish Sampling							

Well ID BC-7B								
Date	8/29/2018							
DTW	2.42'							
TD	33.61'							
Stickup	Flush with Surface							
Method	Peristaltic Pump							
Time	Gal	Temp (°C)	pH	Cond (ms)	ORP	Turb	TDS	DO
0705	0.0	26.5	7.20	6.40	117	NA	NA	NA
0712	0.5	24.4	7.26	5.94	54	66	NA	NA
0720	1.0	24.3	7.26	6.20	-19	41.9	NA	NA
0725	1.5	24.2	7.24	6.35	-26	12.7	NA	NA
0732	2.0	24.2	7.27	6.47	-33	5.07	NA	NA
0737	2.5	24.1	7.23	6.59	-37	4.18	NA	NA
0742	3.0	24.2	7.25	6.64	-38	6.18	NA	NA
0749	3.5	24.1	7.27	6.63	-44	12.9	NA	NA
0800	Begin Sampling							

NA = Not Analyzed

Table 11

Water Quality Parameters

*Hero Lands Company, L.L.C. v Chevron U.S.A., Inc., et al.
Stella Field, Plaquemines Parish, Louisiana*

Well ID BC-8A								
Date	8/29/2018							
DTW	3.6'							
TD	19.39'							
Stickup	2.3'							
Method	Peristaltic Pump							
Time	Gal	Temp (°C)	pH	Cond (µs)	ORP	Turb	TDS	DO
1119	0.0	27.3	6.00	117.7	-16	NA	NA	NA
1129	0.5	25.8	5.91	15.6	-37	18.2	NA	NA
1138	1.0	25.7	5.90	116.3	-44	5.18	NA	NA
1149	1.5	26.1	5.90	116.9	-50	4.52	NA	NA
1200	2.0	26.5	5.91	116.6	-53	4.63	NA	NA
1205	Begin Sampling							
1307	Finish Sampling							

Well ID BC-8B								
Date	8/29/2018							
DTW	4.23'							
TD	33.75'							
Stickup	2.1'							
Method	Peristaltic Pump							
Time	Gal	Temp (°C)	pH	Cond (ms)	ORP	Turb	TDS	DO
0958	0.0	26.2	7.38	6.48	-115	NA	NA	NA
1007	0.5	24.6	7.51	8.57	-119	NA	NA	NA
1014	1.0	24.3	7.50	7.94	-117	67.2	NA	NA
1020	1.5	24.2	7.50	7.37	-117	36.6	NA	NA
1026	2.0	24.3	7.48	7.06	-116	50.6	NA	NA
1032	2.5	24.3	7.50	6.55	-116	24.5	NA	NA
1038	3.0	24.3	7.50	6.34	-115	19.6	NA	NA
1044	3.5	24.5	7.47	6.20	-115	13.9	NA	NA
1045	Begin Sampling							

Well ID BC-9								
Date	4/9/2019							
DTW	1.58							
TD	17.62							
Stickup	Flush							
Method	Peristaltic Pump							
Time	Gal	Temp (°C)	pH	Cond (ms)	ORP	Turb	TDS	DO
1110	0.0	21.4	7.27	6.82	58.0	NA	NA	0.80
1117	0.5	21.3	7.07	11.30	-108.7	125	NA	0.17
1124	1.0	21.3	7.05	12.73	-120.5	41.7	NA	0.15
1132	1.5	21.4	7.03	13.91	-135.7	27.1	NA	0.13
1140	2.0	21.5	7.02	14.94	-139.6	13.5	NA	0.32
1146	2.5	21.5	7.02	15.56	-141.4	13.5	NA	0.13
1154	3.0	21.6	7.03	16.43	-143.3	11.4	NA	0.11
1203	3.5	21.6	7.02	17.19	-144.5	6.21	NA	0.12
1210	Sample Time							

NA = Not Analyzed

Table 11
Water Quality Parameters
Hero Lands Company, L.L.C. v Chevron U.S.A., Inc., et al.
Stella Field, Plaquemines Parish, Louisiana

Well ID BC-10								
Date	4/9/2019							
DTW	3.03							
TD	24.6							
Stickup	1.55							
Method	Peristaltic Pump							
Time	Gal	Temp (°C)	pH	Cond (ms)	ORP	Turb	TDS	DO
1414	0.0	22.5	6.88	40.83	46.2	NA	NA	1.12
1425	0.5	22.1	6.93	48.88	-111.6	51.6	NA	0.12
1433	1.0	22.3	6.93	49.00	-121.7	20.4	NA	0.11
1441	1.5	22.1	6.93	49.04	-126.8	11.57	NA	0.10
1449	2.0	22.2	6.93	49.49	-129.6	7.51	NA	0.29
1455	Sample Time							

Well ID BC-11								
Date	4/2/2019							
DTW	2.42							
TD	14.74							
Stickup	0.6							
Method	Peristaltic Pump							
Time	Gal	Temp (°C)	pH	Cond (ms)	ORP	Turb	TDS	DO
1413	0.0	21.8	6.63	15.31	35.1	NA	NA	0.33
1422	0.5	20.8	6.58	15.52	-142.0	64.3	NA	0.20
1427	1.0	20.8	6.54	16.70	-135.9	17.3	NA	0.30
1431	1.5	20.8	6.54	16.78	-133.5	4.98	NA	0.39
1436	2.0	20.8	6.53	16.71	-130.9	2.53	NA	0.38
1440	Sample Time							

Well ID BC-12								
Date	4/2/2019							
DTW	2.98							
TD	17.41							
Stickup	Flush							
Method	Peristaltic Pump							
Time	Gal	Temp (°C)	pH	Cond (ms)	ORP	Turb	TDS	DO
1535	0.0	20.8	6.80	2.73	-92.9	NA	NA	0.74
1544	0.5	21.1	6.76	2.53	-116.2	OR	NA	0.82
1551	1.0	21.3	6.83	2.61	-97.1	OR	NA	5.32
1600	1.5	21.2	6.76	2.56	-103.5	11.2	NA	3.47
1607	2.0	21.3	6.77	2.54	-101.5	3.72	NA	3.23
1615	Sample Time							

NA = Not Analyzed

Table 11
Water Quality Parameters
Hero Lands Company, L.L.C. v Chevron U.S.A., Inc., et al.
Stella Field, Plaquemines Parish, Louisiana

Well ID BC-13								
Date	4/3/2019							
DTW	3.25							
TD	17.78							
Stickup	1.14							
Method	Peristaltic Pump							
Time	Gal	Temp (°C)	pH	Cond (ms)	ORP	Turb	TDS	DO
1420	0.0	23.0	6.21	101.8	-84.3	NA	NA	0.45
1431	0.5	22.5	6.41	81.6	-136.7	71.6	NA	0.11
1442	1.0	22.5	6.35	86.6	-137.5	46.4	NA	0.80
1451	1.5	22.5	6.32	88.3	-137.8	24.2	NA	0.24
1501	2.0	22.3	6.31	90.8	-136.3	21.5	NA	0.09
1510	2.5	22.0	6.31	89.8	-135.6	9.01	NA	0.09
1515	Sample Time							

Well ID BC-14								
Date	4/3/2019							
DTW	2.69							
TD	19.4							
Stickup	1.31							
Method	Peristaltic Pump							
Time	Gal	Temp (°C)	pH	Cond (ms)	ORP	Turb	TDS	DO
1615	0.0	21.4	6.65	51.00	-51.1	NA	NA	0.20
1621	0.5	21.3	6.98	13.80	-153.4	47.7	NA	0.18
1630	1.0	21.3	6.92	12.64	-153.5	5.24	NA	0.14
1637	1.5	21.2	6.91	12.41	-153.2	3.75	NA	0.14
1644	2.0	21.2	6.89	12.26	-153.5	4.23	NA	0.27
1654	2.5	20.8	6.89	11.98	-152.9	7.09	NA	0.14
1701	3.0	21.4	6.89	12.08	-152.9	2.20	NA	0.13
1705	Sample Time							

Well ID BC-15								
Date	4/8/2019							
DTW	2.6							
TD	19.1							
Stickup	1.49							
Method	Peristaltic Pump							
Time	Gal	Temp (°C)	pH	Cond (ms)	ORP	Turb	TDS	DO
1617	0.0	23.4	6.70	99.1	18.9	NA	NA	0.56
1624	0.5	22.4	6.66	98.0	-103.6	46.2	NA	0.10
1628	1.0	22.4	6.63	98.8	-109.8	24.2	NA	0.09
1633	1.5	22.1	6.57	98.4	-114.6	20.3	NA	0.08
1639	2.0	22.2	6.54	99.0	-116.8	10.57	NA	0.08
1645	Sample Time							

Table 11
Water Quality Parameters
Hero Lands Company, L.L.C. v Chevron U.S.A., Inc., et al.
Stella Field, Plaquemines Parish, Louisiana

Well ID BC-16								
Date	4/8/2019							
DTW	1.53							
TD	17.98							
Stickup	Flush							
Method	Peristaltic Pump							
Time	Gal	Temp (°C)	pH	Cond (ms)	ORP	Turb	TDS	DO
1438	0.0	23.3	6.61	116.3	-58.6	NA	NA	0.20
1444	0.5	22.8	6.56	124.8	-108.9	37.3	NA	0.09
1449	1.0	23.2	6.55	129.2	-113.5	13.1	NA	0.06
1453	1.5	23.3	6.55	130.6	-115.4	9.13	NA	0.05
1459	2.0	23.1	6.57	131.4	-117.6	9.49	NA	0.06
1504	2.5	23.1	6.54	132.0	-118.2	11.02	NA	0.06
1515	Sample Time							

Well ID BC-17A								
Date	1/29/2019							
DTW	4.1'							
TD	10.61'							
Stickup	1.0'							
Method	Peristaltic Pump							
Time	Gal	Temp (°C)	pH	Cond (µs)	ORP	Turb	TDS	DO
1354	0.0	18.2	6.64	2931	-138	NA	2105	NA
1358	0.5	19.2	6.68	2905	-136	NA	2082	NA
1402	1.0	19.4	6.66	2805	-138	NA	2006	NA
1406	1.5	19.3	6.66	2798	-144	NA	1996	NA
1410	2.0	19.3	6.68	2943	-141	NA	2095	NA
1412	2.5	19.3	6.67	2701	-135	NA	1922	NA
1415	3.0	19.1	6.66	2682	-136	NA	1901	NA
1415	Pump off, no sample taken							
Date	2/15/2019							
DTW	4.35'							
TD	10.61'							
Stickup	0.8'							
Method	Peristaltic Pump							
Time	Gal	Temp (°C)	pH	Cond (µs)	ORP	Turb	TDS	DO
0724	0.0	18.6	6.82	2840	69	NA	NA	NA
0732	0.5	18.7	6.75	2822	-102	10.92	NA	NA
0739	1.0	18.7	6.73	2789	-113	3.50	NA	NA
0746	1.5	18.8	6.72	2743	-113	2.31	NA	NA
0753	2.0	18.9	6.72	2722	-117	1.84	NA	NA
0755	Begin sampling							

Table 11
Water Quality Parameters
Hero Lands Company, L.L.C. v Chevron U.S.A., Inc., et al.
Stella Field, Plaquemines Parish, Louisiana

Well ID BC-17B								
Date	1/29/2019							
DTW	5.37'							
TD	26.13'							
Stickup	1.91'							
Method	Peristaltic Pump							
Time	Gal	Temp (°C)	pH	Cond (µs)	ORP	Turb	TDS	DO
1356	0.0	18.2	6.70	7685	-82	NA	5970	NA
1404	0.5	21.7	6.65	7701	-143	NA	5940	NA
1407	1.0	21.8	6.63	7762	-140	NA	6001	NA
1409	1.5	22.2	6.71	7729	-138	NA	5964	NA
1411	2.0	21.9	6.63	7763	-135	NA	6004	NA
1416	3.0	22.0	6.61	7753	-131	NA	5992	NA
1418	Pump off, no sample taken							
Date	2/15/2019							
DTW	5.44'							
TD	30.70'							
Stickup	1.60'							
Method	Peristaltic Pump							
Time	Gal	Temp (°C)	pH	Cond (ms)	ORP	Turb	TDS	DO
1022	2.0	22.1	7.07	9.975	22	9.14	NA	NA
1029	2.5	22.3	6.81	10.13	-88	3.77	NA	NA
1038	3.0	22.4	6.82	10.04	-105	2.62	NA	NA
1046	3.5	22.3	6.83	9.97	-108	3.18	NA	NA
1054	4.0	22.3	6.84	10.01	-109	3.04	NA	NA
1100	Begin sampling							

Well ID BC-18								
Date	1/29/2019							
DTW	2.34'							
TD	23.56'							
Stickup	1.85'							
Method	Peristaltic Pump							
Time	Gal	Temp (°C)	pH	Cond (µs)	ORP	Turb	TDS	DO
1513	0.0	18.3	6.87	7539	-124	NA	5837	NA
1515	0.5	20.0	6.71	6772	-114	NA	5140	NA
1517	1.0	20.3	6.66	6892	-115	NA	5242	NA
1524	1.5	18.7	6.72	6883	-105	NA	5278	NA
1529	2.0	18.7	6.76	6819	-108	NA	5236	NA
1534	2.5	19.1	6.71	6722	-109	NA	2172	NA
1539	3.0	19.5	6.68	6788	-110	NA	5246	NA
1544	3.5	19.0	6.80	6876	-114	NA	5234	NA
1548	4.0	19.5	6.77	6810	-110	NA	5197	NA
1550	Pump off, no sample taken							
Date	2/14/2019							
DTW	2.27'							
TD	23.55'							
Stickup	1.55'							
Method	Peristaltic Pump							
Time	Gal	Temp (°C)	pH	Cond (µs)	ORP	Turb	TDS	DO
1424	0.0	20.3	6.96	6047	42	NA	NA	NA
1429	0.5	21.6	6.81	6671	-87	17.9	NA	NA
1437	1.0	21.6	6.74	6671	-104	9.20	NA	NA
1443	1.5	21.6	6.70	6686	-101	4.09	NA	NA
1450	2.0	21.8	6.70	6669	-104	3.88	NA	NA
1455	Start Sampling							

Table 11
Water Quality Parameters
Hero Lands Company, L.L.C. v Chevron U.S.A., Inc., et al.
Stella Field, Plaquemines Parish, Louisiana

Well ID BC-19								
Date	1/29/2019							
DTW	2.12'							
TD	25.10'							
Stickup	1.1'							
Method	Peristaltic Pump							
Time	Gal	Temp (°C)	pH	Cond (µs)	ORP	Turb	TDS	DO
1608	0.00	19.4	6.83	2395	-49	NA	1696	NA
1611	0.50	16.8	7.48	2339	-118	NA	1637	NA
1635	0.75	16.9	7.52	2566	-128	NA	1821	NA
1636	Pump off, well went dry, no sample taken							
Date	2/14/2019							
DTW	2.00'							
TD	25.1'							
Stickup	0.9'							
Method	Peristaltic Pump							
Time	Gal	Temp (°C)	pH	Cond (µs)	ORP	Turb	TDS	DO
1336	0.5	23.4	6.89	2152	0.7	79.5	NA	NA
1352	1.0	23.1	7.85	2487	0.86	13.8	NA	NA
13xx	Well went dry							
1540	Collect all samples except rad cube, well went dry							

Well ID BC-20								
Date	1/29/2019							
DTW	1.67'							
TD	28.87'							
Stickup	1.35'							
Method	Peristaltic Pump							
Time	Gal	Temp (°C)	pH	Cond (µs)	ORP	Turb	TDS	DO
1649	0.0	15.1	6.75	1556	-44	NA	1068	NA
1651	0.5	19.6	6.65	1579	-56	NA	1078	NA
1653	1.0	19.7	6.65	1594	-76	NA	1092	NA
1700	1.5	19.5	6.99	1622	-110	NA	1111	NA
1705	2.0	18.1	7.00	1631	-109	NA	1107	NA
1706	Pump off, no sample taken							
Date	2/14/2019							
DTW	1.62							
TD	28.85							
Stickup	1.00							
Method	Peristaltic Pump							
Time	Gal	Temp (°F)	pH	Cond (µs)	ORP	Turb	TDS	DO
1141	0.0	21.0	7.07	1647.0	-26.0	NA	NA	NA
1149	0.5	21.8	6.83	1611.0	-111.0	39.9	NA	NA
1156	1.0	22.2	6.77	1625.0	-116.0	30.5	NA	NA
1204	1.5	22.6	6.73	1619.0	-114.0	24	NA	NA
1212	2.0	22.6	6.71	1622.0	-112.0	21.3	NA	NA
1220	2.5	22.3	6.72	1624.0	-113.0	14.1	NA	NA
1225	Sample Time							

Table 11
Water Quality Parameters
Hero Lands Company, L.L.C. v Chevron U.S.A., Inc., et al.
Stella Field, Plaquemines Parish, Louisiana

Well ID BC-21A								
Date	4/3/2019							
DTW	3.15							
TD	13.1							
Stickup	1.38							
Method	Peristaltic Pump							
Time	Gal	Temp (°C)	pH	Cond (ms)	ORP	Turb	TDS	DO
1235	0.0	20.3	6.71	17.63	-95.3	NA	NA	1.79
1243	0.5	20.1	6.55	16.91	-128.3	16.1	NA	0.28
1253	1.0	20.4	6.53	16.84	-134.2	7.88	NA	0.18
1257	1.5	20.4	6.53	16.85	-135.4	5.30	NA	0.17
1307	2.0	20.3	6.52	16.73	-136.3	3.61	NA	0.25
1315	Sample Time							

Well ID BC-21B								
Date	4/3/2019							
DTW	0.25							
TD	28.78							
Stickup	1.50							
Method	Peristaltic Pump							
Time	Gal	Temp (°C)	pH	Cond (ms)	ORP	Turb	TDS	DO
1029	0.0	19.2	7.10	13.76	-38.4	NA	NA	1.63
1037	0.5	20.3	6.86	18.04	-143.5	9	NA	0.20
1045	1.0	20.4	6.86	17.41	-148.1	9.54	NA	0.17
1051	1.5	20.5	6.86	17.17	-150.0	5.65	NA	0.15
1104	2.0	20.7	6.98	16.98	-151.9	3.09	NA	0.99
1108	2.5	20.6	6.81	16.93	-152.3	6.54	NA	0.18
1115	Sample Time							

Well ID BC-22A								
Date	4/9/2019							
DTW	2.99							
TD	13.64							
Stickup	1.07							
Method	Peristaltic Pump							
Time	Gal	Temp (°C)	pH	Cond (ms)	ORP	Turb	TDS	DO
0755	0.0	19.8	6.46	66.1	101.6	NA	NA	1.22
0804	0.5	19.6	6.71	66.4	-104.8	19.1	NA	0.14
0814	1.0	19.6	6.73	67.5	-18.9	8.01	NA	0.11
0819	1.5	19.6	6.74	67.6	-21.7	5.73	NA	0.10
0827	2.0	19.8	6.74	67.9	-125.2	6.11	NA	0.25
0830	Sample Time							

Well ID BC-22B								
Date	4/9/2019							
DTW	2.39							
TD	29.86							
Stickup	1.86							
Method	Peristaltic Pump							
Time	Gal	Temp (°C)	pH	Cond (ms)	ORP	Turb	TDS	DO
0927	0.0	19.7	7.56	16.56	78.4	NA	NA	1.78
0934	0.5	20.3	7.13	23.45	-117.1	16.8	NA	0.18
0943	1.0	20.4	7.12	23.53	-138.4	6.91	NA	0.14
0947	1.5	20.4	7.12	23.61	-143.1	11.35	NA	0.12
0953	2.0	20.5	7.12	23.76	-145.8	5.49	NA	0.23
1000	Sample Time							

Well ID BC-23								
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NA = Not Analyzed

Table 11
Water Quality Parameters
Hero Lands Company, L.L.C. v Chevron U.S.A., Inc., et al.
Stella Field, Plaquemines Parish, Louisiana

Date	4/9/2019							
DTW	2.7							
TD	15.91							
Stickup	1.09							
Method	Peristaltic Pump							
Time	Gal	Temp (°F)	pH	Cond (ms)	ORP	Turb	TDS	DO
1614	0.0	21.1	6.82	79.1	-11.2	NA	NA	0.55
1626	0.5	20.5	6.82	75.5	-100.2	3.23	NA	0.14
1634	1.0	20.3	6.81	74.5	-110.2	4.61	NA	0.10
1641	1.5	20.4	6.81	74.3	-114.6	7.39	NA	0.09
1647	2.0	20.5	6.80	74.2	-117.0	5.96	NA	0.09
1650	Sample Time							

Well ID	BC-24A							
Date	4/3/2019							
DTW	6.8							
TD	20.91							
Stickup	1.40							
Method	Peristaltic Pump							
Time	Gal	Temp (°C)	pH	Cond (ms)	ORP	Turb	TDS	DO
0715	0.0	16.7	6.68	27.3	-99.6	NA	NA	0.29
0724	0.5	18.9	6.76	28.4	-143.6	35.6	NA	0.26
0735	1.0	19.0	6.76	28.5	-147.4	22.0	NA	0.21
0745	1.5	19.1	6.75	28.6	-149.1	13.5	NA	0.28
0753	2.0	19.1	6.76	28.7	NA	11	NA	0.43
0755	Sample Time							

Well ID	BC-24B							
Date	4/3/2019							
DTW	5.31							
TD	32.45							
Stickup	1.35							
Method	Peristaltic Pump							
Time	Gal	Temp (°C)	pH	Cond (ms)	ORP	Turb	TDS	DO
0845	0.0	18.3	6.96	14.87	-23.0	NA	NA	0.90
0855	0.5	19.7	6.79	22.25	-140.1	12.7	NA	0.25
0903	1.0	19.8	6.78	22.53	-146.2	6.3	NA	0.21
0912	1.5	20.0	6.78	22.73	-149.3	2.15	NA	0.17
0919	2.0	20.0	6.77	22.78	-150.1	1.61	NA	0.34
0925	Sample Time							

Well ID	BC-26							
Date	4/2/2019							
DTW	4.98							
TD	21.38							
Stickup	1.80							
Method	Peristaltic Pump							
Time	Gal	Temp (°C)	pH	Cond (ms)	ORP	Turb	TDS	DO
1235	0.0	21.1	6.44	66.2	-86.2	NA	NA	0.48
1246	0.5	21.2	6.57	49.6	-120.3	22.7	NA	0.17
1252	1.0	21.1	6.58	50.4	-127.9	6.41	NA	0.15
1258	1.5	21.1	6.58	50.3	-131.6	2.52	NA	0.13
1304	2.0	21.0	6.57	51.0	-133.4	5.23	NA	0.13
1310	Sample Time							

Table 11
Water Quality Parameters
Hero Lands Company, L.L.C. v Chevron U.S.A., Inc., et al.
Stella Field, Plaquemines Parish, Louisiana

Well ID BC-27A								
Date	4/2/2019							
DTW	3.53							
TD	21.16							
Stickup	1.64							
Method	Peristaltic Pump							
Time	Gal	Temp (°C)	pH	Cond (ms)	ORP	Turb	TDS	DO
1000	0.0	18.3	6.38	51.50	-75.4	NA	NA	0.60
1010	0.5	19.7	6.49	34.50	-113.0	27	NA	0.30
1016	1.0	19.7	6.45	35.29	-122.2	9.26	NA	0.24
1021	1.5	19.9	6.43	35.73	-126.3	11.9	NA	0.33
1026	2.0	19.8	6.44	36.15	-131.6	5.81	NA	0.40
1030	Begin Sampling							

Well ID BC-27B								
Date	4/2/2019							
DTW	3.15							
TD	29.65							
Stickup	1.16							
Method	Peristaltic Pump							
Time	Gal	Temp (°C)	pH	Cond (ms)	ORP	Turb	TDS	DO
1100	0.0	18.3	7.14	10.49	-91.1	-	NA	2.03
1105	0.5	20.3	6.87	11.36	-147.6	83.3	NA	0.14
1110	1.0	20.5	6.86	11.49	-152.3	24.2	NA	0.13
1115	1.5	20.4	6.85	11.49	-159.4	34.6	NA	0.14
1120	2.0	20.4	6.84	11.54	-155.5	23.6	NA	0.14
1152	Sample Time							

Well ID BC-28A								
Date	4/8/2019							
DTW	1.36							
TD	16.17							
Stickup	1.05							
Method	Peristaltic Pump							
Time	Gal	Temp (°C)	pH	Cond (ms)	ORP	Turb	TDS	DO
1134	0.0	23.9	6.86	43.54	-42.5	NA	NA	1.06
1143	0.5	23.5	6.91	41.08	-107.9	85.8	NA	1.98
1149	1.0	23.5	6.92	40.81	-98.6	9.06	NA	2.96
1158	1.5	24.0	6.97	40.90	-98.7	10.8	NA	3.96
1207	2.0	23.6	7.04	40.75	-99.6	12.3	NA	4.54
1215	Sample Time							

Well ID BC-28B								
Date	4/8/2019							
DTW	0.5							
TD	34.31							
Stickup	1.74							
Method	Peristaltic Pump							
Time	Gal	Temp (°C)	pH	Cond (ms)	ORP	Turb	TDS	DO
1010	0.0	23.7	7.50	6.41	72.5	NA	NA	1.17
1014	0.5	22.8	7.82	6.48	-170.4	OR	NA	0.12
1018	1.0	23.0	7.84	6.42	-175.3	33.7	NA	0.06
1023	1.5	22.5	7.83	6.37	-177.4	20.0	NA	0.06
1027	2.0	22.6	7.82	6.31	-179.9	11.21	NA	0.05
1032	2.5	22.6	7.84	6.32	-182.0	24.3	NA	0.03
1037	3.0	23.1	7.82	6.37	-183.1	3.52	NA	0.16
1045	Sample Time							

NA = Not Analyzed

Table 11
Water Quality Parameters
Hero Lands Company, L.L.C. v Chevron U.S.A., Inc., et al.
Stella Field, Plaquemines Parish, Louisiana

Well ID BC-29A								
Date	2/14/2019							
DTW	3.09							
TD	14.66							
Stickup	1.80							
Method	Peristaltic Pump							
Time	Gal	Temp (°F)	pH	Cond (µs)	ORP	Turb	TDS	DO
0859	0.0	19.0	6.65	8459.0	-2.0	NA	NA	NA
0910	0.5	20.4	6.63	3289.0	-101.0	9.59	NA	NA
0925	1.5	20.3	6.57	3236.0	-101.0	1.65	NA	NA
0930	2.0	20.1	6.59	3255.0	-105.0	1.2	NA	NA
0935	Sample Time							

Well ID BC-29B								
Date	2/14/2019							
DTW	2.9							
TD	29.71							
Stickup	2.00							
Method	Peristaltic Pump							
Time	Gal	Temp (°F)	pH	Cond (ms)	ORP	Turb	TDS	DO
1002	0.0	21.3	6.81	22.4	-58.0	NA	NA	NA
1010	0.5	22.4	6.92	24.6	-131.0	11.4	NA	NA
1017	1.0	22.2	6.93	24.7	-133.0	32.7	NA	NA
1023	1.5	22.3	6.92	24.7	-136.0	23.6	NA	NA
1029	2.0	22.4	6.93	24.7	-129.0	4.47	NA	NA
1035	2.5	22.1	6.95	24.7	-128.0	3.68	NA	NA
1041	3.0	21.8	6.94	24.7	-128.0	3.28	NA	NA
1045	Sample Time							

Well ID MW-1A								
Date	1/20/2020							
DTW	6.06							
TD	22.92							
Stickup	NA							
Method	Peristaltic Pump							
Time	Gal	Temp (°F)	pH	Cond (ms)	ORP	Turb	TDS (ppt)	DO
1239	0.0	53.1	7.72	12.09	-10	NA	10.27	NA
1249	1.0	59.3	7.07	16.21	-36	NA	14.47	NA
1259	2.0	58.0	6.98	16.04	-58	NA	14.32	NA
1304	2.5	58.9	6.94	16.00	-67	11.5	14.29	NA
No Sample taken, development only								
Date	1/21/2020							
DTW	NA							
TD	NA							
Stickup	NA							
Method	Peristaltic Pump							
Time	Gal	Temp (°F)	pH	Cond (ms)	ORP	Turb	TDS (ppt)	DO
0945	0.0	41.9	7.29	16.58	-5	NA	15.11	NA
0950	0.25	50.0	7.06	16.27	-13	NA	14.63	NA
0955	0.5	50.2	7.00	15.86	-32	NA	14.21	NA
1000	0.75	49.8	6.91	15.73	-45	NA	14.09	NA
1005	1.0	50.6	6.91	15.78	-52	NA	14.12	NA
1010	1.25	50.2	6.91	15.62	-57	11.8	13.98	NA
1010	Collect Sample							

NA = Not Analyzed

Table 11
Water Quality Parameters
Hero Lands Company, L.L.C. v Chevron U.S.A., Inc., et al.
Stella Field, Plaquemines Parish, Louisiana

Well ID MW-1B								
Date	1/20/2020							
DTW	6.8							
TD	47.01							
Stickup	NA							
Method	Peristaltic Pump							
Time	Gal	Temp (°F)	pH	Cond (ms)	ORP	Turb	TDS (ppt)	DO
1312	0.0	58.7	6.50	47.88	-37	NA	52.65	NA
1320	1.0	57.6	6.36	62.05	-57	NA	74.54	NA
1330	2.0	57.3	6.39	65.25	-58	NA	79.86	NA
1341	3.0	56.4	6.53	65.71	-57	NA	81.13	NA
1351	4.0	56.6	6.43	67.98	-59	NA	84.62	NA
1357	5.0	56.7	6.38	68.64	-57	8.41	86.41	NA
No Sample taken, development only								
Date	1/21/2020							
Well ID	MW-1B							
DTW	NA							
TD	NA							
Stickup	NA							
Method	Peristaltic Pump							
Time	Gal	Temp (°F)	pH	Cond (ms)	ORP	Turb	TDS (ppt)	DO
1059	0.00	47.9	6.92	67.22	1	NA	85.25	NA
1105	0.25	52.5	6.65	62.94	-25	NA	76.77	NA
1110	0.50	52.7	6.70	64.00	-39	NA	78.56	NA
1115	0.75	54.5	6.50	65.25	-46	NA	80.30	NA
1120	1.00	54.8	6.50	65.99	-51	NA	81.69	NA
1125	1.25	54.9	6.45	67.01	-55	NA	83.22	NA
1130	1.50	54.3	6.46	67.99	-56	14.6	85.06	NA
1130	Collect Sample							
Well ID MW-2A								
Date	7/16/2020							
DTW	6.73							
TD	22.59							
Stickup	NA							
Method	Peristaltic Pump							
Time	Gal	Temp (°F)	pH	Cond (ms)	ORP	Turb	TDS (ppt)	DO
1120	Initial	23.0	6.93	12.90	-61	NA	10.86	NA
1125	0.50	23.0	6.86	13.21	-85	NA	11.16	NA
1130	1.00	22.9	6.84	13.11	-108	NA	11.06	NA
1135	1.50	22.9	6.84	12.99	-129	NA	10.95	NA
1140	2.00	22.9	6.86	12.92	-138	NA	10.88	NA
1150	Sample Time						51.9	

NA = Not Analyzed

Table 11
Water Quality Parameters
Hero Lands Company, L.L.C. v Chevron U.S.A., Inc., et al.
Stella Field, Plaquemines Parish, Louisiana

Well ID MW-2B								
Date	7/16/2020							
DTW	7.22							
TD	46.82							
Stickup	NA							
Method	Peristaltic Pump							
Time	Gal	Temp (°F)	pH	Cond (µs)	ORP	Turb	TDS (ppt)	DO
1320	Initial	23.6	8.20	3762	-130	NA	2784	NA
1325	0.50	23.3	8.07	4157	-182	NA	3105	NA
1330	1.00	23.2	7.96	4499	-187	NA	3388	NA
1335	1.50	23.4	7.93	4554	-178	NA	3434	NA
1340	2.00	23.3	7.89	4576	-183	NA	3452	NA
1345	2.25	23.3	7.86	4603	-182	NA	3474	NA
1350	2.5	23.2	7.87	4616	-178	NA	3481	NA
1355	3.3	23.3	7.87	4620	-169	NA	3490	NA
1400	3.5	23.3	7.84	4627	-175	NA	3496	NA
1405	Sample Time					58.2		

Well ID MW-3A								
Date	7/15/2020							
DTW	5.75							
TD	23.11							
Stickup	NA							
Method	Peristaltic Pump							
Time	Gal	Temp (°F)	pH	Cond (ms)	ORP	Turb	TDS (ppt)	DO
0750	Initial	25.1	6.69	40.46	-121	NA	41.04	NA
0755	0.50	25.2	6.67	43.91	-141	NA	45.33	NA
0800	1.00	25.2	6.67	44.78	-144	NA	46.3	NA
0805	1.50	25.0	6.63	45.41	-146	NA	47.45	NA
0810	2.00	25.1	7.11	45.91	-149	NA	47.7	NA
0820	2.50	25.6	6.70	45.99	-152	NA	47.75	NA
0825	3.00	25.0	6.65	46.12	-149	NA	48.02	NA
0830	3.50	25.0	6.64	46.16	-148	NA	48.04	NA
0835	Sample Time					61.2		

Well ID MW-4A								
Date	7/15/2020							
DTW	4.13							
TD	22.02							
Stickup	NA							
Method	Peristaltic Pump							
Time	Gal	Temp (°F)	pH	Cond (ms)	ORP	Turb	TDS (ppt)	DO
0945	Initial	26.2	6.87	16.41	-144	NA	14.18	NA
0950	0.75	25.1	6.80	16.41	-146	NA	14.29	NA
0955	1.50	24.8	6.78	16.52	-148	NA	14.39	NA
1000	1.75	25.3	6.76	16.58	-147	NA	14.44	NA
1005	2.00	25.1	6.76	16.54	-146	NA	14.42	NA
1010	2.50	25.3	6.75	16.51	-145	NA	14.38	NA
1015	3.00	25.3	6.76	16.48	-146	NA	14.36	NA
1020	3.50	24.7	6.76	16.46	-147	NA	14.33	NA
1030	Sample Time					23.0		

Table 11
Water Quality Parameters
Hero Lands Company, L.L.C. v Chevron U.S.A., Inc., et al.
Stella Field, Plaquemines Parish, Louisiana

Well ID MW-5A								
Date	1/21/2020							
DTW	5.62							
TD	22.13							
Stickup	NA							
Method	Peristaltic Pump							
Time	Gal	Temp (°F)	pH	Cond (ms)	ORP	Turb	TDS (ppt)	DO
1330	0.0	65.7	6.65	34.78	-3	NA	NA	NA
1344	1.5	65.7	6.61	38.12	-59	NA	NA	NA
1355	2.5	65.5	6.60	38.39	-61	NA	NA	NA
1402	3.5	66.0	6.68	37.96	-61	222	NA	NA
1416	5.0	65.0	6.85	38.05	-52	NA	NA	NA
1428	7.0	64.5	6.65	37.82	-59	198	NA	NA
1439	8.0	64.5	6.69	37.84	-58	135	NA	NA
NA	8.5	NA	NA	NA	NA	52	NA	NA
No Sample taken, development only								
Date	1/22/2020							
DTW	NA							
TD	NA							
Stickup	NA							
Method	Peristaltic Pump							
Time	Gal	Temp (°F)	pH	Cond (ms)	ORP	Turb	TDS (ppt)	DO
0810	0.00	51.6	6.92	36.90	79	NA	38.65	NA
0815	0.25	60.7	6.96	39.06	10	NA	41.05	NA
0820	0.50	61.2	6.77	38.50	-32	NA	40.12	NA
0825	0.75	62.1	6.68	38.72	-40	NA	40.6	NA
0830	1.00	62.9	6.66	38.44	-46	NA	40.22	NA
0835	1.25	62.7	6.61	37.95	-50	24.6	39.62	NA
0835	Collect Sample							
Well ID MW-6								
Date	1/20/2020							
DTW	9.78							
TD	23.52							
Stickup	NA							
Method	Peristaltic Pump							
Time	Gal	Temp (°F)	pH	Cond (µs)	ORP	Turb	TDS (ppm)	DO
1459	0.0	57.9	7.28	9548	-46	NA	7931	NA
1507	1.0	64.3	6.83	7390	-55	NA	5957	NA
1510	Well went dry at 1.5 gal							
1520	Restart Pump							
1523	1.75	62.4	6.55	9398	-37	NA	7763	NA
1523	Well went dry at 1.75 gal							
1540	2.0	64.9	6.52	9751	-28	NA	8070	NA
1545	Well went dry at 2 gal							
No Sample taken, development only								

NA = Not Analyzed

Table 11
Water Quality Parameters
Hero Lands Company, L.L.C. v Chevron U.S.A., Inc., et al.
Stella Field, Plaquemines Parish, Louisiana

Well ID MW-6A								
Date	1/21/2020							
DTW	NA							
TD	NA							
Stickup	NA							
Method	Peristaltic Pump							
Time	Gal	Temp (°F)	pH	Cond	ORP	Turb	TDS (ppt)	DO
1509	0.0	54.1	7.38	13.33 (ms)	-50	NA	11.50 (ppt)	NA
1515	0.1	60.1	6.84	10.56	-38	NA	8829 (ppm)	NA
1521	0.2	60.4	6.83	7896 (µs)	-38	NA	6400	NA
1526	0.3	60.0	6.72	7249	-34	NA	5824	NA
1532	0.4	60.5	6.64	7042	-30	NA	5640	NA
1537	0.5	60.0	6.58	7245	-28	NA	5818	NA
1543	0.6	59.9	6.51	7498	-28	NA	6040	NA
1548	0.7	61.5	6.54	7645	-32	NA	6201	NA
1550	Collect Sample							

Well ID MW-7A									
Date	7/16/2020								
DTW	4.03								
TD	19.8								
Stickup	NA								
Method	Peristaltic Pump								
Time	Gal	Temp (°F)	pH	Cond (µs)	ORP	Turb	TDS (ppt)	DO	
0820	Initial	24.4	6.82	4159	7	NA	3099	NA	
0825	0.75	23.4	6.91	4481	-91	NA	3373	NA	
0830	1.25	23.4	6.91	4709	-117	NA	3563	NA	
0835	1.75	23.5	6.93	5035	-125	NA	3833	NA	
0840	2.00	23.6	6.92	4918	-127	NA	3734	NA	
0845	2.50	23.5	6.93	4931	-125	NA	3745	NA	
0850	3.00	23.9	6.93	4920	-123	NA	3734	NA	
0855	3.25	23.8	6.92	5022	-123	NA	3823	NA	
0900	Sample Time					9.61			

Table 11
Water Quality Parameters
Hero Lands Company, L.L.C. v Chevron U.S.A., Inc., et al.
Stella Field, Plaquemines Parish, Louisiana

Well ID MW-8B								
Date	1/20/2020							
DTW	5.23							
TD	53.9							
Stickup	NA							
Method	Peristaltic Pump							
Time	Gal	Temp (°F)	pH	Cond	ORP	Turb	TDS	DO
1023	0.0	64.5	5.95	8835 µs	185	NA	7358 ppm	NA
1033	1.0	64.0	6.48	19.27 ms	-46	NA	17.98 ppt	NA
1043	2.0	65.6	6.50	19.79	-55	NA	18.29	NA
1053	3.0	65.8	6.60	19.88	-65	NA	18.43	NA
1103	4.0	65.2	6.64	19.87	-67	20.8	18.43	NA
1116	5.0	64.6	6.93	20.10	-71	NA	18.67	NA
1126	6.0	64.2	6.62	19.94	-73	19.2	18.51	NA
No Sample taken, development only								
Date	1/21/2020							
DTW	NA							
TD	NA							
Stickup	NA							
Method	Peristaltic Pump							
Time	Gal	Temp (°F)	pH	Cond (ms)	ORP	Turb	TDS (ppt)	DO
0802	0.0	38.6	7.72	19.77	83	NA	18.79	NA
0812	0.5	54.1	7.27	19.93	69	NA	18.75	NA
0825	1.0	55.1	6.89	19.65	-29	NA	18.21	NA
0830	1.25	57.2	6.79	19.41	-40	NA	18.57	NA
0835	1.5	58.3	6.74	20.09	-47	NA	18.68	NA
0840	2.0	58.0	6.73	19.95	-50	24.9	18.58	NA
0845	Collect Sample							
Well ID MW-9B								
Date	7/15/2020							
DTW	6.54							
TD	43.22							
Stickup	NA							
Method	Peristaltic Pump							
Time	Gal	Temp (°F)	pH	Cond (µs)	ORP	Turb	TDS (ppm)	DO
1245	Initial	24.4	7.96	4270.00	-69	NA	3193	NA
1250	0.50	23.4	7.90	4363.00	-168	NA	3276	NA
1255	1.00	23.3	7.87	4338.00	-180	NA	3259	NA
1300	1.50	23.4	7.85	4334.00	-176	NA	3255	NA
1305	2.00	23.4	7.84	4333.00	-184	NA	3252	NA
1310	2.50	23.5	7.85	4333.00	-174	NA	3251	NA
1315	Sample Time					11.7		

Table 14
Slug Test Results
Hero Lands Company, L.L.C. vs. Chevron U.S.A. Inc. et al
Stella Oil Gas Field
Plaquemines Parish, Louisiana

Well ID	Type	Solution	Saturated Aquifer Thickness, b (ft)	Confining head above the aquifer, Hc (ft)	Slug	Cooper Method		Hvorslev Method	Average Hydraulic Conductivity, K (cm/sec)	Estimated Well Yield, Q (gpm)	Estimated Well Yield, Q (gpd)
						Transmissivity, T, (ft ² /day)	Hydraulic Conductivity, K (ft/day)	Hydraulic Conductivity, K (ft/day)			
Shallow Zone (4-24')											
ICON Wells											
BC-1 4-14'	Confined Fully Penetrating	Cooper et al. (1967)	4	6.23	1	9.247	2.312				
					2	9.682	2.421				
					3	9.406	2.352				
					BC-1 Average:			9.445	2.361		0.00083
BC-9 8-18'	Confined Partially Penetrating	Hvorslev (1951)	24.75	2.35	1			1.075			
					2			1.015			
					3			1.11			
					BC-9 Average:					1.067	0.00038
BC-14 9-19'	Confined Fully Penetrating	Cooper et al. (1967)	7.45	9.02	1	8.05	1.081				
					2	5.393	0.724				
					3	5.011	0.673				
					BC-14 Average:			6.15	0.826		0.00029
ERM Wells											
MW-1A 10-20'	Confined Partially Penetrating	Hvorslev (1951)	20.4	6.87	1 In			0.6779			
					2 In			0.6748			
					3 In			0.622			
					1 Out			0.7912			
					2 Out			0.7943			
					3 Out			0.8043			
					MW-1A Average:					0.727	0.00026
MW-5A 10-20'	Confined Partially Penetrating	Hvorslev (1951)	20.4	7.15	1 In			0.9496			
					2 In			0.4608			
					3 In			0.5027			
					1 Out			0.8139			
					2 Out			0.6664			
					3 Out			0.6719			
					MW-5A Average:					0.678	0.00024
MW-6A 14-24'	Confined Fully Penetrating	Cooper et al. (1967)	4.1	10.06	1 In	1.082	0.264				
					2 In	0.806	0.197				
					3 In	0.9265	0.226				
					1 Out	0.696	0.170				
					2 Out	0.6766	0.165				
					3 Out	0.6768	0.165				
					MW-6A Average:			0.81	0.229		0.00008
Geometric Mean						3.61	0.76	0.81	0.00028	0.163	234

Table 14
Slug Test Results
Hero Lands Company, L.L.C. vs. Chevron U.S.A. Inc. et al
Stella Oil Gas Field
Plaquemines Parish, Louisiana

Well ID	Type	Solution	Saturated Aquifer Thickness, b (ft)	Confining head above the aquifer, Hc (ft)	Slug	Cooper Method		Hvorslev Method	Average Hydraulic Conductivity, K (cm/sec)	Estimated Well Yield, Q (gpm)	Estimated Well Yield, Q (gpd)
						Transmissivity, T, (ft ² /day)	Hydraulic Conductivity, K (ft/day)	Hydraulic Conductivity, K (ft/day)			
Deep Zone (20-51')											
ICON Wells											
BC-3B 20-30'	Confined Partially Penetrating	Hvorslev (1951)	16.7	21.53				3.337			
								3.386			
								3.407			
BC-3B Average:								3.377	0.00119	3.382	4870
BC-7B 24-34'	Confined Partially Penetrating	Hvorslev (1951)	14	23.36				1.318			
								1.475			
								1.322			
BC-7B Average:								1.372	0.00048	1.332	1917
BC-8B 22-32'	Confined Partially Penetrating	Hvorslev (1951)	18	24.23				5.013			
								4.575			
								5.004			
BC-8B Average:								4.864	0.00172	5.764	8301
BC-22B 23-28'	Confined Partially Penetrating	Hvorslev (1951)	14.4	22.94				1.607			
								1.583			
								1.664			
BC-22B Average:								1.618	0.00057	1.568	2258
BC-28B 23-33'	Confined Partially Penetrating	Hvorslev (1951)	21.7	22.67				1.138			
								1.005			
								0.9977			
BC-28B Average:								1.047	0.00037	1.513	2179
ERM Wells											
MW-1B 38-48'	Confined Partially Penetrating	Hvorslev (1951)	17.4	6.27		1 In		1.004			
						2 In		0.9689			
						3 In		0.8902			
						1 Out		1.016			
						2 Out		1.024			
						3 Out		0.9784			
MW-1B Average:								0.980	0.00035	0.320	460
MW-8B 41-51'	Confined Partially Penetrating	Hvorslev (1951)	34.7	14.37		1 In		0.1669			
						2 In		0.1626			
						3 In		0.1603			
						1 Out		0.1498			
						2 Out		0.1566			
						3 Out		0.1628			
MW-8B Average:								0.160	0.00006	0.256	369
Geometric mean:								1.29	0.00046	1.26	1814

Notes:

Solutions were chosen based on guidance from RECAP Appendix F.

Estimated well yield based on the following equation from RECAP Appendix F:

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

For wells where the bottom of the screen is within the aquifer and soil type below the screen is unknown, 10 ft is added to the aquifer thickness, b

Table 15
Water Level Elevation Data
Hero Lands Company, L.L.C. v Chevron U.S.A., Inc., et al.
Stella Field, Plaquemines Parish, Louisiana

Well ID	Screened Interval	Screen Length	Top of Casing Elevation	Total Depth	Mid Screen	Mid Screen Elevation	5/7/2019					7/29/2020				
							DTW	TDS	Density	Water Elevation	EFWH	DTW	TDS	Density	Water Elevation	EFWH
	ft bgs	ft	ft	ft btoc	ft bgs	ft	ft btoc	mg/L	kg/m ³	ft	ft	ft btoc	mg/L	kg/m ³	ft	ft
Very Deep Zone																
BC-2D	76-86	10	1.94	80.77	81	-73.83	0	8380	1,004.567	1.94	2.42	0.2	8380	1,004.567	1.74	2.22
BC-4C	76-86	10	-0.55	86.75	81	-82.3	0	16200	1,010.484	-0.55	0.46	0	16200	1,010.484	-0.55	0.46

Notes:

All elevation data are referenced to NAVD '88 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.
 NM - not measured.
 NA - not analyzed
 -: No data calculated

Table 16
Soil Remediation Cost Estimate (Soil Removal)

Hero Lands Company, L.L.C. vs. Chevron U.S.A. Inc. et al.
Stella Oil and Gas Field
Plaquemines Parish, Louisiana

<u>Cost Basis</u>	<u>Unit</u>	<u>Value</u>	<u>Basis</u>
Soil removal Area (Northwest, Southeast, and Southwest)	Acre	2.65	ERM Report (Sections 8.3 and 10.1)
Soil removal Volume (Northwest, Southeast, and Southwest)	cubic yards	8,600	ERM Report (Sections 8.3 and 10.1)
Soil disposal quantity	ton	10,320	Conversion (cu yds * 1.2) - Diversified Estimate
Soil backfill quantity	cubic yards	11,180	Conversion (inplace CY * 1.3) - Diversified Estimate
Time to Complete (Excavation, trucking and disposal)	days	42	Diversified Estimate
Time to Complete (Site restoration)	days	19	Diversified Estimate

<u>Permitting</u>	<u>Unit Cost</u>	<u>Units</u>	<u>Quantity</u>	<u>Cost</u>	<u>Cost Basis</u>
Permit Applications (Coastal Zone, COE, Levee Permits)	\$10,000	unit	1	\$10,000	ERM Estimate
<i>Permitting Subtotal</i>				<i>\$10,000</i>	
<u>Offsite Disposal</u>	<u>Unit Cost</u>	<u>Units</u>	<u>Quantity</u>	<u>Cost</u>	<u>Cost Basis</u>
Contractor mobilization (includes pre-job deliverables)	\$7,338	unit	1	\$7,338	Diversified Estimate
Remediation/Loading/Trucking/Disposal	\$944,649	unit	1	\$944,649	Diversified Estimate
Site Restoration	\$250,652	unit	1	\$250,652	Diversified Estimate
Contractor demobilization	\$5,018	unit	1	\$5,018	Diversified Estimate
ERM Oversight (Labor and Expenses)	\$1,500	day	63	\$94,500	ERM Estimate
Sampling	\$10,000	unit	1	\$10,000	ERM Estimate
<i>Offsite Disposal Subtotal</i>				<i>\$1,312,157</i>	
<u>Project Management and Reporting</u>	<u>Unit Cost</u>	<u>Units</u>	<u>Quantity</u>	<u>Cost</u>	<u>Cost Basis</u>
Project Management	\$0	unit	1	\$0	Included in Table 17 - Soil treatment
Data Evaluation and Reporting	\$0	unit	1	\$0	Included in Table 17 - Soil treatment
<i>Onsite Disposal Operation and Maintenance Subtotal</i>				<i>\$0</i>	
Total Cost				\$1,322,157	

Table 17
Soil Remediation Cost Estimate (Soil Treatment)

Hero Lands Company, L.L.C. vs. Chevron U.S.A. Inc. et al.
Stella Oil and Gas Field
Plaquemines Parish, Louisiana

<u>Cost Basis</u>	<u>Unit</u>	<u>Value</u>	<u>Basis</u>
Soil Treatment Area	Acre	16	ERM Report (Sections 8.3 and 10.1)
Soil Treatment Depth	feet	2	ERM Report (Sections 8.3 and 10.1)
Soil disposal quantity	ton	2	Conversion (cu yds * 1.2) - Diversified Estimate
Soil backfill quantity	cubic yards	3	Conversion (inplace CY * 1.3) - Diversified Estimate
Time to Complete (Remediation, blending and backfill)	days	128	Diversified Estimate

<u>Permitting</u>	<u>Unit Cost</u>	<u>Units</u>	<u>Quantity</u>	<u>Cost</u>	<u>Cost Basis</u>
Permit Applications (Coastal Zone, COE, Levee Permits)	\$0	unit	1	\$0	Included in Table 16 - Soil removal
<i>Permitting Subtotal</i>				<i>\$0</i>	
<u>Onsite Treatment</u>	<u>Unit Cost</u>	<u>Units</u>	<u>Quantity</u>	<u>Cost</u>	<u>Cost Basis</u>
Contractor mobilization (includes pre-job deliverables)	\$5,980	unit	1	\$5,980	Diversified Estimate
Remediation/blending/backfill	\$611,120	unit	1	\$611,120	Diversified Estimate
Contractor demobilization	\$3,740	unit	1	\$3,740	Diversified Estimate
ERM Oversight (Labor and Expenses)	\$1,500	unit	130	\$195,000	ERM Estimate
Sampling	\$25,000	unit	1	\$25,000	ERM Estimate
<i>Onsite Treatment Capital Costs Subtotal</i>				<i>\$840,840</i>	
<u>Project Management and Reporting</u>	<u>Unit Cost</u>	<u>Units</u>	<u>Quantity</u>	<u>Cost</u>	<u>Cost Basis</u>
Project Management	\$5,000	unit	1	\$5,000	ERM Estimate
Data Evaluation and Reporting	\$10,000	unit	1	\$10,000	ERM Estimate
<i>Onsite Treatment Operation and Maintenance Subtotal</i>				<i>\$15,000</i>	
Total Cost				\$855,840	

Table 18
Water Well Alternative Cost Estimate

Hero Lands Company, L.L.C. vs. Chevron U.S.A Inc. et al.
Stella Oil and Gas Field
Plaquemines Parish, Louisiana

<u>Well and Water Treatment System Purchase & Install</u>	<u>Cost</u>	<u>Unit</u>	<u># Units</u>	<u>Total</u>	<u>Cost Basis</u>
Install 250' to 300' water well, 10 GPM pump & tank -\$5000 to 150' (\$14/ft) beyond 150'	\$7,000	Lump	1	\$7,700	Water Well Professionals
610 gallon water storage tank including delivery	\$500	Lump	2	\$1,100	Plastic-Mart
Piping, electrical controls, and timer for pump	\$2,000	Lump	1	\$2,000	ERM Estimate
ERM Oversight & Project Management	\$5,000	Lump	1	\$5,000	ERM Estimate
Subtotal				\$15,800	
 <u>Operation and Maintenance Costs</u>					
Electricity - assume \$10 per month	\$120	Year	30	\$3,600	Clear Water Pump and Well & ERM Estimate
Equipment replacement & maintenance (pumps & filters) Assume pump replacement every 10 years	\$1,000	Lump	3	<u>\$3,000</u>	Clear Water Pump and Well & ERM Estimate
Subtotal				\$6,600	
 <u>ERM Project Management</u>					
Project management	\$15,000	Lump	1	<u>\$15,000</u>	ERM Estimate
Subtotal				\$15,000	
 <u>Contingency</u>					
10%		%		<u>\$3,740</u>	ERM Estimate
Subtotal				\$3,740	
			Grand Total	\$41,140	

Table 19
Present Value Analysis of ERM's Cattle Water Well Remedy
Hero Lands Company, L.L.C. vs. Chevron U.S.A. Inc. et al.
Stella Oil and Gas Field
Plaquemines Parish, Louisiana

Capital Costs

<u>Time (years)</u>	<u>Annual Cost</u>	<u>Interest Rate</u>	<u>Amount</u>	
0	\$15,800	0.0575	<u>\$15,800</u>	Well & Equipment Install & ERM Oversight Costs - 1 Well
Totals	\$15,800		\$15,800	

Water Well Operation and Maintenance & Project Management Costs

<u>Time (years)</u>	<u>Annual Cost</u>	<u>Interest Rate</u>	<u>Annual Amount</u>	
1	\$845	0.0575	\$799	Annual O&M Cost
2	\$845	0.0575	\$756	
3	\$845	0.0575	\$715	
4	\$845	0.0575	\$676	
5	\$845	0.0575	\$639	
6	\$845	0.0575	\$604	
7	\$845	0.0575	\$571	
8	\$845	0.0575	\$540	
9	\$845	0.0575	\$511	
10	\$845	0.0575	\$483	
11	\$845	0.0575	\$457	
12	\$845	0.0575	\$432	
13	\$845	0.0575	\$409	
14	\$845	0.0575	\$386	
15	\$845	0.0575	\$365	
16	\$845	0.0575	\$345	
17	\$845	0.0575	\$327	
18	\$845	0.0575	\$309	
19	\$845	0.0575	\$292	
20	\$845	0.0575	\$276	
21	\$845	0.0575	\$261	
22	\$845	0.0575	\$247	
23	\$845	0.0575	\$234	
24	\$845	0.0575	\$221	
25	\$845	0.0575	\$209	
26	\$845	0.0575	\$197	
27	\$845	0.0575	\$187	
28	\$845	0.0575	\$177	
29	\$845	0.0575	\$167	
30	\$845	0.0575	<u>\$158</u>	

Present Value O&M Cost **\$11,949**

Water Well Remedy Total Cost = Capital Costs Plus 30 Years of Annual O&M

\$27,749

Notes:

Present value equation from A Guide to Developing and Documenting Cost Estimates During the Feasibility Study (EPA 540-R-00-002, July 2000).

2020 5.75% discount rate from: <http://www.ofi.state.la.us/Legal%20Judicial%20Rate.htm>

Table 20
Public Supply Alternative Cost Estimate
Hero Lands Company, L.L.C. vs. Chevron U.S.A Inc. et al.
Stella Oil and Gas Field
Plaquemines Parish, Louisiana

<u>Tap into Belle Chase Public Supply System</u>	<u>Cost</u>	<u>Unit</u>	<u># Units</u>	<u>Total</u>	<u>Cost Basis</u>
Install 3/4" water meter along LA-23 and across 4-Lane Highway with Railroad	\$700	lump	1	\$770	Tapping Fees as per Ordinance Sec 22-9 Plastic-Mart ERM Estimate ERM Estimate
610 Water storage tank including delivery	\$500	lump	2	\$1,100	
Piping, electrical controls, and timer for pump	\$2,000	lump	1	\$2,000	
ERM Oversight & Project Management	\$5,000	lump	1	<u>\$5,000</u>	
Subtotal				\$8,870	
 <u>Operation and Maintenance Costs</u>					
Commercial water rates 0-4,000 gallons - \$27.14 (\$4.73/1,000 gallons up to 16,000 gallons) Assume 20,000 gallons /month or 240,000 gallons per year	\$103	month	360	<u>\$40,788</u>	Plaquemines Parish Water Works FAQ
Subtotal				\$40,788	
 <u>ERM Oversight & Project Management</u>					
Project management	\$15,000	Lump	1	<u>\$15,000</u>	ERM Estimate
Subtotal				\$15,000	
 <u>Contingency</u>					
10%		%		<u>\$6,466</u>	ERM Estimate
Subtotal				\$6,466	
Grand Total				\$133,378	

Table 21
Net Present Value of Public Water Supply Alternative
Hero Lands Company, L.L.C. vs. Chevron U.S.A. Inc. et al.
Stella Oil & Gas Field Plaquemines Parish, Louisiana

Capital Costs

<u>Time (years)</u>	<u>Annual Cost</u>	<u>Interest Rate</u>	<u>Amount</u>	
0	\$8,870	0.0575	<u>\$8,870</u>	Connect to public supply, tank, etc.
Totals	\$8,870		\$8,870	

Treatment System Operation and Maintenance and Disposal Costs

<u>Time (years)</u>	<u>Annual Cost</u>	<u>Interest Rate</u>	<u>Annual Amount</u>	
1	\$4,446	0.0575	\$4,204	Annual O&M Cost
2	\$4,446	0.0575	\$3,976	
3	\$4,446	0.0575	\$3,759	
4	\$4,446	0.0575	\$3,555	
5	\$4,446	0.0575	\$3,362	
6	\$4,446	0.0575	\$3,179	
7	\$4,446	0.0575	\$3,006	
8	\$4,446	0.0575	\$2,843	
9	\$4,446	0.0575	\$2,688	
10	\$4,446	0.0575	\$2,542	
11	\$4,446	0.0575	\$2,404	
12	\$4,446	0.0575	\$2,273	
13	\$4,446	0.0575	\$2,149	
14	\$4,446	0.0575	\$2,033	
15	\$4,446	0.0575	\$1,922	
16	\$4,446	0.0575	\$1,818	
17	\$4,446	0.0575	\$1,719	
18	\$4,446	0.0575	\$1,625	
19	\$4,446	0.0575	\$1,537	
20	\$4,446	0.0575	\$1,453	
21	\$4,446	0.0575	\$1,374	
22	\$4,446	0.0575	\$1,300	
23	\$4,446	0.0575	\$1,229	
24	\$4,446	0.0575	\$1,162	
25	\$4,446	0.0575	\$1,099	
26	\$4,446	0.0575	\$1,039	
27	\$4,446	0.0575	\$983	
28	\$4,446	0.0575	\$929	
29	\$4,446	0.0575	\$879	
30	\$4,446	0.0575	<u>\$831</u>	
Present Value O&M Cost			\$62,871	

MP&A Remedy Total Cost = Capital Costs Plus 30 Years of Annual O&M & Disposal

\$71,741

Notes:

Present value equation from A Guide to Developing and Documenting Cost Estimates During the Feasibility Study (EPA 540-R-00-002, July 2000).

2020 5.75% discount rate from: <http://www.ofi.state.la.us/Legal%20Judicial%20Rate.htm>

Table 21
Groundwater Monitoring Cost Estimate
Hero Lands Company, L.L.C. vs. Chevron U.S.A. Inc. et al
Stella Oil and Gas Field
Plaquemines Parish, Louisiana

<u>Monitoring Well Sampling - 6 B Zone Wells</u>	<u>Cost</u>	<u>Unit</u>	<u>Quantity</u>	<u>Quarters</u>	<u>Total</u>	<u>Cost Basis</u>	
ERM 2-man field crew, truck, and sampling equipment	\$2,500	day	2	12	\$60,000	Assume sample 3 wells per day & mob/demob Pace unit cost MP&A Estimate	
Lab Analysis - Chloride & Barium	\$30	Sample	6	12	\$2,160		
Purge water handling & disposal	\$2,000	Sample	1	3	<u>\$6,000</u>		
Subtotal					\$68,160		
<u>Monitoring Well Decommissioning (after 3 years)</u>	<u>Cost</u>	<u>Unit</u>	<u>Quantity</u>	<u>Years</u>	<u>Total</u>	<u>Cost Basis</u>	
Drill Rig Mobilization/Demobilization	\$1,500	Lump	1	1	\$1,000	WHE & ERM Estimate WHE & ERM Estimate WHE & ERM Estimate ERM Estimate - includes mob-debmob	
Plug & Abandon ERM monitoring wells	\$2,000	day	3	1	\$6,000		
Per Diem	\$250.00	day	2	1	\$500		
ERM Oversight	\$1,500	day	3.5	1	<u>\$5,250</u>		
Subtotal					\$12,750		
<u>Project Management and Reporting</u>	<u>Cost</u>	<u>Unit</u>	<u>Quantity</u>	<u>Years</u>	<u>Total</u>	<u>Cost Basis</u>	
Project Management	\$5,000	Year	1	3	\$15,000	MP&A Estimate MP&A Estimate	
Data Evaluation and Reporting	\$15,000	Year	1	3	<u>\$45,000</u>		
Subtotal					\$60,000		
					Total	\$140,910	

Table 23
Net Present Value of ICON's Offsite Disposal Groundwater Remedy
Hero Lands Company, L.L.C. vs. Chevron U.S.A. Inc. et al.
Stella Oil & Gas Field, Plaquemines Parish, Louisiana

Capital Costs

<u>Time (years)</u>	<u>Annual Cost</u>	<u>Interest Rate</u>	<u>Amount</u>	
0	\$4,438,741	0.0575	\$4,438,741	Wells & Equipment Purchase & Installation Costs - ICON's proposed 421 recovery wells & RO System
		Subtotal	\$4,438,741	

ICON A Zone

AOI 1 - Ground Water Recovery System Operation and Maintenance & Transportation & Disposal Costs

<u>Time (years)</u>	<u>Annual Cost</u>	<u>Interest Rate</u>	<u>Annual Cost</u>	
1	\$804,073	0.0575	\$760,353	Annual O&M Cost based upon ICON's annual cost for 46 recovery wells 145,951,714 Gallons recovered groundwater
2	\$804,073	0.0575	\$719,010	
3	\$804,073	0.0575	\$679,915	
4	\$804,073	0.0575	\$642,945	
5	\$804,073	0.0575	\$607,986	
6	\$804,073	0.0575	\$574,928	
7	\$804,073	0.0575	\$543,667	
8	\$804,073	0.0575	\$514,106	
9	\$804,073	0.0575	\$486,152	
10	\$804,073	0.0575	\$459,718	
11	\$804,073	0.0575	\$434,722	
12	\$804,073	0.0575	\$411,085	
13	\$804,073	0.0575	\$388,732	
14	\$804,073	0.0575	\$367,596	
15	\$804,073	0.0575	\$347,608	
16	\$804,073	0.0575	\$328,708	
17	\$804,073	0.0575	\$310,835	
18	\$804,073	0.0575	\$293,933	
19	\$804,073	0.0575	\$277,951	
20	\$804,073	0.0575	\$262,838	
20.1	\$804,073	0.0575	\$261,373	
		Subtotal	\$9,674,161	

AOI 2 - Ground Water Recovery System Operation and Maintenance & Transportation & Disposal Costs

<u>Time (years)</u>	<u>Annual Cost</u>	<u>Interest Rate</u>	<u>Annual Cost</u>	
1	\$358,947	0.0575	\$339,429	Annual O&M Cost based upon ICON's annual cost for 25 recovery wells 28,632,596 Gallons recovered groundwater
2	\$358,947	0.0575	\$320,973	
3	\$358,947	0.0575	\$303,521	
4	\$358,947	0.0575	\$287,018	
5	\$358,947	0.0575	\$271,411	
6	\$358,947	0.0575	\$256,654	
7	\$358,947	0.0575	\$242,699	
8	\$358,947	0.0575	\$229,502	
9	\$358,947	0.0575	\$217,023	
9.5	\$358,947	0.0575	\$211,041	
		Subtotal	\$2,679,271	

Table 23
Net Present Value of ICON's Offsite Disposal Groundwater Remedy
Hero Lands Company, L.L.C. vs. Chevron U.S.A. Inc. et al.
Stella Oil & Gas Field, Plaquemines Parish, Louisiana

AOI 3 - Ground Water Recovery System Operation and Maintenance & Transportation & Disposal Costs

<u>Time (years)</u>	<u>Annual Cost</u>	<u>Interest Rate</u>	<u>Annual Cost</u>		
1	\$2,455,768	0.0575	\$2,322,239	Annual O&M Cost based upon ICON's annual cost for 152 recovery wells 353,733,979	Gallons recovered groundwater
2	\$2,455,768	0.0575	\$2,195,971		
3	\$2,455,768	0.0575	\$2,076,568		
4	\$2,455,768	0.0575	\$1,963,658		
5	\$2,455,768	0.0575	\$1,856,887		
6	\$2,455,768	0.0575	\$1,755,921		
7	\$2,455,768	0.0575	\$1,660,446		
8	\$2,455,768	0.0575	\$1,570,161		
9	\$2,455,768	0.0575	\$1,484,786		
10	\$2,455,768	0.0575	\$1,404,053		
11	\$2,455,768	0.0575	\$1,327,710		
12	\$2,455,768	0.0575	\$1,255,518		
13	\$2,455,768	0.0575	\$1,187,251		
14	\$2,455,768	0.0575	\$1,122,696		
15	\$2,455,768	0.0575	\$1,061,651		
15.8	\$2,455,768	0.0575	\$1,015,214		
Subtotal			\$25,260,730		

AOI 4 - Ground Water Recovery System Operation and Maintenance & Transportation & Disposal Costs

<u>Time (years)</u>	<u>Annual Cost</u>	<u>Interest Rate</u>	<u>Annual Cost</u>		
1	\$2,349,323	0.0575	\$2,221,582	Annual O&M Cost based upon ICON's annual cost for 193 recovery wells 353,733,979	Gallons recovered groundwater
2	\$2,349,323	0.0575	\$2,100,787		
3	\$2,349,323	0.0575	\$1,986,560		
4	\$2,349,323	0.0575	\$1,878,544		
5	\$2,349,323	0.0575	\$1,776,401		
6	\$2,349,323	0.0575	\$1,679,812		
7	\$2,349,323	0.0575	\$1,588,474		
8	\$2,349,323	0.0575	\$1,502,103		
8.4	\$2,349,323	0.0575	\$1,468,885		
Subtotal			\$16,203,148		

ICON B Zone

Ground Water Recovery System Operation and Maintenance & Transportation & Disposal Costs

<u>Time (years)</u>	<u>Annual Cost</u>	<u>Interest Rate</u>	<u>Annual Cost</u>		
1	\$1,282,459	0.0575	\$1,212,727	Annual O&M Cost based upon ICON's annual cost for 5 recovery wells 61,287,203	Gallons recovered groundwater
2	\$1,282,459	0.0575	\$1,146,787		
3	\$1,282,459	0.0575	\$1,084,432		
4	\$1,282,459	0.0575	\$1,025,467		
4.5	\$1,282,459	0.0575	\$997,199		
Subtotal			\$5,466,611		

Table 23
Net Present Value of ICON's Offsite Disposal Groundwater Remedy
Hero Lands Company, L.L.C. vs. Chevron U.S.A. Inc. et al.
Stella Oil & Gas Field, Plaquemines Parish, Louisiana

RO System - Operation and Maintenance Costs

<u>Time (years)</u>	<u>Annual Cost</u>	<u>Interest Rate</u>	<u>Annual Cost</u>	
1	\$69,756	0.0575	\$65,963	Operate RO System for 20.1 years
2	\$69,756	0.0575	\$62,376	
3	\$69,756	0.0575	\$58,984	
4	\$69,756	0.0575	\$55,777	
5	\$69,756	0.0575	\$52,744	
6	\$69,756	0.0575	\$49,877	
7	\$69,756	0.0575	\$47,165	
8	\$69,756	0.0575	\$44,600	
9	\$69,756	0.0575	\$42,175	
10	\$69,756	0.0575	\$39,882	
11	\$69,756	0.0575	\$37,713	
12	\$69,756	0.0575	\$35,663	
13	\$69,756	0.0575	\$33,724	
14	\$69,756	0.0575	\$31,890	
15	\$69,756	0.0575	\$30,156	
16	\$69,756	0.0575	\$28,516	
17	\$69,756	0.0575	\$26,966	
18	\$69,756	0.0575	\$25,500	
19	\$69,756	0.0575	\$24,113	
20	\$69,756	0.0575	\$22,802	
20.1	\$69,756	0.0575	\$22,675	
		Subtotal	\$839,259.48	

Grand Total of Equip, Well Install, & O&M Costs

\$64,561,922	Total Water Volume =	943,339,471
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Notes:

Present value equation from A Guide to Developing and Documenting Cost Estimates During the Feasibility Study (EPA 540-R-00-002, July 2000).
 2020 5.75% discount rate from: <http://www.ofi.state.la.us/Legal%20Judicial%20Rate.htm>
 ICON costs from July 12, 2019 Expert Report and Restoration Plan for the Landowners by Gregory W. Miller and Jason S. Sills

Table 24

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