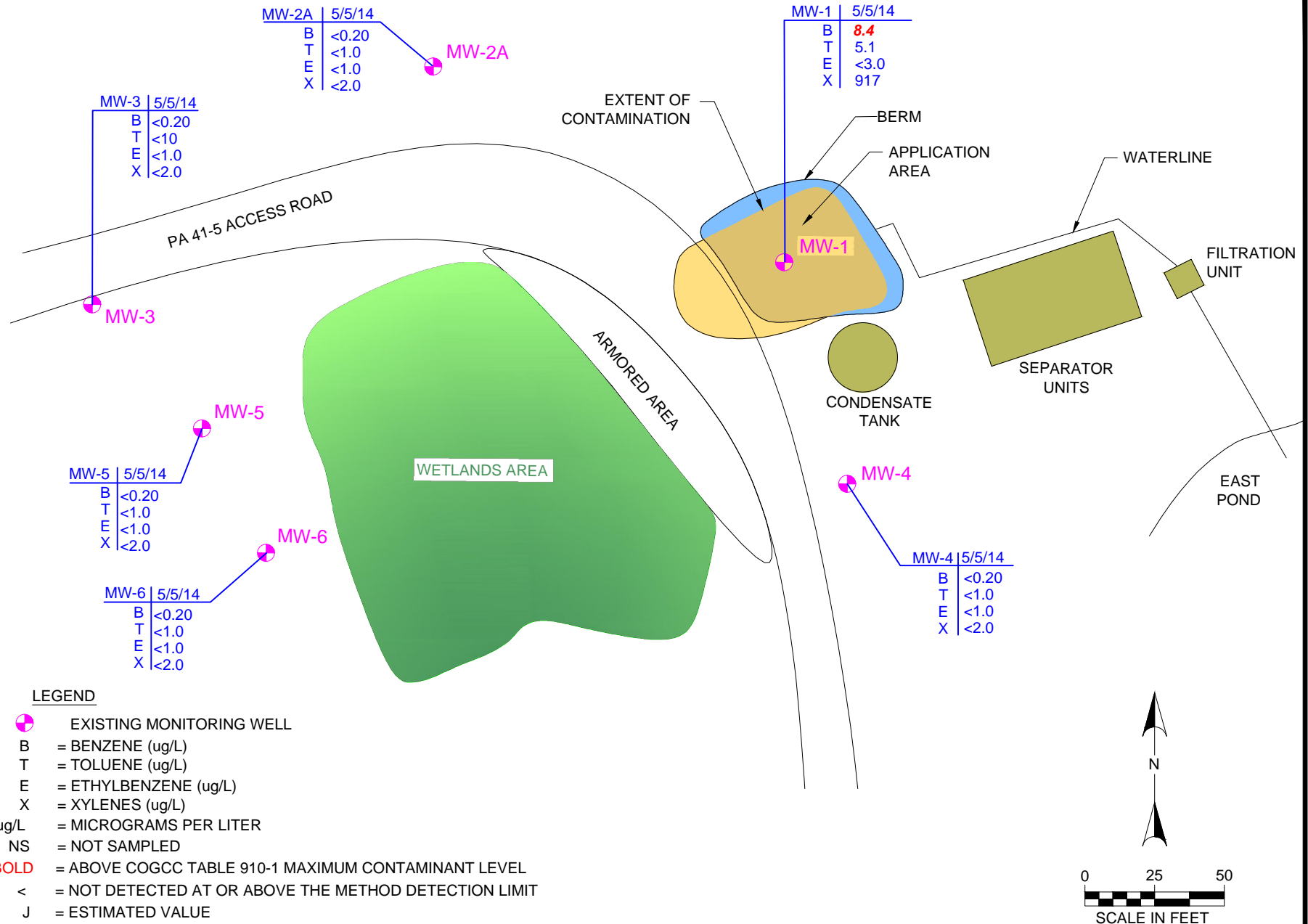


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PROJECT NO:	011-1712
DRAWN BY:	sds
DATE:	6.10.14

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS - MAY 2014
 KNIGHT PA 311-4
 SEC 4, T7S, R95W
 PARACHUTE, COLORADO

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FIGURE
 3

SAMPLE SUMMARY							
Location Description	Knight Property Monitoring						
Sample Type	Groundwater						
LABORATORY DATA SUMMARY							
Sample ID	COGCC Table 910-1 Standards	UNITS	MW-1	MW-1	MW-1	MW-1	MW-1
Sampling Period			4th Quarter	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Depth to Water (feet)			5.57	5.52	5.28	5.52	6.78
Sample Date			11/18/2011	2/14/2012	5/8/2012	8/29/2012	11/26/2012
Analytical Parameters							
TPH							
TPH Gasoline Range Organics	NA	mg/l	1.68	1.56	5.62	2.92	2.01
TPH Diesel Range Organics	NA	mg/l	0.596	0.412	0.996	0.886	0.518
BTEX							
Benzene	5	µg/l	7.9	1.2	<0.20	15.9	7.6
Toluene	560 to 1000	µg/l	1.4	< 1.0	<1.0	7.2 J	<5.0
Ethylbenzene	700	µg/l	24.3	< 1.0	<1.0	65.9	37.7
Xylene (total)	1400 to 10000	µg/l	477	227	26.7	517	421
PAHs							
Acenaphthene	NA	µg/l	< 0.2	< 0.60	<0.48	<0.48	<0.48
Acenaphthylene	NA	µg/l	< 0.2	< 0.60	<0.48	<0.48	<0.48
Anthracene	NA	µg/l	< 0.2	< 0.47	<0.48	<0.48	<0.48
Benzo(a)anthracene	NA	µg/l	< 0.2	< 0.47	<0.48	<0.48	<0.48
Benzo(a)pyrene	NA	µg/l	< 0.2	< 0.47	<0.48	<0.48	<0.48
Benzo(b)fluoranthene	NA	µg/l	< 0.2	< 0.47	<0.48	<0.48	<0.48
Benzo(g,h,i)perylene	NA	µg/l	< 0.2	< 0.54	<0.48	<0.48	<0.48
Benzo(k)fluoranthene	NA	µg/l	< 0.2	< 0.47	<0.48	<0.48	<0.48
Chrysene	NA	µg/l	< 0.2	< 0.47	<0.48	<0.48	<0.48
Dibenzo(a,h)anthracene	NA	µg/l	< 0.2	< 0.78	<0.48	<0.48	<0.48
Fluoranthene	NA	µg/l	< 0.2	< 0.71	<0.48	<0.48	<0.48
Fluorene	NA	µg/l	< 0.2	< 0.55	<0.48	<0.48	<0.48
Indeno(1,2,3-cd)pyrene	NA	µg/l	< 0.2	< 1.5	<0.48	<0.48	<0.48
1-Methylnapthalene	NA	µg/l	1.1	< 0.68	1.1 J	0.67 J	0.50 J
2-Methylnapthalene	NA	µg/l	1.6	0.83 J	2.0 J	1.0 J	<0.48
Naphthalene	NA	µg/l	2.9	1.2 J	3.6 J	2.0 J	<0.48
Phenanthrene	NA	µg/l	< 0.2	< 0.47	<0.48	<0.48	<0.48
Pyrene	NA	µg/l	< 0.2	< 0.47	<0.48	<0.48	<0.48
Metals							
Calcium	NA	mg/l	173	88.3	138	170	147
Iron	NA	mg/l	26.5	5.32	11.6	17.7	19.5
Magnesium	NA	mg/l	36.7	58.6	54.7	72.5	63.6
Manganese	NA	mg/l	1.13	0.418	0.653	0.947	0.748
Potassium	NA	mg/l	< 10	3.64	4.63	7.7	6.15
Selenium	NA	mg/l	< 0.01	< 0.05	<0.050	<0.050	<0.05
Sodium	NA	mg/l	50.2	63.8	64.7	104	80
General Chemistry							
Alkalinity, Bicarbonate	NA	mg/l	260	488	498	667	746
Alkalinity, Carbonate	NA	mg/l	< 5.0	< 5.0	<5.0	<5.0	<5.0
Alkalinity, Total as CaCO3	NA	mg/l	264	488	497	667	746
Biological Oxygen Demand, 5 Day	NA	mg/l	10.5	10.9	22.6	21	28.4
Bromide	NA	mg/l	< 0.50	< 0.20	1.3	2.8	<0.25
Chemical Oxygen Demand	NA	mg/l	31.6	18.4	62.3	79.6	21.7
Chloride	1.25 x bkgd	mg/l	16.0	11.5	9.0	139	39.2
Hydroxide Alkalinity	NA	mg/l	< 5.0	NT	NT	NT	NT
Nitrogen, Nitrate	NA	mg/l	0.66	< 0.23	<0.23	0.077	<0.050
Nitrogen, Nitrite	NA	mg/l	< 0.50	< 0.061	0.010	0.064	0.015
Phosphate, Ortho	NA	mg/l	NT	NT	NT	NT	NT
Phosphorus, Total	NA	mg/l	3.5	0.59	1.1	NT	2.0
Plate Count, Total	NA	CFU/ml	1590000	110000	300000	360000	150000
Total Dissolved Solids	NA	mg/l	NT	NT	NT	NT	NT
Sulfate	1.25 x bkgd	mg/l	16.8	10.9	5.7	66.2	13.4
Total Organic Carbon	NA	mg/l	13.2	8.8	10.4	18.5	10.2
pH	NA	su	8.34	7.76	7.67	7.38	7.48
Field Readings							
Temperature	NA	deg. C	14.6	6.82	13.89	21.20	14.49
Specific Conductivity	NA	mS/cm	0.511	0.837	0.789	1.234	1.227
Dissolved Oxygen	NA	mg/l	6.55	2.25	3.25	1.51	0.95
pH	NA	su	9.05	7.37	7.71	7.49	7.7
Solids, Total Dissolved	NA	mg/l	0.3	0.5	0.5	0.8	NT
Turbidity	NA	NTU	264	117	538	386	117

µg/l -micrograms per liter

mg/l -milligrams per liter

J - indicates an estimated value

µmhos/cm - micromhos per centimeter

mS/cm - millisiemens per centimeter

su - standard units

NA - not applicable

NTU - nephelometric turbidity units

CFU/ml - colony forming units per milliliter

a -Elevated detection limit due to matirx interference

a - Dilution required due to matrix interference

b - Elevated detection limit due to matrix interference

c - Elevated detection limit due to dilution required for possible matrix interference

Over allowable limit

SAMPLE SUMMARY								
Location Description	Knight Property Monitoring							
Sample Type	Groundwater							
LABORATORY DATA SUMMARY								
Sample ID	COGCC Table 910-1 Standards	UNITS	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1
Sampling Period			1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	1st Quarter	2nd Quarter
Depth to Water (feet)			6.00	5.16	6.15	6.20	5.57	5.26
Sample Date			3/6/2013	5/30/2013	9/19/2013	12/17/2013	2/20/2014	5/5/2014
Analytical Parameters								
TPH								
TPH Gasoline Range Organics	NA	mg/l	3.59	2.41	0.443	3.20	0.29	3.07
TPH Diesel Range Organics	NA	mg/l	0.405	0.361	0.283	0.336	0.429	0.2
BTEX								
Benzene	5	µg/l	9.8	9.7	3.4	13.1	<0.20	8.4
Toluene	560 to 1000	µg/l	<1.0	2.3	1.3J	4.8	3.1	5.1
Ethylbenzene	700	µg/l	72.4	49.7	4.8	18.7	<1.0	<2.0
Xylene (total)	1400 to 10000	µg/l	772	658	101	585	<2.0	917 ^a
PAHs								
Acenaphthene	NA	µg/l	NT	NT	<0.49	<0.48	<0.48	<0.48
Acenaphthylene	NA	µg/l	NT	NT	<0.48	<0.47	<0.47	<0.47
Anthracene	NA	µg/l	NT	NT	<0.48	<0.47	<0.47	<0.47
Benzo(a)anthracene	NA	µg/l	NT	NT	<0.48	<0.47	<0.47	<0.47
Benzo(a)pyrene	NA	µg/l	NT	NT	<0.48	<0.47	<0.47	<0.47
Benzo(b)fluoranthene	NA	µg/l	NT	NT	<0.48	<0.47	<0.47	<0.47
Benzo(g,h,i)perylene	NA	µg/l	NT	NT	<0.48	<0.47	<0.47	<0.47
Benzo(k)fluoranthene	NA	µg/l	NT	NT	<0.48	<0.47	<0.47	<0.47
Chrysene	NA	µg/l	NT	NT	<0.48	<0.47	<0.47	<0.47
Dibenzo(a,h)anthracene	NA	µg/l	NT	NT	<0.48	<0.47	<0.47	<0.47
Fluoranthene	NA	µg/l	NT	NT	<0.48	<0.47	<0.47	<0.47
Fluorene	NA	µg/l	NT	NT	<0.48	<0.47	<0.47	<0.47
Indeno(1,2,3-cd)pyrene	NA	µg/l	NT	NT	<0.55	<0.47	<0.54	<0.47
1-Methylnapthalene	NA	µg/l	NT	NT	<0.48	1.0 J	0.67 J	0.81
2-Methylnapthalene	NA	µg/l	NT	NT	<0.48	1.0 J	1.0 J	1.2
Naphthalene	NA	µg/l	NT	NT	0.69J	2.6 J	2.3 J	2.6
Phenanthrene	NA	µg/l	NT	NT	<0.48	<0.47	<0.47	ND
Pyrene	NA	µg/l	NT	NT	<0.48	<0.47	<0.47	<0.47
Metals								
Calcium	NA	mg/l	116	114	238	102	162	257
Iron	NA	mg/l	10.6	12.0	6.1	5.5	7.5	13.8
Magnesium	NA	mg/l	82.7	60.6	64.3	64.9	66.2	58.8
Manganese	NA	mg/l	0.709	0.650	0.658	0.646	1.020	1.500
Potassium	NA	mg/l	5.42	5.75	6.79	5.57	4.11	4.79
Selenium	NA	mg/l	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Sodium	NA	mg/l	101	86	118	93.8	99.3	83.8
General Chemistry								
Alkalinity, Bicarbonate	NA	mg/l	618	484	492	635	697	773
Alkalinity, Carbonate	NA	mg/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Alkalinity, Total as CaCO3	NA	mg/l	618	484	492	635	697	773
Biological Oxygen Demand, 5 Day	NA	mg/l	15.4	11.8	12.7	20.4	18.5	14
Bromide	NA	mg/l	0.16	<0.10 ^a	0.17	0.10	<0.10	<0.10 ^a
Chemical Oxygen Demand	NA	mg/l	45.9	21.2	31.6	35.9	48.3	36.3
Chloride	1.25 x bkgd	mg/l	12.3	9.7	163.0	13.2	12.0	9.6
Hydroxide Alkalinity	NA	mg/l	NT	NT	NT	NT	NT	NT
Nitrogen, Nitrate	NA	mg/l	0.26	0.88	0.24	0.22	3	2.2
Nitrogen, Nitrite	NA	mg/l	0.064	0.052	0.280	0.076	0.270	0.098
Phosphate, Ortho	NA	mg/l	NT	NT	NT	1.500	0.600	0.330
Phosphorus, Total	NA	mg/l	0.95	0.63	10.40	5.0	46.1	40.80
Plate Count, Total	NA	CFU/ml	NT	NT	NT	NT	620000	NT
Total Dissolved Solids	NA	mg/l	NT	NT	NT	684	674	636
Sulfate	1.25 x bkgd	mg/l	117	51.9	43.2	25.1	16.3	17.4
Total Organic Carbon	NA	mg/l	9.3	8.9	14.2	10.2	10.9	12.2
pH	NA	su	7.56	7.53	7.87	7.63	7.4	7.38
Field Readings								
Temperature	NA	deg. C	7.80	12.60	20.20	10.00	5.30	10.60
Specific Conductivity	NA	mS/cm	1.319	0.958	1.364	1.101	1.1	1.103
Dissolved Oxygen	NA	mg/l	1.34	0.28	6.5	0.27	0.29	0.08
pH	NA	su	7.3	7.8	8.75	8.19	NT	7.54
Solids, Total Dissolved	NA	mg/l	NT	0.6	0.9	0.7150	0.7150	676.0
Turbidity	NA	NTU	59.9	NT	NT	NT	NT	NT

µg/l -micrograms per liter

mg/l -milligrams per liter

J - indicates an estimated value

µmhos/cm - micromhos per centimeter

mS/cm - millisiemens per centimeter

su - standard units

NA - not applicable

NTU - nephelometric turbidity units

CFU/ml - colony forming units per milliliter

a -Elevated detection limit due to matrix interference

Table 1

PA 311-4

SAMPLE SUMMARY							
Location Description	Knight Property Monitoring						
Sample Type	Groundwater						
LABORATORY DATA SUMMARY							
Sample ID	COGCC Table 910-1 Standards	UNITS	MW-2A	MW-2A	MW-2A	MW-2A	MW-2A
Sampling Period			4th Quarter	1st Quarter	3rd Quarter	4th Quarter	1st Quarter
Depth to Water (feet)			4.93	5.04	4.72	5.65	5.50
Sample Date			11/18/2011	2/14/2012	8/29/2012	11/26/2012	3/6/2013
Analytical Parameters							
TPH							
TPH Gasoline Range Organics	NA	mg/l	< 0.050	< 0.10	<0.10	<0.10	<0.10
TPH Diesel Range Organics	NA	mg/l	<0.10	< 0.30	<0.25	<0.17	<0.17
BTEX							
Benzene	5	µg/l	< 1.0	< 0.20	< 0.20	<0.20	<0.20
Toluene	560 to 1000	µg/l	< 1.0	< 1.0	< 1.0	<1.0	<1.0
Ethylbenzene	700	µg/l	< 1.0	< 1.0	< 1.0	<1.0	<1.0
Xylene (total)	1400 to 10000	µg/l	< 3.0	< 2.0	< 2.0	<2.0	<2.0
PAHs							
Acenaphthene	NA	µg/l	< 0.2	< 0.60	<0.47	<0.48	NT
Acenaphthylene	NA	µg/l	< 0.2	< 0.60	<0.47	<0.48	NT
Anthracene	NA	µg/l	< 0.2	< 0.47	<0.47	<0.48	NT
Benzo(a)anthracene	NA	µg/l	< 0.2	< 0.47	<0.47	<0.48	NT
Benzo(a)pyrene	NA	µg/l	< 0.2	< 0.47	<0.47	<0.48	NT
Benzo(b)fluoranthene	NA	µg/l	< 0.2	< 0.47	<0.47	<0.48	NT
Benzo(g,h,i)perylene	NA	µg/l	< 0.2	< 0.54	<0.47	<0.48	NT
Benzo(k)fluoranthene	NA	µg/l	< 0.2	< 0.47	<0.47	<0.48	NT
Chrysene	NA	µg/l	< 0.2	< 0.47	<0.47	<0.48	NT
Dibenzo(a,h)anthracene	NA	µg/l	< 0.2	< 0.78	<0.47	<0.48	NT
Fluoranthene	NA	µg/l	< 0.2	< 0.71	<0.47	<0.48	NT
Fluorene	NA	µg/l	< 0.2	< 0.55	<0.47	<0.48	NT
Indeno(1,2,3-cd)pyrene	NA	µg/l	< 0.2	< 1.5	<0.47	<0.48	NT
1-Methylnapthalene	NA	µg/l	< 0.2	< 0.68	<0.47	<0.48	NT
2-Methylnapthalene	NA	µg/l	< 0.2	< 0.68	<0.47	<0.48	NT
Naphthalene	NA	µg/l	< 0.2	< 0.73	<0.47	<0.48	NT
Phenanthrene	NA	µg/l	< 0.2	< 0.47	<0.47	<0.48	NT
Pyrene	NA	µg/l	< 0.2	< 0.47	<0.47	<0.48	NT
Metals							
Calcium	NA	mg/l	129	109	94.6	208	107
Iron	NA	mg/l	14	4.77	10.1	33.5	15.7
Magnesium	NA	mg/l	51.4	55.4	61.6	81.6	65.2
Manganese	NA	mg/l	1.72	2.03	1.64	3.37	3.93
Potassium	NA	mg/l	< 10	3.19	6.54	8.6	6.06
Selenium	NA	mg/l	< 0.01	< 0.05	< 0.05	<0.05	<0.05
Sodium	NA	mg/l	60.4	59.4	96.7	97.8	95.6
General Chemistry							
Alkalinity, Bicarbonate	NA	mg/l	372	440	364	299	382
Alkalinity, Carbonate	NA	mg/l	< 5.0	< 5.0	<5.0	<5.0	<5.0
Alkalinity, Total as CaCO3	NA	mg/l	374	440	364	299	382
Biological Oxygen Demand, 5 Day	NA	mg/l	< 15	< 10	< 10	<10	<10
Bromide	NA	mg/l	< 0.50	< 0.20	<0.10	0.11	<0.10 ^a
Chemical Oxygen Demand	NA	mg/l	66.9	20.4	49	<10	<10
Chloride	1.25 x bkgd	mg/l	15.4	13.2	151	206	96.4
Hydroxide Alkalinity	NA	mg/l	< 5.0	NT	NT	NT	NT
Nitrogen, Nitrate	NA	mg/l	0.57	< 0.23	0.063	0.031	0.22
Nitrogen, Nitrite	NA	mg/l	< 0.50	< 0.061	0.04	<0.0080	0.0080 ^a
Phosphate, Ortho	NA	mg/l	NT	NT	NT	NT	NT
Phosphorus, Total	NA	mg/l	0.89	1.3	NT	1.4	0.44
Plate Count, Total	NA	CFU/ml	70000	6900	5600	8100	NT
Total Dissolved Solids	NA	mg/l	NT	NT	NT	NT	NT
Sulfate	1.25 x bkgd	mg/l	16.8	44.2	108	155	98.5
Total Organic Carbon	NA	mg/l	4.5	3.9	5.6	4.9	4
pH	NA	su	7.14	7.58	7.51	7.49	7.64
Field Readings							
Temperature	NA	deg. C	13.2	8.3	20.9	13.1	9.98
Specific Conductivity	NA	mS/cm	0.651	0.77	1.132	1.34	1.195
Dissolved Oxygen	NA	mg/l	0.24	1.22	1.73	1.22	0.86
pH	NA	su	7.50	7.25	7.56	7.75	7.31
Solids, Total Dissolved	NA	mg/l	0.4	0.5	0.7	NT	NT
Turbidity	NA	NTU	653	766	1997	345	96.3

µg/l -micrograms per liter

mg/l -milligrams per liter

J - indicates an estimated value

µmhos/cm - micromhos per centimeter

mS/cm - millisiemens per centimeter

su - standard units

NA - not applicable

NTU - nephelometric turbidity units

CFU/ml - colony forming units per milliliter

a -Elevated detection limit due to matrix interference

SAMPLE SUMMARY							
Location Description	Knight Property Monitoring						
Sample Type	Groundwater						
LABORATORY DATA SUMMARY							
Sample ID	COGCC Table 910-1 Standards	UNITS	MW-2A	MW-2A	MW-2A	MW-2A	MW-2A
Sampling Period			2nd Quarter	3rd Quarter	4th Quarter	1st Quarter	2nd Quarter
Depth to Water (feet)			4.44	5.16	5.44	4.91	4.35
Sample Date			5/30/2013	9/19/2013	12/17/2013	2/20/2014	5/5/2014
Analytical Parameters							
TPH							
TPH Gasoline Range Organics	NA	mg/l	<0.10	<0.10	<0.10	<0.050	<0.050
TPH Diesel Range Organics	NA	mg/l	<0.17	<0.17	.175 J	<0.17	<0.17
BTEX							
Benzene	5	µg/l	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	560 to 1000	µg/l	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	700	µg/l	<1.0	<1.0	<1.0	<1.0	<1.0
Xylene (total)	1400 to 10000	µg/l	<2.0	<2.0	<2.0	<2.0	<2.0
PAHs							
Acenaphthene	NA	µg/l	NT	<0.49	<0.48	<0.49	<0.49
Acenaphthylene	NA	µg/l	NT	<0.48	<0.47	<0.48	<0.48
Anthracene	NA	µg/l	NT	<0.48	<0.47	<0.48	<0.48
Benzo(a)anthracene	NA	µg/l	NT	<0.48	<0.47	<0.48	<0.48
Benzo(a)pyrene	NA	µg/l	NT	<0.48	<0.47	<0.48	<0.48
Benzo(b)fluoranthene	NA	µg/l	NT	<0.48	<0.47	<0.48	<0.48
Benzo(g,h,i)perylene	NA	µg/l	NT	<0.48	<0.47	<0.48	<0.48
Benzo(k)fluoranthene	NA	µg/l	NT	<0.48	<0.47	<0.48	<0.48
Chrysene	NA	µg/l	NT	<0.48	<0.47	<0.48	<0.48
Dibenzo(a,h)anthracene	NA	µg/l	NT	<0.48	<0.47	<0.48	<0.48
Fluoranthene	NA	µg/l	NT	<0.48	<0.47	<0.48	<0.48
Fluorene	NA	µg/l	NT	<0.48	<0.47	<0.48	<0.48
Indeno(1,2,3-cd)pyrene	NA	µg/l	NT	<0.55	<0.54	<0.54	<0.48
1-Methylnapthalene	NA	µg/l	NT	<0.48	<0.47	<0.48	<0.48
2-Methylnapthalene	NA	µg/l	NT	<0.48	<0.47	<0.48	<0.48
Naphthalene	NA	µg/l	NT	<0.48	<0.47	<0.48	<0.48
Phenanthrene	NA	µg/l	NT	<0.48	<0.47	<0.48	<0.48
Pyrene	NA	µg/l	NT	<0.48	<0.47	<0.48	<0.48
Metals							
Calcium	NA	mg/l	102	123	134	84.6	154
Iron	NA	mg/l	15.0	25.0	26.7	5.3	18.7
Magnesium	NA	mg/l	64.7	67.2	68.4	64.4	68.5
Manganese	NA	mg/l	2.62	1.61	2.57	1.25	1.72
Potassium	NA	mg/l	5.93	6.84	6.43	6.22	5.99
Selenium	NA	mg/l	<0.05	<0.05	<0.05	<0.05	<0.05
Sodium	NA	mg/l	90.2	122.0	120.0	106.0	98.2
General Chemistry							
Alkalinity, Bicarbonate	NA	mg/l	483	354	414	512	509
Alkalinity, Carbonate	NA	mg/l	<5.0	<5.0	<5.0	<5.0	<5.0
Alkalinity, Total as CaCO3	NA	mg/l	483	354	414	512	509
Biological Oxygen Demand, 5 Day	NA	mg/l	1.4	<1.0	1.0	15.8	3.1
Bromide	NA	mg/l	<0.10 ^a	<0.10 ^a	<0.10	<0.10	<0.10 ^a
Chemical Oxygen Demand	NA	mg/l	71.3	24.3	14.7	23.7	14.6
Chloride	1.25 x bkgd	mg/l	16.8	149	109	53	20.7
Hydroxide Alkalinity	NA	mg/l	NT	NT	NT	NT	NT
Nitrogen, Nitrate	NA	mg/l	0.035	<0.020 ^a	0.081	0.079	0.042
Nitrogen, Nitrite	NA	mg/l	<0.0080 ^a	<0.0080 ^a	<0.0080 ^a	0.049	<0.0080 ^a
Phosphate, Ortho	NA	mg/l	NT	NT	<0.13 ^a	<0.10	<0.10 ^a
Phosphorus, Total	NA	mg/l	0.05	0.22	0.74	0.38	0.85
Plate Count, Total	NA	CFU/ml	NT	NT	NT	110000	NT
Total Dissolved Solids	NA	mg/l	NT	NT	772	740	692
Sulfate	1.25 x bkgd	mg/l	98.5	112	110	69.7	78.8
Total Organic Carbon	NA	mg/l	5.3	5.2	5	11.4	4.3
pH	NA	su	7.66	7.7	7.63	7.42	7.58
Field Readings							
Temperature	NA	deg. C	11.50	17.50	10.10	5.70	9.90
Specific Conductivity	NA	mS/cm	1.037	1.319	1.209	1.252	1.144
Dissolved Oxygen	NA	mg/l	0.17	0.1	0.40	0.41	0.3
pH	NA	su	7.7	7.83	8.90	NT	7.59
Solids, Total Dissolved	NA	mg/l	0.7	0.9	0.7865	0.8125	741.0
Turbidity	NA	NTU	NT	NT	NT	NT	NT

µg/l -micrograms per liter

mg/l -milligrams per liter

J - indicates an estimated value

µmhos/cm - micromhos per centimeter

mS/cm - millisiemens per centimeter

su - standard units

NA - not applicable

NTU - nephelometric turbidity units

CFU/ml - colony forming units per milliliter

a -Elevated detection limit due to matirx interference

SAMPLE SUMMARY							
Location Description	Knight Property Monitoring						
Sample Type	Groundwater						
LABORATORY DATA SUMMARY							
Sample ID	COGCC Table 910-1 Standards	UNITS	MW-3	MW-3	MW-3	MW-3	MW-3
Sampling Period			4th Quarter	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Depth to Water (feet)			5.68	5.77	5.67	5.56	6.45
Sample Date			11/18/2011	2/14/2012	5/8/2012	8/29/2012	11/26/2012
Analytical Parameters							
TPH							
TPH Gasoline Range Organics	NA	mg/l	< 0.050	< 0.10	<0.10	<0.10	<0.10
TPH Diesel Range Organics	NA	mg/l	25.1	< 0.30	<0.25	<0.25	<0.17
BTEX							
Benzene	5	µg/l	< 1.0	< 0.20	<0.20	<0.20	<0.20
Toluene	560 to 1000	µg/l	< 1.0	< 1.0	<1.0	<1.0	<1.0
Ethylbenzene	700	µg/l	< 1.0	< 1.0	<1.0	<1.0	<1.0
Xylene (total)	1400 to 10000	µg/l	< 3.0	< 2.0	<2.0	<2.0	<2.0
PAHs							
Acenaphthene	NA	µg/l	< 0.2	< 0.60	<0.48	<0.48	<0.49
Acenaphthylene	NA	µg/l	< 0.2	< 0.60	<0.48	<0.48	<0.49
Anthracene	NA	µg/l	< 0.2	< 0.47	<0.48	<0.48	<0.49
Benzo(a)anthracene	NA	µg/l	< 0.2	< 0.47	<0.48	<0.48	<0.49
Benzo(a)pyrene	NA	µg/l	< 0.2	< 0.47	<0.48	<0.48	<0.49
Benzo(b)fluoranthene	NA	µg/l	< 0.2	< 0.47	<0.48	<0.48	<0.49
Benzo(g,h,i)perylene	NA	µg/l	< 0.2	< 0.54	<0.48	<0.48	<0.49
Benzo(k)fluoranthene	NA	µg/l	< 0.2	< 0.47	<0.48	<0.48	<0.49
Chrysene	NA	µg/l	< 0.2	< 0.47	<0.48	<0.48	<0.49
Dibenzo(a,h)anthracene	NA	µg/l	< 0.2	< 0.78	<0.48	<0.48	<0.49
Fluoranthene	NA	µg/l	< 0.2	< 0.71	<0.48	<0.48	<0.49
Fluorene	NA	µg/l	< 0.2	< 0.55	<0.48	<0.48	<0.49
Indeno(1,2,3-cd)pyrene	NA	µg/l	< 0.2	< 1.5	<0.48	<0.48	<0.49
1-Methylnapthalene	NA	µg/l	< 0.2	< 0.68	<0.48	<0.48	<0.49
2-Methylnapthalene	NA	µg/l	< 0.2	< 0.68	<0.48	<0.48	<0.49
Naphthalene	NA	µg/l	< 0.2	< 0.73	<0.48	<0.48	<0.49
Phenanthrene	NA	µg/l	< 0.2	< 0.47	<0.48	<0.48	<0.49
Pyrene	NA	µg/l	< 0.2	< 0.47	<0.48	<0.48	<0.49
Metals							
Calcium	NA	mg/l	76.7	151	157	133	218
Iron	NA	mg/l	4.8	6.79	26.8	16.3	35.4
Magnesium	NA	mg/l	37.2	50.3	57.8	62.8	75.1
Manganese	NA	mg/l	0.718	1.43	1.71	1.32	2.31
Potassium	NA	mg/l	< 10	2.95	6.88	7.87	9.53
Selenium	NA	mg/l	< 0.01	< 0.05	<0.050	<0.050	<0.05
Sodium	NA	mg/l	56.1	61.4	61.0	92.9	93.9
General Chemistry							
Alkalinity, Bicarbonate	NA	mg/l	384	462	427	396	309
Alkalinity, Carbonate	NA	mg/l	< 5.0	< 5.0	<5.0	<5.0	<5.0
Alkalinity, Total as CaCO3	NA	mg/l	386	462	427	396	309
Biological Oxygen Demand, 5 Day	NA	mg/l	11.1	< 10	<10	<10	<10
Bromide	NA	mg/l	< 0.50	< 0.20	<0.20	<0.10	<0.10
Chemical Oxygen Demand	NA	mg/l	21	< 10	<10	49	<10
Chloride	1.25 x bkgd	mg/l	16.7	14.5	12.9	151	210
Hydroxide Alkalinity	NA	mg/l	< 5.0	NT	NT	NT	NT
Nitrogen, Nitrate	NA	mg/l	0.58	< 0.23	<0.090	<0.020	0.034
Nitrogen, Nitrite	NA	mg/l	0.67	< 0.061	<0.010	<0.040	0.015
Phosphate, Ortho	NA	mg/l	NT	NT	NT	NT	NT
Phosphorus, Total	NA	mg/l	0.45	1.7	1.3	NT	1.7
Plate Count, Total	NA	CFU/ml	120000	8500	10000	14000	12000
Total Dissolved Solids	NA	mg/l	NT	NT	NT	NT	NT
Sulfate	1.25 x bkgd	mg/l	10.9	24	34.7	125	137
Total Organic Carbon	NA	mg/l	4.5	4.3	4.2	5.6	4.4
pH	NA	su	7.1	7.64	7.6	7.33	7.46
Field Readings							
Temperature	NA	deg. C	14.8	7.46	13.49	21.37	14.35
Specific Conductivity	NA	mS/cm	0.663	0.763	0.783	1.291	0.417
Dissolved Oxygen	NA	mg/l	0.14	2.43	1.46	1.82	1.67
pH	NA	su	7.41	7.26	7.8	7.48	7.75
Solids, Total Dissolved	NA	mg/l	0.4	0.5	0.5	0.8	NT
Turbidity	NA	NTU	568	2000	1854	1102	1971

µg/l -micrograms per liter

mg/l -milligrams per liter

J - indicates an estimated value

µmhos/cm - micromhos per centimeter

mS/cm - millisiemens per centimeter

su - standard units

NA - not applicable

NTU - nephelometric turbidity units

CFU/ml - colony forming units per milliliter

a -Elevated detection limit due to matrix interference

SAMPLE SUMMARY							
Location Description	Knight Property Monitoring						
Sample Type	Groundwater						
LABORATORY DATA SUMMARY							
Sample ID	COGCC Table 910-1 Standards	UNITS	MW-3	MW-3	MW-3	MW-3	MW-3
Sampling Period			1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	1st Quarter
Depth to Water (feet)			6.11	5.25	5.83	6.03	5.6
Sample Date			3/6/2013	5/30/2013	9/19/2013	12/17/2013	2/20/2014
Analytical Parameters							
TPH							
TPH Gasoline Range Organics	NA	mg/l	<0.10	<0.10	<0.10	<0.10	<0.050
TPH Diesel Range Organics	NA	mg/l	<0.17	<0.17	0.284	<0.17	<0.17
BTEX							
Benzene	5	µg/l	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	560 to 1000	µg/l	<1.0	<1.0	<1.0	<10	<10
Ethylbenzene	700	µg/l	<1.0	<1.0	<1.0	<1.0	<1.0
Xylene (total)	1400 to 10000	µg/l	<2.0	<2.0	<2.0	<2.0	<2.0
PAHs							
Acenaphthene	NA	µg/l	NT	NT	<0.49	<0.49	<0.50
Acenaphthylene	NA	µg/l	NT	NT	<0.48	<0.48	<0.49
Anthracene	NA	µg/l	NT	NT	<0.48	<0.48	<0.49
Benzo(a)anthracene	NA	µg/l	NT	NT	<0.48	<0.48	<0.49
Benzo(a)pyrene	NA	µg/l	NT	NT	<0.48	<0.48	<0.49
Benzo(b)fluoranthene	NA	µg/l	NT	NT	<0.48	<0.48	<0.49
Benzo(g,h,i)perylene	NA	µg/l	NT	NT	<0.48	<0.48	<0.49
Benzo(k)fluoranthene	NA	µg/l	NT	NT	<0.48	<0.48	<0.49
Chrysene	NA	µg/l	NT	NT	<0.48	<0.48	<0.49
Dibenzo(a,h)anthracene	NA	µg/l	NT	NT	<0.48	<0.48	<0.49
Fluoranthene	NA	µg/l	NT	NT	<0.48	<0.48	<0.49
Fluorene	NA	µg/l	NT	NT	<0.48	<0.48	<0.49
Indeno(1,2,3-cd)pyrene	NA	µg/l	NT	NT	<0.55	<0.54	<0.55
1-Methylnapthalene	NA	µg/l	NT	NT	<0.48	<0.48	<0.49
2-Methylnapthalene	NA	µg/l	NT	NT	<0.48	<0.48	<0.49
Naphthalene	NA	µg/l	NT	NT	<0.48	<0.48	<0.49
Phenanthrene	NA	µg/l	NT	NT	<0.48	<0.48	<0.49
Pyrene	NA	µg/l	NT	NT	<0.48	<0.48	<0.49
Metals							
Calcium	NA	mg/l	117	111	106	109	105
Iron	NA	mg/l	12.7	10.4	6.1	12.3	11.8
Magnesium	NA	mg/l	65.5	59.0	59.3	60.6	59.8
Manganese	NA	mg/l	1.18	1.01	0.77	1.08	1.18
Potassium	NA	mg/l	5.43	4.79	5.43	5.68	4.28
Selenium	NA	mg/l	<0.05	<0.05	<0.05	<0.050	<0.050
Sodium	NA	mg/l	89.2	92.4	125.0	120.0	104.0
General Chemistry							
Alkalinity, Bicarbonate	NA	mg/l	333	465	380	394	423
Alkalinity, Carbonate	NA	mg/l	<5.0	<5.0	<5.0	<5.0	<5.0
Alkalinity, Total as CaCO3	NA	mg/l	333	465	380	394	423
Biological Oxygen Demand, 5 Day	NA	mg/l	<10	<1.0	<1.0	<1.0	1.1
Bromide	NA	mg/l	0.13	0.13	<0.10 ^a	<0.10 ^a	0.11
Chemical Oxygen Demand	NA	mg/l	15.7	25.3	21.1	10.3	19.3
Chloride	1.25 x bkgd	mg/l	161	49.5	163	126	84
Hydroxide Alkalinity	NA	mg/l	NT	NT	NT	NT	NT
Nitrogen, Nitrate	NA	mg/l	<0.020 ^a	0.04	0.12	0.093	0.031
Nitrogen, Nitrite	NA	mg/l	<0.0080 ^a	<0.020 ^a	<0.0080 ^a	<0.0080 ^a	<0.0080 ^a
Phosphate, Ortho	NA	mg/l	NT	NT	NT	<0.13	<0.10
Phosphorus, Total	NA	mg/l	0.31	3.3	0.13	0.21	0.42
Plate Count, Total	NA	CFU/ml	NT	NT	NT	NT	42000
Total Dissolved Solids	NA	mg/l	NT	NT	NT	788	728
Sulfate	1.25 x bkgd	mg/l	161	170	134	120	105
Total Organic Carbon	NA	mg/l	3.7	6.1	4.6	3.6	4.6
pH	NA	su	7.55	7.63	7.66	7.66	7.56
Field Readings							
Temperature	NA	deg. C	7.88	13.60	20.50	10.00	5.40
Specific Conductivity	NA	mS/cm	1.448	1.278	1.527	1.248	1.157
Dissolved Oxygen	NA	mg/l	1	0.71	0.34	0.44	0.68
pH	NA	su	7.25	7.61	7.36	7.92	NT
Solids, Total Dissolved	NA	mg/l	NT	0.8	1.0	0.8125	0.7540
Turbidity	NA	NTU	328	NT	NT	NT	NT

µg/l -micrograms per liter

mg/l -milligrams per liter

J - indicates an estimated value

µmhos/cm - micromhos per centimeter

mS/cm - millisiemens per centimeter

su - standard units

NA - not applicable

NTU - nephelometric turbidity units

CFU/ml - colony forming units per milliliter

a -Elevated detection limit due to matirx interference

Table 1

PA 311-4

SAMPLE SUMMARY							
Location Description	Knight Property Monitoring						
Sample Type	Groundwater						
LABORATORY DATA SUMMARY							
Sample ID	COGCC Table 910-1 Standards	UNITS	MW-3	MW-4	MW-4	MW-4	MW-4
Sampling Period			2nd Quarter	4th Quarter	1st Quarter	2nd Quarter	3rd Quarter
Depth to Water (feet)			5.22	10.64	10.34	10.63	11.31
Sample Date			5/5/2014	11/18/2011	2/14/2012	5/8/2012	8/29/2012
Analytical Parameters							
TPH							
TPH Gasoline Range Organics	NA	mg/l	<0.050	< 0.050	< 0.10	<0.10	<0.10
TPH Diesel Range Organics	NA	mg/l	<0.17	<0.10	< 0.30	<0.25	<0.25
BTEX							
Benzene	5	µg/l	<0.20	< 1.0	< 0.20	<0.20	<0.20
Toluene	560 to 1000	µg/l	<10	< 1.0	< 1.0	<1.0	<1.0
Ethylbenzene	700	µg/l	<1.0	< 1.0	< 1.0	<1.0	<1.0
Xylene (total)	1400 to 10000	µg/l	<2.0	< 3.0	< 2.0	<2.0	<2.0
PAHs							
Acenaphthene	NA	µg/l	<0.49	< 0.2	< 0.60	<0.47	<0.48
Acenaphthylene	NA	µg/l	<0.48	< 0.2	< 0.60	<0.47	<0.48
Anthracene	NA	µg/l	<0.48	< 0.2	< 0.47	<0.47	<0.48
Benzo(a)anthracene	NA	µg/l	<0.48	< 0.2	< 0.47	<0.47	<0.48
Benzo(a)pyrene	NA	µg/l	<0.48	< 0.2	< 0.47	<0.47	<0.48
Benzo(b)fluoranthene	NA	µg/l	<0.48	< 0.2	< 0.47	<0.47	<0.48
Benzo(g,h,i)perylene	NA	µg/l	<0.48	< 0.2	< 0.54	<0.47	<0.48
Benzo(k)fluoranthene	NA	µg/l	<0.48	< 0.2	< 0.47	<0.47	<0.48
Chrysene	NA	µg/l	<0.48	< 0.2	< 0.47	<0.47	<0.48
Dibenzo(a,h)anthracene	NA	µg/l	<0.48	< 0.2	< 0.78	<0.47	<0.48
Fluoranthene	NA	µg/l	<0.48	< 0.2	< 0.71	<0.47	<0.48
Fluorene	NA	µg/l	<0.48	< 0.2	< 0.55	<0.47	<0.48
Indeno(1,2,3-cd)pyrene	NA	µg/l	<0.48	< 0.2	< 1.5	<0.47	<0.48
1-Methylnapthalene	NA	µg/l	<0.48	< 0.2	< 0.68	<0.47	<0.48
2-Methylnapthalene	NA	µg/l	<0.48	< 0.2	< 0.68	<0.47	<0.48
Napthalene	NA	µg/l	<0.48	< 0.2	< 0.73	<0.47	<0.48
Phenanthrene	NA	µg/l	<0.48	< 0.2	< 0.47	<0.47	<0.48
Pyrene	NA	µg/l	<0.48	< 0.2	< 0.47	<0.47	<0.48
Metals							
Calcium	NA	mg/l	119	73.9	126	107	121
Iron	NA	mg/l	13.9	3.52	6.71	18.1	19.7
Magnesium	NA	mg/l	53.1	40.6	48.6	55.4	71.5
Manganese	NA	mg/l	1.43	1.74	1.71	1.91	4.4
Potassium	NA	mg/l	4.8	< 10	2.89	5.9	8.73
Selenium	NA	mg/l	<0.050	< 0.01	< 0.05	<0.050	<0.050
Sodium	NA	mg/l	102.0	62.1	58.3	71.8	99.1
General Chemistry							
Alkalinity, Bicarbonate	NA	mg/l	463	392	364	452	616
Alkalinity, Carbonate	NA	mg/l	<5.0	< 5.0	< 5.0	<5.0	<5.0
Alkalinity, Total as CaCO3	NA	mg/l	463	396	364	452	616
Biological Oxygen Demand, 5 Day	NA	mg/l	1.9	8.1	< 10	<10	10.7
Bromide	NA	mg/l	0.11	< 0.50	< 0.20	<0.40	0.19
Chemical Oxygen Demand	NA	mg/l	12.8	28.1	< 10	<10	57
Chloride	1.25 x bkgd	mg/l	36.5	14.1	6.9	7.2	13.1
Hydroxide Alkalinity	NA	mg/l	NT	< 5.0	NT	NT	NT
Nitrogen, Nitrate	NA	mg/l	<0.020 ^a	< 0.50	< 0.23	<0.090	<0.020
Nitrogen, Nitrite	NA	mg/l	<0.0080 ^a	< 0.50	< 0.061	<0.010	0.008
Phosphate, Ortho	NA	mg/l	<0.10 ^a	NT	NT	NT	NT
Phosphorus, Total	NA	mg/l	0.47	0.14	1.4	1.1	NT
Plate Count, Total	NA	CFU/ml	NT	120000	4600	5400	3800
Total Dissolved Solids	NA	mg/l	690	NT	NT	NT	NT
Sulfate	1.25 x bkgd	mg/l	89.1	36.2	40.8	34.2	13
Total Organic Carbon	NA	mg/l	4.5	4.8	3.6	4.5	8.5
pH	NA	su	7.66	7.18	7.73	7.65	7.64
Field Readings							
Temperature	NA	deg. C	10.30	14.2	6.5	13.23	19.42
Specific Conductivity	NA	mS/cm	1.127	0.713	0.682	0.814	1.02
Dissolved Oxygen	NA	mg/l	0.2	0.15	2.34	2.74	1.67
pH	NA	su	7.71	7.5	7.38	7.93	7.6
Solids, Total Dissolved	NA	mg/l	734.5	0.5	0.4	0.5	0.7
Turbidity	NA	NTU	NT	62.7	443	930	1572

µg/l -micrograms per liter

mg/l -milligrams per liter

J - indicates an estimated value

µmhos/cm - micromhos per centimeter

mS/cm - millisiemens per centimeter

su - standard units

NA - not applicable

NTU - nephelometric turbidity units

CFU/ml - colony forming units per milliliter

a -Elevated detection limit due to matirx interference

Table 1

SAMPLE SUMMARY							
Location Description	Knight Property Monitoring						
Sample Type	Groundwater						
LABORATORY DATA SUMMARY							
Sample ID	COGCC Table 910-1 Standards	UNITS	MW-4	MW-4	MW-4	MW-4	MW-4
Sampling Period			4th Quarter	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Depth to Water (feet)			11.64	10.77	10.7	11.9	11.27
Sample Date			11/26/2012	3/6/2013	5/30/2013	9/19/2013	12/17/2013
Analytical Parameters							
TPH							
TPH Gasoline Range Organics	NA	mg/l	<0.10	<0.10	<0.10	<0.10	<0.10
TPH Diesel Range Organics	NA	mg/l	<0.17	<0.17	<0.17	2.34	<0.17
BTEX							
Benzene	5	µg/l	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	560 to 1000	µg/l	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	700	µg/l	<1.0	<1.0	<1.0	<1.0	<1.0
Xylene (total)	1400 to 10000	µg/l	<2.0	<2.0	<2.0	<2.0	<2.0
PAHs							
Acenaphthene	NA	µg/l	<0.48	NT	NT	<0.48	<0.48
Acenaphthylene	NA	µg/l	<0.48	NT	NT	<0.47	<0.47
Anthracene	NA	µg/l	<0.48	NT	NT	<0.47	<0.47
Benzo(a)anthracene	NA	µg/l	<0.48	NT	NT	<0.47	<0.47
Benzo(a)pyrene	NA	µg/l	<0.48	NT	NT	<0.47	<0.47
Benzo(b)fluoranthene	NA	µg/l	<0.48	NT	NT	<0.47	<0.47
Benzo(g,h,i)perylene	NA	µg/l	<0.48	NT	NT	<0.47	<0.47
Benzo(k)fluoranthene	NA	µg/l	<0.48	NT	NT	<0.47	<0.47
Chrysene	NA	µg/l	<0.48	NT	NT	<0.47	<0.47
Dibenzo(a,h)anthracene	NA	µg/l	<0.48	NT	NT	<0.47	<0.47
Fluoranthene	NA	µg/l	<0.48	NT	NT	<0.47	<0.47
Fluorene	NA	µg/l	<0.48	NT	NT	<0.47	<0.47
Indeno(1,2,3-cd)pyrene	NA	µg/l	<0.48	NT	NT	<0.54	<0.54
1-Methylnapthalene	NA	µg/l	<0.48	NT	NT	<0.47	<0.47
2-Methylnapthalene	NA	µg/l	<0.48	NT	NT	<0.47	<0.47
Naphthalene	NA	µg/l	<0.48	NT	NT	<0.47	<0.47
Phenanthrene	NA	µg/l	<0.48	NT	NT	<0.47	<0.47
Pyrene	NA	µg/l	<0.48	NT	NT	<0.47	<0.47
Metals							
Calcium	NA	mg/l	238	60.4	74.3	119.0	171.0
Iron	NA	mg/l	47.5	2.63	7.26	9.34	2.88
Magnesium	NA	mg/l	104	64.5	64.9	84.1	55.9
Manganese	NA	mg/l	2.16	0.316	0.533	0.48	0.29
Potassium	NA	mg/l	12.2	5	5.6	6.78	5.76
Selenium	NA	mg/l	<0.05	<0.05	<0.05	<0.05	<0.050
Sodium	NA	mg/l	110.0	99.2	85.0	118.0	109.0
General Chemistry							
Alkalinity, Bicarbonate	NA	mg/l	618	489	482	309	399
Alkalinity, Carbonate	NA	mg/l	<5.0	<5.0	<5.0	346	203
Alkalinity, Total as CaCO3	NA	mg/l	618	489	482	665	602
Biological Oxygen Demand, 5 Day	NA	mg/l	<10	<10	2.4	<1.0	<1.0
Bromide	NA	mg/l	0.26	<0.10 ^a	<0.10 ^a	<0.25 ^a	0.34
Chemical Oxygen Demand	NA	mg/l	20.3	23.7	12.4	245	45.5
Chloride	1.25 x bkgd	mg/l	16.4	8	12	12.1	8.5
Hydroxide Alkalinity	NA	mg/l	NT	NT	NT	NT	NT
Nitrogen, Nitrate	NA	mg/l	<0.050	<0.020 ^a	1.7	0.056	0.55
Nitrogen, Nitrite	NA	mg/l	<0.0080	<0.0080 ^a	0.02	2.5	0.034
Phosphate, Ortho	NA	mg/l	NT	NT	NT	NT	0.77
Phosphorus, Total	NA	mg/l	1.2	0.10	0.16	80.30	134
Plate Count, Total	NA	CFU/ml	13000	NT	NT	NT	NT
Total Dissolved Solids	NA	mg/l	NT	NT	NT	NT	464
Sulfate	1.25 x bkgd	mg/l	110	113	74.9	70.7	108
Total Organic Carbon	NA	mg/l	10.3	3.8	4.4	25.3	8.1
pH	NA	su	7.69	7.81	7.81	11.4	11.31
Field Readings							
Temperature	NA	deg. C	14.68	6.83	12.20	19.20	11.00
Specific Conductivity	NA	mS/cm	1.371	1.15	0.983	1.736	0.920
Dissolved Oxygen	NA	mg/l	1.96	1.24	1.01	18.24	4.59
pH	NA	su	7.85	7.42	7.82	12.23	9.54
Solids, Total Dissolved	NA	mg/l	NT	NT	0.6	1.1	0.8045
Turbidity	NA	NTU	554	26.5	Nt	NT	NT

µg/l -micrograms per liter

mg/l -milligrams per liter

J - indicates an estimated value

µmhos/cm - micromhos per centimeter

mS/cm - millisiemens per centimeter

su - standard units

NA - not applicable

NTU - nephelometric turbidity units

CFU/ml - colony forming units per milliliter

a -Elevated detection limit due to matirx interference

SAMPLE SUMMARY								
Location Description	Knight Property Monitoring							
Sample Type	Groundwater							
LABORATORY DATA SUMMARY								
Sample ID	COGCC Table 910-1 Standards	UNITS	MW-4	MW-4	MW-5	MW-5	MW-5	MW-5
Sampling Period			1st Quarter	2nd Quarter	4th Quarter	1st Quarter	2nd Quarter	3rd Quarter
Depth to Water (feet)			10.49	10.32	5.63	6.06	6.11	6.12
Sample Date			2/20/2014	5/5/2014	11/18/2011	2/14/2012	5/8/2012	8/29/2012
Analytical Parameters								
TPH								
TPH Gasoline Range Organics	NA	mg/l	<0.050	<0.050	< 0.050	< 0.10	<0.10	<0.10
TPH Diesel Range Organics	NA	mg/l	<0.17	<0.17	<0.10	< 0.30	<0.25	<0.25
BTEX								
Benzene	5	µg/l	<0.20	<0.20	< 1.0	< 0.20	<0.20	<0.20
Toluene	560 to 1000	µg/l	<1.0	<1.0	< 1.0	< 1.0	<1.0	<1.0
Ethylbenzene	700	µg/l	<1.0	<1.0	< 1.0	< 1.0	<1.0	<1.0
Xylene (total)	1400 to 10000	µg/l	<2.0	<2.0	< 3.0	< 2.0	<2.0	<2.0
PAHs								
Acenaphthene	NA	µg/l	<0.50	<0.49	< 0.2	< 0.60	<0.48	<0.48
Acenaphthylene	NA	µg/l	<0.49	<0.48	< 0.2	< 0.60	<0.48	<0.48
Anthracene	NA	µg/l	<0.49	<0.48	< 0.2	< 0.47	<0.48	<0.48
Benzo(a)anthracene	NA	µg/l	<0.49	<0.48	< 0.2	< 0.47	<0.48	<0.48
Benzo(a)pyrene	NA	µg/l	<0.49	<0.48	< 0.2	< 0.47	<0.48	<0.48
Benzo(b)fluoranthene	NA	µg/l	<0.49	<0.48	< 0.2	< 0.47	<0.48	<0.48
Benzo(g,h,i)perylene	NA	µg/l	<0.49	<0.48	< 0.2	< 0.54	<0.48	<0.48
Benzo(k)fluoranthene	NA	µg/l	<0.49	<0.48	< 0.2	< 0.47	<0.48	<0.48
Chrysene	NA	µg/l	<0.49	<0.48	< 0.2	< 0.47	<0.48	<0.48
Dibenzo(a,h)anthracene	NA	µg/l	<0.49	<0.48	< 0.2	< 0.78	<0.48	<0.48
Fluoranthene	NA	µg/l	<0.49	<0.48	< 0.2	< 0.71	<0.48	<0.48
Fluorene	NA	µg/l	<0.49	<0.48	< 0.2	< 0.55	<0.48	<0.48
Indeno(1,2,3-cd)pyrene	NA	µg/l	<0.55	<0.48	< 0.2	< 1.5	<0.48	<0.48
1-Methylnapthalene	NA	µg/l	<0.49	<0.48	< 0.2	< 0.68	<0.48	<0.48
2-Methylnapthalene	NA	µg/l	<0.49	<0.48	< 0.2	< 0.68	<0.48	<0.48
Naphthalene	NA	µg/l	<0.49	<0.48	< 0.2	< 0.73	<0.48	<0.48
Phenanthrene	NA	µg/l	<0.49	<0.48	< 0.2	< 0.47	<0.48	<0.48
Pyrene	NA	µg/l	<0.49	<0.48	< 0.2	< 0.47	<0.48	<0.48
Metals								
Calcium	NA	mg/l	96.7	139.0	119	198	157	99.9
Iron	NA	mg/l	0.86	1.38	18.9	18.2	33.3	11.4
Magnesium	NA	mg/l	53.1	59.7	45.6	62.2	60.8	56.0
Manganese	NA	mg/l	0.198	0.327	0.977	1.56	1.33	0.808
Potassium	NA	mg/l	3.55	4.01	< 10	3.22	6.71	5.69
Selenium	NA	mg/l	<0.050	<0.050	< 0.01	< 0.05	<0.050	<0.050
Sodium	NA	mg/l	83.6	69.5	55.8	56.4	58.9	8.0
General Chemistry								
Alkalinity, Bicarbonate	NA	mg/l	332	458	364	540	481	429
Alkalinity, Carbonate	NA	mg/l	85.8	43.1	< 5.0	< 5.0	<5.0	<5.0
Alkalinity, Total as CaCO3	NA	mg/l	418	501	366	540	481	429
Biological Oxygen Demand, 5 Day	NA	mg/l	<1.0	<1.0	< 15	< 10	<10	<10
Bromide	NA	mg/l	0.09	<0.10 ^a	< 0.50	< 4.0	<0.40	<0.10
Chemical Oxygen Demand	NA	mg/l	30.1	16	40.4	18.1	<10	75.5
Chloride	1.25 x bkgd	mg/l	6.5	5.7	18.1	20	10.6	133
Hydroxide Alkalinity	NA	mg/l	NT	NT	< 5.0	NT	NT	NT
Nitrogen, Nitrate	NA	mg/l	1.3	0.18	0.51	< 0.45	<0.090	0.039
Nitrogen, Nitrite	NA	mg/l	0.046	0.015	< 0.50	< 0.061	<0.010	0.052
Phosphate, Ortho	NA	mg/l	1.1	0.41	NT	NT	NT	NT
Phosphorus, Total	NA	mg/l	12	12	1.2	2	1.6	NT
Plate Count, Total	NA	CFU/ml	5600	NT	180000	3300	1900	63000
Total Dissolved Solids	NA	mg/l	504	538	NT	NT	NT	NT
Sulfate	1.25 x bkgd	mg/l	91.2	55.8	16.2	19	27.8	101
Total Organic Carbon	NA	mg/l	6.2	4.8	6.1	10.9	5.0	6.4
pH	NA	su	9.02	8.56	7.22	7.62	7.65	7.47
Field Readings								
Temperature	NA	deg. C	5.70	10.50	12.7	5.77	13.89	20.67
Specific Conductivity	NA	mS/cm	0.799	0.912	0.667	0.798	0.727	1.116
Dissolved Oxygen	NA	mg/l	4.99	5.23	0.13	1.75	2.24	1.15
pH	NA	su	NT	8.65	7.47	7.22	7.85	7.51
Solids, Total Dissolved	NA	mg/l	0.5200	591.5	0.4	0.5	0.5	0.7
Turbidity	NA	NTU	NT	NT	896	2000	2000	2000

µg/l -micrograms per liter

mg/l -milligrams per liter

J - indicates an estimated value

µmhos/cm - micromhos per centimeter

mS/cm - millisiemens per centimeter

su - standard units

NA - not applicable

NTU - nephelometric turbidity units

CFU/ml - colony forming units per milliliter

a -Elevated detection limit due to matrix interference

SAMPLE SUMMARY								
Location Description	Knight Property Monitoring							
Sample Type	Groundwater							
LABORATORY DATA SUMMARY								
Sample ID	COGCC Table 910-1 Standards	UNITS	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5
Sampling Period			4th Quarter	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	1st Quarter
Depth to Water (feet)			6.8	6.6	5.81	6.38	6.59	5.99
Sample Date			11/26/2012	3/6/2013	5/30/2013	9/19/2013	12/17/2013	2/20/2014
Analytical Parameters								
TPH								
TPH Gasoline Range Organics	NA	mg/l	<0.10	<0.10	<0.10	<0.10	<0.10	<0.050
TPH Diesel Range Organics	NA	mg/l	<0.17	<0.17	<0.17	<0.17	<0.17	0.42
BTEX								
Benzene	5	µg/l	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	560 to 1000	µg/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	700	µg/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylene (total)	1400 to 10000	µg/l	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
PAHs								
Acenaphthene	NA	µg/l	<0.47	NT	NT	<0.49	<0.48	<0.51
Acenaphthylene	NA	µg/l	<0.47	NT	NT	<0.48	<0.47	<0.50
Anthracene	NA	µg/l	<0.47	NT	NT	<0.48	<0.47	<0.50
Benzo(a)anthracene	NA	µg/l	<0.47	NT	NT	<0.48	<0.47	<0.50
Benzo(a)pyrene	NA	µg/l	<0.47	NT	NT	<0.48	<0.47	<0.50
Benzo(b)fluoranthene	NA	µg/l	<0.47	NT	NT	<0.48	<0.47	<0.50
Benzo(g,h,i)perylene	NA	µg/l	<0.47	NT	NT	<0.48	<0.47	<0.50
Benzo(k)fluoranthene	NA	µg/l	<0.47	NT	NT	<0.48	<0.47	<0.50
Chrysene	NA	µg/l	<0.47	NT	NT	<0.48	<0.47	<0.50
Dibenzo(a,h)anthracene	NA	µg/l	<0.47	NT	NT	<0.48	<0.47	<0.50
Fluoranthene	NA	µg/l	<0.47	NT	NT	<0.48	<0.47	<0.50
Fluorene	NA	µg/l	<0.47	NT	NT	<0.48	<0.47	<0.50
Indeno(1,2,3-cd)pyrene	NA	µg/l	<0.47	NT	NT	<0.54	<0.54	<0.57
1-Methylnapthalene	NA	µg/l	<0.47	NT	NT	<0.48	<0.47	<0.50
2-Methylnapthalene	NA	µg/l	<0.47	NT	NT	<0.48	<0.47	<0.50
Napthalene	NA	µg/l	<0.47	NT	NT	<0.48	<0.47	<0.50
Phenanthrene	NA	µg/l	<0.47	NT	NT	<0.48	<0.47	<0.50
Pyrene	NA	µg/l	<0.47	NT	NT	<0.48	<0.47	<0.50
Metals								
Calcium	NA	mg/l	333	103	84	107	99.6	90.1
Iron	NA	mg/l	83.1	15.6	10.8	6.1	13.7	17.9
Magnesium	NA	mg/l	108	71.4	52.2	57.6	62.8	56.5
Manganese	NA	mg/l	2.81	0.849	0.587	0.67	0.721	0.692
Potassium	NA	mg/l	12.6	4.34	4.2	5.2	4.85	3.73
Selenium	NA	mg/l	<0.05	<0.05	<0.050	<0.050	<0.050	<0.050
Sodium	NA	mg/l	85.1	97.9	88.4	116.0	122.0	92.7
General Chemistry								
Alkalinity, Bicarbonate	NA	mg/l	452	512	495	390	474	439
Alkalinity, Carbonate	NA	mg/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Alkalinity, Total as CaCO3	NA	mg/l	452	512	496	390	474	439
Biological Oxygen Demand, 5 Day	NA	mg/l	<10	<10	1.8	<1.0	1.3	38.6
Bromide	NA	mg/l	0.1	0.16	0.25	<0.10 ^a	0.12	<0.10
Chemical Oxygen Demand	NA	mg/l	10.8	20	12.7	18.3	17.0	74.0
Chloride	1.25 x bkgd	mg/l	198	78	15	150	72.2	41.4
Hydroxide Alkalinity	NA	mg/l	NT	NT	NT	NT	NT	NT
Nitrogen, Nitrate	NA	mg/l	<0.050	0.022	<0.020 ^a	<0.020 ^a	<0.020 ^a	0.14
Nitrogen, Nitrite	NA	mg/l	0.011	<0.0080 ^a	<0.0080 ^a	<0.0080 ^a	0.0099	<0.0080 ^a
Phosphate, Ortho	NA	mg/l	NT	NT	NT	NT	<0.13	<0.10
Phosphorus, Total	NA	mg/l	1.8	0.53	0.15	0.093	0.33	0.27
Plate Count, Total	NA	CFU/ml	16000	NT	NT	NT	NT	16000
Total Dissolved Solids	NA	mg/l	NT	NT	NT	NT	776	677
Sulfate	1.25 x bkgd	mg/l	142	109	64.9	119	118	86.1
Total Organic Carbon	NA	mg/l	5.2	5.6	5.1	4.9	5.5	27.6
pH	NA	su	7.54	7.6	7.68	7.51	7.75	7.56
Field Readings								
Temperature	NA	deg. C	13.05	6.3	11.6	19.3	9.2	4.8
Specific Conductivity	NA	mS/cm	1.46	1.369	1.024	1.397	1.231	1.064
Dissolved Oxygen	NA	mg/l	1.2	0.85	0.23	0.09	0.08	0.25
pH	NA	su	7.76	7.3	7.67	7.71	8.13	NT
Solids, Total Dissolved	NA	mg/l	NT	NT	0.67	0.91	0.7930	0.6890
Turbidity	NA	NTU	465	227	NT	NT	NT	NT

µg/l -micrograms per liter

mg/l -milligrams per liter

J - indicates an estimated value

µmhos/cm - micromhos per centimeter

mS/cm - millisiemens per centimeter

su - standard units

NA - not applicable

NTU - nephelometric turbidity units

CFU/ml - colony forming units per milliliter

a -Elevated detection limit due to matrix interference

SAMPLE SUMMARY								
Location Description	Knight Property Monitoring							
Sample Type	Groundwater							
LABORATORY DATA SUMMARY								
Sample ID	COGCC Table 910-1 Standards	UNITS	MW-5	MW-6	MW-6	MW-6	MW-6	MW-6
Sampling Period			2nd Quarter	4th Quarter	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Depth to Water (feet)			5.85	6.69	6.70	6.78	6.84	7.35
Sample Date			5/5/2014	11/18/2011	2/14/2012	5/8/2012	8/29/2012	11/26/2012
Analytical Parameters								
TPH								
TPH Gasoline Range Organics	NA	mg/l	<0.050	< 0.050	< 0.10	<0.10	<0.10	<0.10
TPH Diesel Range Organics	NA	mg/l	<0.17	0.213	< 0.30	0.261	0.445	0.347
BTEX								
Benzene	5	µg/l	<0.20	< 1.0	< 0.20	<0.20	<0.20	<0.20
Toluene	560 to 1000	µg/l	<1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0
Ethylbenzene	700	µg/l	<1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0
Xylene (total)	1400 to 10000	µg/l	<2.0	< 3.0	< 2.0	<2.0	<2.0	<2.0
PAHs								
Acenaphthene	NA	µg/l	<0.49	< 0.2	< 0.60	<0.48	<0.48	<0.48
Acenaphthylene	NA	µg/l	<0.48	< 0.2	< 0.60	<0.48	<0.48	<0.48
Anthracene	NA	µg/l	<0.48	< 0.2	< 0.47	<0.48	<0.48	<0.48
Benzo(a)anthracene	NA	µg/l	<0.48	< 0.2	< 0.47	<0.48	<0.48	<0.48
Benzo(a)pyrene	NA	µg/l	<0.48	< 0.2	< 0.47	<0.48	<0.48	<0.48
Benzo(b)fluoranthene	NA	µg/l	<0.48	< 0.2	< 0.47	<0.48	<0.48	<0.48
Benzo(g,h,i)perylene	NA	µg/l	<0.48	< 0.2	< 0.54	<0.48	<0.48	<0.48
Benzo(k)fluoranthene	NA	µg/l	<0.48	< 0.2	< 0.47	<0.48	<0.48	<0.48
Chrysene	NA	µg/l	<0.48	< 0.2	< 0.47	<0.48	<0.48	<0.48
Dibenzo(a,h)anthracene	NA	µg/l	<0.48	< 0.2	< 0.78	<0.48	<0.48	<0.48
Fluoranthene	NA	µg/l	<0.48	< 0.2	< 0.71	<0.48	<0.48	<0.48
Fluorene	NA	µg/l	<0.48	< 0.2	< 0.55	<0.48	<0.48	<0.48
Indeno(1,2,3-cd)pyrene	NA	µg/l	<0.48	< 0.2	< 1.5	<0.48	<0.48	<0.48
1-Methylnapthalene	NA	µg/l	<0.48	< 0.2	< 0.68	<0.48	<0.48	<0.48
2-Methylnapthalene	NA	µg/l	<0.48	< 0.2	< 0.68	<0.48	<0.48	<0.48
Napthalene	NA	µg/l	<0.48	< 0.2	< 0.73	<0.48	<0.48	<0.48
Phenanthrene	NA	µg/l	<0.48	< 0.2	< 0.47	<0.48	<0.48	<0.48
Pyrene	NA	µg/l	<0.48	< 0.2	< 0.47	<0.48	<0.48	<0.48
Metals								
Calcium	NA	mg/l	112.0	80.8	72.8	78.8	114	229
Iron	NA	mg/l	12.6	16.7	4.98	13.2	6.90	46.60
Magnesium	NA	mg/l	50.5	51	57.9	53.8	57.4	92.7
Manganese	NA	mg/l	0.754	3.25	1.59	1.17	0.817	3.950
Potassium	NA	mg/l	4.12	< 10	2.17	4.43	6.43	9.82
Selenium	NA	mg/l	<0.050	< 0.01	< 0.05	<0.050	<0.050	<0.05
Sodium	NA	mg/l	89.4	53.7	59.0	63.9	82.0	82.0
General Chemistry								
Alkalinity, Bicarbonate	NA	mg/l	457	388	435	438	352	356
Alkalinity, Carbonate	NA	mg/l	63.1	< 5.0	< 5.0	<5.0		<5.0
Alkalinity, Total as CaCO3	NA	mg/l	457	390	435	438	352	356
Biological Oxygen Demand, 5 Day	NA	mg/l	4.5	6.8	< 10	<10	<10	<10
Bromide	NA	mg/l	<0.10 ^a	< 0.50	< 4.0	1.0	0.063	0.100
Chemical Oxygen Demand	NA	mg/l	11.8	96.8	35.3	<10	47.4	10.8
Chloride	1.25 x bkgd	mg/l	12.6	21.1	31	11.8	136	198
Hydroxide Alkalinity	NA	mg/l	NT	< 5.0	NT	NT	NT	NT
Nitrogen, Nitrate	NA	mg/l	<0.020 ^a	0.56	< 0.45	<0.23	<0.010	0.056
Nitrogen, Nitrite	NA	mg/l	0.023 ^a	< 0.50	< 0.061	<0.010	0.04	<0.0080
Phosphate, Ortho	NA	mg/l	<0.10	NT	NT	NT	NT	NT
Phosphorus, Total	NA	mg/l	0.37	0.46	0.29	0.83	NT	1.6
Plate Count, Total	NA	CFU/ml	NT	2210000	81000	64000	820000	420000
Total Dissolved Solids	NA	mg/l	612	NT	NT	NT	NT	NT
Sulfate	1.25 x bkgd	mg/l	71.8	45.1	21.7	13.2	114	114
Total Organic Carbon	NA	mg/l	5.6	34.6	11.5	7.3	5.2	5.2
pH	NA	su	7.64	7.2	7.59	7.65	7.39	5.57
Field Readings								
Temperature	NA	deg. C	9.3	12.7	5.44	14.02	21.30	12.89
Specific Conductivity	NA	mS/cm	1.05	0.749	0.866	0.790	1.145	1.395
Dissolved Oxygen	NA	mg/l	0.12	0.27	1.4	2.40	2.30	1.35
pH	NA	su	7.71	7.52	7.17	NT	7.49	7.72
Solids, Total Dissolved	NA	mg/l	682.5	0.5	0.6	0.5	0.7	0.6
Turbidity	NA	NTU	NT	478	248	576	201	384

µg/l -micrograms per liter

mg/l -milligrams per liter

J - indicates an estimated value

µmhos/cm - micromhos per centimeter

mS/cm - millisiemens per centimeter

su - standard units

NA - not applicable

NTU - nephelometric turbidity units

CFU/ml - colony forming units per milliliter

a -Elevated detection limit due to matrix interference

Table 1

SAMPLE SUMMARY								
Location Description	Knight Property Monitoring							
Sample Type	Groundwater							
LABORATORY DATA SUMMARY								
Sample ID	COGCC Table 910-1 Standards	UNITS	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6
Sampling Period			1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	1st Quarter	2nd Quarter
Depth to Water (feet)			7.00	6.51	7.09	6.97	6.70	6.57
Sample Date			3/6/2013	5/30/2013	9/19/2013	12/17/2013	2/20/2014	5/5/2014
Analytical Parameters								
TPH								
TPH Gasoline Range Organics	NA	mg/l	<0.10	<0.10	<0.10	<0.10	<0.050	<0.050
TPH Diesel Range Organics	NA	mg/l	0.175 J	<0.17	<0.17	0.17	<0.17	<0.17
BTEX								
Benzene	5	µg/l	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	560 to 1000	µg/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	700	µg/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylene (total)	1400 to 10000	µg/l	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
PAHs								
Acenaphthene	NA	µg/l	NT	NT	<0.49	<0.48	<0.49	<0.49
Acenaphthylene	NA	µg/l	NT	NT	<0.48	<0.47	<0.48	<0.48
Anthracene	NA	µg/l	NT	NT	<0.48	<0.47	<0.48	<0.48
Benzo(a)anthracene	NA	µg/l	NT	NT	<0.48	<0.47	<0.48	<0.48
Benzo(a)pyrene	NA	µg/l	NT	NT	<0.48	<0.47	<0.48	<0.48
Benzo(b)fluoranthene	NA	µg/l	NT	NT	<0.48	<0.47	<0.48	<0.48
Benzo(g,h,i)perylene	NA	µg/l	NT	NT	<0.48	<0.47	<0.48	<0.48
Benzo(k)fluoranthene	NA	µg/l	NT	NT	<0.48	<0.47	<0.48	<0.48
Chrysene	NA	µg/l	NT	NT	<0.48	<0.47	<0.48	<0.48
Dibenzo(a,h)anthracene	NA	µg/l	NT	NT	<0.48	<0.47	<0.48	<0.48
Fluoranthene	NA	µg/l	NT	NT	<0.48	<0.47	<0.48	<0.48
Fluorene	NA	µg/l	NT	NT	<0.48	<0.47	<0.48	<0.48
Indeno(1,2,3-cd)pyrene	NA	µg/l	NT	NT	<0.54	<0.54	<0.54	<0.54
1-Methylnapthalene	NA	µg/l	NT	NT	<0.48	<0.47	<0.48	<0.48
2-Methylnapthalene	NA	µg/l	NT	NT	<0.48	<0.47	<0.48	<0.48
Naphthalene	NA	µg/l	NT	NT	<0.48	<0.47	<0.48	<0.48
Phenanthrene	NA	µg/l	NT	NT	<0.48	<0.47	<0.48	<0.48
Pyrene	NA	µg/l	NT	NT	<0.48	<0.47	<0.48	<0.48
Metals								
Calcium	NA	mg/l	103	66	111	82.8	76.7	94.0
Iron	NA	mg/l	14.50	8.70	5.01	6.49	9.12	14.50
Magnesium	NA	mg/l	86.7	55.7	58.3	69.9	65.1	56.0
Manganese	NA	mg/l	1.07	0.56	0.55	0.838	0.550	0.795
Potassium	NA	mg/l	5.24	4.01	6.08	4.11	3.07	4.01
Selenium	NA	mg/l	<0.05	<0.05	<0.05	<0.05	<0.050	<0.050
Sodium	NA	mg/l	96.5	87.1	111.0	118.0	88.0	85.5
General Chemistry								
Alkalinity, Bicarbonate	NA	mg/l	574	466	394	558	488	478
Alkalinity, Carbonate	NA	mg/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Alkalinity, Total as CaCO3	NA	mg/l	574	466	394	558	488	478
Biological Oxygen Demand, 5 Day	NA	mg/l	<10	2	<1.0	1.8	1.2	1.9
Bromide	NA	mg/l	0.270	<0.10a	0.100	<0.10 ^a	0.120	<0.10 ^a
Chemical Oxygen Demand	NA	mg/l	21.3	11.5	13.2	36.6	21.9	18.5
Chloride	1.25 x bkgd	mg/l	57.8	13	129	37.7	16.6	9.6
Hydroxide Alkalinity	NA	mg/l	NT	NT	NT	NT	NT	NT
Nitrogen, Nitrate	NA	mg/l	<0.020 ^a	0.021	<0.020 ^a	0.045	0.1	0.024
Nitrogen, Nitrite	NA	mg/l	<0.0080 ^a	<0.0080a	<0.0080 ^a	<0.0080 ^a	<0.0080 ^a	<0.0080 ^a
Phosphate, Ortho	NA	mg/l	NT	NT	NT	<0.13	<0.10	<0.10 ^a
Phosphorus, Total	NA	mg/l	0.32	0.22	2.5	0.59	0.33	0.22
Plate Count, Total	NA	CFU/ml	NT	NT	NT	NT	370000	NT
Total Dissolved Solids	NA	mg/l	NT	NT	NT	708	648	568
Sulfate	1.25 x bkgd	mg/l	95.9	62.5	120	73.6	56.8	36.2
Total Organic Carbon	NA	mg/l	7	5.1	4.7	5.5	5.3	4.3
pH	NA	su	7.61	7.65	7.57	7.7	7.61	7.65
Field Readings								
Temperature	NA	deg. C	5.30	12.20	21.16	7.60	2.90	9.60
Specific Conductivity	NA	mS/cm	1.368	0.956	1.364	1.160	1.067	0.983
Dissolved Oxygen	NA	mg/l	2.59	5.00	1.45	0.71	2.78	0.87
pH	NA	su	7.35	7.78	7.71	8.25	NT	7.7
Solids, Total Dissolved	NA	mg/l	NT	0.6	0.9	0.7540	0.6890	637
Turbidity	NA	NTU	NT	NT	NT	NT	NT	NT

µg/l -micrograms per liter

mg/l -milligrams per liter

J - indicates an estimated value

µmhos/cm - micromhos per centimeter

mS/cm - millisiemens per centimeter

su - standard units

NA - not applicable

NTU - nephelometric turbidity units

CFU/ml - colony forming units per milliliter

a -Elevated detection limit due to matirx interference



05/13/14

Technical Report for

WPX Energy Rocky Mountain, LLC

CORCCOGJ: Knight Property Quarterly Sampling (011.1712)

NXEEPPARACH

Accutest Job Number: D57430

Sampling Date: 05/05/14

Report to:

Olsson Associates
760 Horizon Drive Suite 102
Grand Junction, CO 81506
tdobransky@olssonassociates.com; karolina.blaney@wpxenergy.com
ATTN: Tim Dobransky

Total number of pages in report: 77



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

A handwritten signature in black ink, appearing to read 'Scott Heideman'.

Scott Heideman
Laboratory Director

Client Service contact: Renea Jackson 303-425-6021

Certifications: CO (CO00049), ID, NE (CO00049), ND (R-027), NJ (CO 0007), OK (D9942), UT (NELAP CO00049), TX (T104704511)

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Test results relate only to samples analyzed.

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Sample Summary

WPX Energy Rocky Mountain, LLC

Job No: D57430

CORCCOGJ: Knight Property Quarterly Sampling (011.1712)
Project No: NXEEPPARACH

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
D57430-1	05/05/14	10:55 JM	05/06/14	AQ	Ground Water	MW-1
D57430-2	05/05/14	11:20 JM	05/06/14	AQ	Ground Water	MW-2A
D57430-3	05/05/14	10:40 JM	05/06/14	AQ	Ground Water	MW-3
D57430-4	05/05/14	12:15 JM	05/06/14	AQ	Ground Water	MW-4
D57430-5	05/05/14	10:00 JM	05/06/14	AQ	Ground Water	MW-5
D57430-6	05/05/14	09:05 JM	05/06/14	AQ	Ground Water	MW-6

Summary of Hits

Job Number: D57430
Account: WPX Energy Rocky Mountain, LLC
Project: CORCCOGJ: Knight Property Quarterly Sampling (011.1712)
Collected: 05/05/14

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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D57430-1 MW-1

1-Methylnaphthalene	0.81 J	4.7	0.47	ug/l	SW846 8270C
2-Methylnaphthalene	1.2 J	4.7	0.47	ug/l	SW846 8270C
Naphthalene	2.6 J	4.7	0.47	ug/l	SW846 8270C
TPH-GRO (C6-C10) ^a	3.07	0.20	0.050	mg/l	SW846 8015B
Benzene	8.4	1.0	0.20	ug/l	SW846 8021B
Toluene	5.1	2.0	1.0	ug/l	SW846 8021B
Xylenes (total)	917	40	40	ug/l	SW846 8021B
TPH-DRO (C10-C28)	0.200	0.19	0.17	mg/l	SW846-8015B
Calcium	257000	400		ug/l	SW846 6010C
Iron	13800	70		ug/l	SW846 6010C
Magnesium	58800	200		ug/l	SW846 6010C
Manganese	1500	5.0		ug/l	SW846 6010C
Potassium	4790	1000		ug/l	SW846 6010C
Sodium	83800	400		ug/l	SW846 6010C
Alkalinity, Bicarbonate as CaCO ₃	773	5.0		mg/l	SM 2320B-2011
Alkalinity, Total as CaCO ₃	773	5.0		mg/l	SM 2320B-2011
BOD, 5 Day	14.0	1.0		mg/l	SM 5210B-2011
Chemical Oxygen Demand	36.3	10		mg/l	SM 5220D-2011
Chloride	9.6	1.0		mg/l	EPA 300.0/SW846 9056
Nitrogen, Nitrate	2.2	0.10		mg/l	EPA 300.0/SW846 9056
Nitrogen, Nitrite	0.098	0.0080		mg/l	EPA 300.0/SW846 9056
Phosphate, Ortho	0.33	0.10		mg/l	EPA 300.0/SW846 9056
Phosphorus, Total	40.8	1.0		mg/l	HACH8190/SM4500P-B/E
Solids, Total Dissolved	636	10		mg/l	SM 2540C-2011
Sulfate	17.4	1.0		mg/l	EPA 300.0/SW846 9056
Total Organic Carbon	12.2	1.0		mg/l	SM 5310B-2011
pH	7.38			su	SM4500HB+ -2011/9040C

D57430-2 MW-2A

Calcium	154000	400		ug/l	SW846 6010C
Iron	18700	70		ug/l	SW846 6010C
Magnesium	68500	200		ug/l	SW846 6010C
Manganese	1720	5.0		ug/l	SW846 6010C
Potassium	5990	1000		ug/l	SW846 6010C
Sodium	98200	400		ug/l	SW846 6010C
Alkalinity, Bicarbonate as CaCO ₃	509	5.0		mg/l	SM 2320B-2011
Alkalinity, Total as CaCO ₃	509	5.0		mg/l	SM 2320B-2011
BOD, 5 Day	3.1	1.0		mg/l	SM 5210B-2011
Chemical Oxygen Demand	14.6	10		mg/l	SM 5220D-2011
Chloride	20.7	1.0		mg/l	EPA 300.0/SW846 9056
Nitrogen, Nitrate	0.042	0.020		mg/l	EPA 300.0/SW846 9056
Phosphorus, Total	0.85	0.010		mg/l	HACH8190/SM4500P-B/E

Summary of Hits

Job Number: D57430
Account: WPX Energy Rocky Mountain, LLC
Project: CORCCOGJ: Knight Property Quarterly Sampling (011.1712)
Collected: 05/05/14

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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Solids, Total Dissolved		692	10		mg/l	SM 2540C-2011
Sulfate		78.8	2.5		mg/l	EPA 300.0/SW846 9056
Total Organic Carbon		4.3	1.0		mg/l	SM 5310B-2011
pH		7.58			su	SM4500HB+ -2011/9040C

D57430-3 MW-3

Calcium	119000	400		ug/l	SW846 6010C
Iron	13900	70		ug/l	SW846 6010C
Magnesium	53100	200		ug/l	SW846 6010C
Manganese	1430	5.0		ug/l	SW846 6010C
Potassium	4800	1000		ug/l	SW846 6010C
Sodium	102000	400		ug/l	SW846 6010C
Alkalinity, Bicarbonate as CaCO ₃	463	5.0		mg/l	SM 2320B-2011
Alkalinity, Total as CaCO ₃	463	5.0		mg/l	SM 2320B-2011
BOD, 5 Day	1.9	1.0		mg/l	SM 5210B-2011
Bromide	0.11	0.10		mg/l	EPA 300.0/SW846 9056
Chemical Oxygen Demand	12.8	10		mg/l	SM 5220D-2011
Chloride	36.5	1.0		mg/l	EPA 300.0/SW846 9056
Phosphorus, Total	0.47	0.010		mg/l	HACH8190/SM4500P-B/E
Solids, Total Dissolved	690	10		mg/l	SM 2540C-2011
Sulfate	89.1	2.5		mg/l	EPA 300.0/SW846 9056
Total Organic Carbon	4.5	1.0		mg/l	SM 5310B-2011
pH	7.66			su	SM4500HB+ -2011/9040C

D57430-4 MW-4

Calcium	139000	400		ug/l	SW846 6010C
Iron	1380	70		ug/l	SW846 6010C
Magnesium	59700	200		ug/l	SW846 6010C
Manganese	327	5.0		ug/l	SW846 6010C
Potassium	4010	1000		ug/l	SW846 6010C
Sodium	69500	400		ug/l	SW846 6010C
Alkalinity, Bicarbonate as CaCO ₃	458	5.0		mg/l	SM 2320B-2011
Alkalinity, Carbonate	43.1	5.0		mg/l	SM 2320B-2011
Alkalinity, Total as CaCO ₃	501	5.0		mg/l	SM 2320B-2011
Chemical Oxygen Demand	16.0	10		mg/l	SM 5220D-2011
Chloride	5.7	1.0		mg/l	EPA 300.0/SW846 9056
Nitrogen, Nitrate	0.18	0.020		mg/l	EPA 300.0/SW846 9056
Nitrogen, Nitrite	0.015	0.0080		mg/l	EPA 300.0/SW846 9056
Phosphate, Ortho	0.41	0.10		mg/l	EPA 300.0/SW846 9056
Phosphorus, Total	12.2	0.50		mg/l	HACH8190/SM4500P-B/E
Solids, Total Dissolved	538	10		mg/l	SM 2540C-2011
Sulfate	55.8	1.0		mg/l	EPA 300.0/SW846 9056
Total Organic Carbon	4.8	1.0		mg/l	SM 5310B-2011

Summary of Hits

Job Number: D57430
Account: WPX Energy Rocky Mountain, LLC
Project: CORCCOGJ: Knight Property Quarterly Sampling (011.1712)
Collected: 05/05/14

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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pH		8.56			su	SM4500HB+ -2011/9040C
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D57430-5 MW-5

Calcium	112000	400		ug/l	SW846 6010C
Iron	12600	70		ug/l	SW846 6010C
Magnesium	50500	200		ug/l	SW846 6010C
Manganese	754	5.0		ug/l	SW846 6010C
Potassium	4120	1000		ug/l	SW846 6010C
Sodium	89400	400		ug/l	SW846 6010C
Alkalinity, Bicarbonate as CaCO ₃	457	5.0		mg/l	SM 2320B-2011
Alkalinity, Carbonate	63.1	5.0		mg/l	SM 2320B-2011
Alkalinity, Total as CaCO ₃	457	5.0		mg/l	SM 2320B-2011
BOD, 5 Day	4.5	1.0		mg/l	SM 5210B-2011
Chemical Oxygen Demand	11.8	10		mg/l	SM 5220D-2011
Chloride	12.6	1.0		mg/l	EPA 300.0/SW846 9056
Nitrogen, Nitrite	0.023	0.0080		mg/l	EPA 300.0/SW846 9056
Phosphorus, Total	0.37	0.010		mg/l	HACH8190/SM4500P-B/E
Solids, Total Dissolved	612	10		mg/l	SM 2540C-2011
Sulfate	71.8	2.5		mg/l	EPA 300.0/SW846 9056
Total Organic Carbon	5.6	5.0		mg/l	SM 5310B-2011
pH	7.64			su	SM4500HB+ -2011/9040C

D57430-6 MW-6

Calcium	94000	400		ug/l	SW846 6010C
Iron	14500	70		ug/l	SW846 6010C
Magnesium	56000	200		ug/l	SW846 6010C
Manganese	795	5.0		ug/l	SW846 6010C
Potassium	4010	1000		ug/l	SW846 6010C
Sodium	85500	400		ug/l	SW846 6010C
Alkalinity, Bicarbonate as CaCO ₃	478	5.0		mg/l	SM 2320B-2011
Alkalinity, Total as CaCO ₃	478	5.0		mg/l	SM 2320B-2011
BOD, 5 Day	1.9	1.0		mg/l	SM 5210B-2011
Chemical Oxygen Demand	18.5	10		mg/l	SM 5220D-2011
Chloride	9.6	1.0		mg/l	EPA 300.0/SW846 9056
Nitrogen, Nitrate	0.024	0.020		mg/l	EPA 300.0/SW846 9056
Phosphorus, Total	0.22	0.050		mg/l	HACH8190/SM4500P-B/E
Solids, Total Dissolved	568	10		mg/l	SM 2540C-2011
Sulfate	36.2	1.0		mg/l	EPA 300.0/SW846 9056
Total Organic Carbon	4.3	1.0		mg/l	SM 5310B-2011
pH	7.65			su	SM4500HB+ -2011/9040C

(a) The pH of the sample was > 2 at time of analysis.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW-1	Date Sampled:	05/05/14
Lab Sample ID:	D57430-1	Date Received:	05/06/14
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	CORCCOGJ: Knight Property Quarterly Sampling (011.1712)		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G119370.D	1	05/08/14	DC	05/08/14	OP9869	E1G1316
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1060 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.7	0.48	ug/l	
208-96-8	Acenaphthylene	ND	4.7	0.47	ug/l	
120-12-7	Anthracene	ND	4.7	0.47	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.7	0.47	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.7	0.47	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.7	0.47	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.7	0.47	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.7	0.47	ug/l	
218-01-9	Chrysene	ND	4.7	0.47	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.7	0.47	ug/l	
206-44-0	Fluoranthene	ND	4.7	0.47	ug/l	
86-73-7	Fluorene	ND	4.7	0.47	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.7	0.54	ug/l	
90-12-0	1-Methylnaphthalene	0.81	4.7	0.47	ug/l	J
91-57-6	2-Methylnaphthalene	1.2	4.7	0.47	ug/l	J
91-20-3	Naphthalene	2.6	4.7	0.47	ug/l	J
85-01-8	Phenanthrene	ND	4.7	0.47	ug/l	
129-00-0	Pyrene	ND	4.7	0.47	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	67%		25-130%
321-60-8	2-Fluorobiphenyl	74%		30-130%
1718-51-0	Terphenyl-d14	49%		19-140%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-1	
Lab Sample ID:	D57430-1	Date Sampled: 05/05/14
Matrix:	AQ - Ground Water	Date Received: 05/06/14
Method:	SW846 8015B	Percent Solids: n/a
Project:	CORCCOGJ: Knight Property Quarterly Sampling (011.1712)	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	GA21700.D	1	05/06/14	EV	n/a	n/a	GGA1221
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	3.07	0.20	0.050	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	102%		60-140%		

(a) The pH of the sample was > 2 at time of analysis.

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-1	Date Sampled: 05/05/14
Lab Sample ID: D57430-1	Date Received: 05/06/14
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8021B	
Project: CORCCOGJ: Knight Property Quarterly Sampling (011.1712)	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA21700.D	1	05/06/14	EV	n/a	n/a	GTA1221
Run #2	TA21738.D	20	05/07/14	EV	n/a	n/a	GTA1222

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	8.4	1.0	0.20	ug/l	
108-88-3	Toluene	5.1	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	1.0	ug/l	
1330-20-7	Xylenes (total)	917 ^a	40	40	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	110%	104%	60-140%
120-82-1	1,2,4-Trichlorobenzene	102%		60-140%

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-1		
Lab Sample ID:	D57430-1	Date Sampled:	05/05/14
Matrix:	AQ - Ground Water	Date Received:	05/06/14
Method:	SW846-8015B SW846 3510C	Percent Solids:	n/a
Project:	CORCCOGJ: Knight Property Quarterly Sampling (011.1712)		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FI12409.D	1	05/07/14	JS	05/07/14	OP9868	GF1774
Run #2							

	Initial Volume	Final Volume
Run #1	1060 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	0.200	0.19	0.17	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	56%		10-130%		

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-1	Date Sampled: 05/05/14
Lab Sample ID: D57430-1	Date Received: 05/06/14
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: CORCCOGJ: Knight Property Quarterly Sampling (011.1712)	

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	257000	400	ug/l	1	05/07/14	05/08/14 KV	SW846 6010C ¹	SW846 3010A ²
Iron	13800	70	ug/l	1	05/07/14	05/08/14 KV	SW846 6010C ¹	SW846 3010A ²
Magnesium	58800	200	ug/l	1	05/07/14	05/08/14 KV	SW846 6010C ¹	SW846 3010A ²
Manganese	1500	5.0	ug/l	1	05/07/14	05/08/14 KV	SW846 6010C ¹	SW846 3010A ²
Potassium	4790	1000	ug/l	1	05/07/14	05/08/14 KV	SW846 6010C ¹	SW846 3010A ²
Selenium	< 50	50	ug/l	1	05/07/14	05/08/14 KV	SW846 6010C ¹	SW846 3010A ²
Sodium	83800	400	ug/l	1	05/07/14	05/08/14 KV	SW846 6010C ¹	SW846 3010A ²

(1) Instrument QC Batch: MA4744

(2) Prep QC Batch: MP12863

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-1	Date Sampled: 05/05/14
Lab Sample ID: D57430-1	Date Received: 05/06/14
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: CORCCOGJ: Knight Property Quarterly Sampling (011.1712)	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate as CaC	773	5.0	mg/l	1	05/12/14	JD	SM 2320B-2011
Alkalinity, Carbonate	< 5.0	5.0	mg/l	1	05/12/14	JD	SM 2320B-2011
Alkalinity, Total as CaCO ₃	773	5.0	mg/l	1	05/12/14	JD	SM 2320B-2011
BOD, 5 Day	14.0	1.0	mg/l	1	05/07/14 12:45	RW	SM 5210B-2011
Bromide ^a	< 0.10	0.10	mg/l	2	05/06/14 14:15	SK	EPA 300.0/SW846 9056
Chemical Oxygen Demand	36.3	10	mg/l	1	05/07/14	JD	SM 5220D-2011
Chloride	9.6	1.0	mg/l	2	05/06/14 14:15	SK	EPA 300.0/SW846 9056
Nitrogen, Nitrate	2.2	0.10	mg/l	10	05/06/14 20:11	SK	EPA 300.0/SW846 9056
Nitrogen, Nitrite	0.098	0.0080	mg/l	2	05/06/14 14:15	SK	EPA 300.0/SW846 9056
Phosphate, Ortho	0.33	0.10	mg/l	2	05/06/14 14:15	SK	EPA 300.0/SW846 9056
Phosphorus, Total	40.8	1.0	mg/l	100	05/12/14	BF	HACH8190/SM4500P-B/E
Solids, Total Dissolved	636	10	mg/l	1	05/08/14	JD	SM 2540C-2011
Sulfate	17.4	1.0	mg/l	2	05/06/14 14:15	SK	EPA 300.0/SW846 9056
Total Organic Carbon	12.2	1.0	mg/l	1	05/07/14 17:51	GH	SM 5310B-2011
pH	7.38		su	1	05/07/14 13:10	SK	SM4500HB+ -2011/9040C

(a) Elevated detection limit due to matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-2A	Date Sampled:	05/05/14
Lab Sample ID:	D57430-2	Date Received:	05/06/14
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	CORCCOGJ: Knight Property Quarterly Sampling (011.1712)		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G119371.D	1	05/08/14	DC	05/08/14	OP9869	E1G1316
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	0.49	ug/l	
208-96-8	Acenaphthylene	ND	4.8	0.48	ug/l	
120-12-7	Anthracene	ND	4.8	0.48	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	0.48	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.48	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	0.48	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	0.48	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	0.48	ug/l	
218-01-9	Chrysene	ND	4.8	0.48	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	0.48	ug/l	
206-44-0	Fluoranthene	ND	4.8	0.48	ug/l	
86-73-7	Fluorene	ND	4.8	0.48	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	0.54	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	0.48	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	0.48	ug/l	
91-20-3	Naphthalene	ND	4.8	0.48	ug/l	
85-01-8	Phenanthrene	ND	4.8	0.48	ug/l	
129-00-0	Pyrene	ND	4.8	0.48	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	70%		25-130%
321-60-8	2-Fluorobiphenyl	75%		30-130%
1718-51-0	Terphenyl-d14	68%		19-140%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-2A	Date Sampled:	05/05/14
Lab Sample ID:	D57430-2	Date Received:	05/06/14
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8015B		
Project:	CORCCOGJ: Knight Property Quarterly Sampling (011.1712)		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	GA21708.D	1	05/06/14	EV	n/a	n/a	GGA1221
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	0.20	0.050	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	92%		60-140%		

(a) The pH of the sample was > 2 at time of analysis.

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-2A	
Lab Sample ID:	D57430-2	Date Sampled: 05/05/14
Matrix:	AQ - Ground Water	Date Received: 05/06/14
Method:	SW846 8021B	Percent Solids: n/a
Project:	CORCCOGJ: Knight Property Quarterly Sampling (011.1712)	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	TA21708.D	1	05/06/14	EV	n/a	n/a	GTA1221
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	104%		60-140%

(a) The pH of the sample was > 2 at time of analysis.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-2A	Date Sampled:	05/05/14
Lab Sample ID:	D57430-2	Date Received:	05/06/14
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846-8015B SW846 3510C		
Project:	CORCCOGJ: Knight Property Quarterly Sampling (011.1712)		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FI12411.D	1	05/07/14	JS	05/07/14	OP9868	GFI774
Run #2							

	Initial Volume	Final Volume
Run #1	1060 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	0.19	0.17	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	82%		10-130%		

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-2A	Date Sampled: 05/05/14
Lab Sample ID: D57430-2	Date Received: 05/06/14
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: CORCCOGJ: Knight Property Quarterly Sampling (011.1712)	

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	154000	400	ug/l	1	05/07/14	05/08/14 KV	SW846 6010C ¹	SW846 3010A ²
Iron	18700	70	ug/l	1	05/07/14	05/08/14 KV	SW846 6010C ¹	SW846 3010A ²
Magnesium	68500	200	ug/l	1	05/07/14	05/08/14 KV	SW846 6010C ¹	SW846 3010A ²
Manganese	1720	5.0	ug/l	1	05/07/14	05/08/14 KV	SW846 6010C ¹	SW846 3010A ²
Potassium	5990	1000	ug/l	1	05/07/14	05/08/14 KV	SW846 6010C ¹	SW846 3010A ²
Selenium	< 50	50	ug/l	1	05/07/14	05/08/14 KV	SW846 6010C ¹	SW846 3010A ²
Sodium	98200	400	ug/l	1	05/07/14	05/08/14 KV	SW846 6010C ¹	SW846 3010A ²

(1) Instrument QC Batch: MA4744

(2) Prep QC Batch: MP12863

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-2A	Date Sampled: 05/05/14
Lab Sample ID: D57430-2	Date Received: 05/06/14
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: CORCCOGJ: Knight Property Quarterly Sampling (011.1712)	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate as CaC	509	5.0	mg/l	1	05/12/14	JD	SM 2320B-2011
Alkalinity, Carbonate	< 5.0	5.0	mg/l	1	05/12/14	JD	SM 2320B-2011
Alkalinity, Total as CaCO ₃	509	5.0	mg/l	1	05/12/14	JD	SM 2320B-2011
BOD, 5 Day	3.1	1.0	mg/l	1	05/07/14 12:45	RW	SM 5210B-2011
Bromide ^a	< 0.10	0.10	mg/l	2	05/06/14 14:28	SK	EPA 300.0/SW846 9056
Chemical Oxygen Demand	14.6	10	mg/l	1	05/07/14	JD	SM 5220D-2011
Chloride	20.7	1.0	mg/l	2	05/06/14 14:28	SK	EPA 300.0/SW846 9056
Nitrogen, Nitrate	0.042	0.020	mg/l	2	05/06/14 14:28	SK	EPA 300.0/SW846 9056
Nitrogen, Nitrite ^a	< 0.0080	0.0080	mg/l	2	05/06/14 14:28	SK	EPA 300.0/SW846 9056
Phosphate, Ortho ^a	< 0.10	0.10	mg/l	2	05/06/14 14:28	SK	EPA 300.0/SW846 9056
Phosphorus, Total	0.85	0.010	mg/l	1	05/12/14	BF	HACH8190/SM4500P-B/E
Solids, Total Dissolved	692	10	mg/l	1	05/08/14	JD	SM 2540C-2011
Sulfate	78.8	2.5	mg/l	5	05/06/14 20:50	SK	EPA 300.0/SW846 9056
Total Organic Carbon	4.3	1.0	mg/l	1	05/07/14 18:04	GH	SM 5310B-2011
pH	7.58		su	1	05/07/14 13:10	SK	SM4500HB+ -2011/9040C

(a) Elevated detection limit due to matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-3	Date Sampled:	05/05/14
Lab Sample ID:	D57430-3	Date Received:	05/06/14
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	CORCCOGJ: Knight Property Quarterly Sampling (011.1712)		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G119372.D	1	05/08/14	DC	05/08/14	OP9869	E1G1316
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	0.49	ug/l	
208-96-8	Acenaphthylene	ND	4.8	0.48	ug/l	
120-12-7	Anthracene	ND	4.8	0.48	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	0.48	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.48	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	0.48	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	0.48	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	0.48	ug/l	
218-01-9	Chrysene	ND	4.8	0.48	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	0.48	ug/l	
206-44-0	Fluoranthene	ND	4.8	0.48	ug/l	
86-73-7	Fluorene	ND	4.8	0.48	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	0.54	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	0.48	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	0.48	ug/l	
91-20-3	Naphthalene	ND	4.8	0.48	ug/l	
85-01-8	Phenanthrene	ND	4.8	0.48	ug/l	
129-00-0	Pyrene	ND	4.8	0.48	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	62%		25-130%
321-60-8	2-Fluorobiphenyl	67%		30-130%
1718-51-0	Terphenyl-d14	63%		19-140%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-3	Date Sampled:	05/05/14
Lab Sample ID:	D57430-3	Date Received:	05/06/14
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8015B		
Project:	CORCCOGJ: Knight Property Quarterly Sampling (011.1712)		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	GA21709.D	1	05/06/14	EV	n/a	n/a	GGA1221
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	0.20	0.050	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	92%		60-140%		

(a) The pH of the sample was > 2 at time of analysis.

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-3	Date Sampled:	05/05/14
Lab Sample ID:	D57430-3	Date Received:	05/06/14
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8021B		
Project:	CORCCOGJ: Knight Property Quarterly Sampling (011.1712)		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	TA21709.D	1	05/06/14	EV	n/a	n/a	GTA1221
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	102%		60-140%

(a) The pH of the sample was > 2 at time of analysis.

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-3	Date Sampled:	05/05/14
Lab Sample ID:	D57430-3	Date Received:	05/06/14
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846-8015B SW846 3510C		
Project:	CORCCOGJ: Knight Property Quarterly Sampling (011.1712)		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FI12413.D	1	05/07/14	JS	05/07/14	OP9868	GF1774
Run #2							

	Initial Volume	Final Volume
Run #1	1060 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	0.19	0.17	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	93%		10-130%		

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-3	Date Sampled: 05/05/14
Lab Sample ID: D57430-3	Date Received: 05/06/14
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: CORCCOGJ: Knight Property Quarterly Sampling (011.1712)	

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	119000	400	ug/l	1	05/07/14	05/08/14 KV	SW846 6010C ¹	SW846 3010A ²
Iron	13900	70	ug/l	1	05/07/14	05/08/14 KV	SW846 6010C ¹	SW846 3010A ²
Magnesium	53100	200	ug/l	1	05/07/14	05/08/14 KV	SW846 6010C ¹	SW846 3010A ²
Manganese	1430	5.0	ug/l	1	05/07/14	05/08/14 KV	SW846 6010C ¹	SW846 3010A ²
Potassium	4800	1000	ug/l	1	05/07/14	05/08/14 KV	SW846 6010C ¹	SW846 3010A ²
Selenium	< 50	50	ug/l	1	05/07/14	05/08/14 KV	SW846 6010C ¹	SW846 3010A ²
Sodium	102000	400	ug/l	1	05/07/14	05/08/14 KV	SW846 6010C ¹	SW846 3010A ²

(1) Instrument QC Batch: MA4744

(2) Prep QC Batch: MP12863

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-3	Date Sampled: 05/05/14
Lab Sample ID: D57430-3	Date Received: 05/06/14
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: CORCCOGJ: Knight Property Quarterly Sampling (011.1712)	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate as CaC	463	5.0	mg/l	1	05/12/14	JD	SM 2320B-2011
Alkalinity, Carbonate	< 5.0	5.0	mg/l	1	05/12/14	JD	SM 2320B-2011
Alkalinity, Total as CaCO ₃	463	5.0	mg/l	1	05/12/14	JD	SM 2320B-2011
BOD, 5 Day	1.9	1.0	mg/l	1	05/07/14 12:45	RW	SM 5210B-2011
Bromide	0.11	0.10	mg/l	2	05/06/14 14:41	SK	EPA 300.0/SW846 9056
Chemical Oxygen Demand	12.8	10	mg/l	1	05/07/14	JD	SM 5220D-2011
Chloride	36.5	1.0	mg/l	2	05/06/14 14:41	SK	EPA 300.0/SW846 9056
Nitrogen, Nitrate ^a	< 0.020	0.020	mg/l	2	05/06/14 14:41	SK	EPA 300.0/SW846 9056
Nitrogen, Nitrite ^a	< 0.0080	0.0080	mg/l	2	05/06/14 14:41	SK	EPA 300.0/SW846 9056
Phosphate, Ortho ^a	< 0.10	0.10	mg/l	2	05/06/14 14:41	SK	EPA 300.0/SW846 9056
Phosphorus, Total	0.47	0.010	mg/l	1	05/12/14	BF	HACH8190/SM4500P-B/E
Solids, Total Dissolved	690	10	mg/l	1	05/08/14	JD	SM 2540C-2011
Sulfate	89.1	2.5	mg/l	5	05/06/14 21:03	SK	EPA 300.0/SW846 9056
Total Organic Carbon	4.5	1.0	mg/l	1	05/07/14 18:16	GH	SM 5310B-2011
pH	7.66		su	1	05/07/14 13:10	SK	SM4500HB+ -2011/9040C

(a) Elevated detection limit due to matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-4	Date Sampled:	05/05/14
Lab Sample ID:	D57430-4	Date Received:	05/06/14
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	CORCCOGJ: Knight Property Quarterly Sampling (011.1712)		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G119373.D	1	05/08/14	DC	05/08/14	OP9869	E1G1316
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	0.49	ug/l	
208-96-8	Acenaphthylene	ND	4.8	0.48	ug/l	
120-12-7	Anthracene	ND	4.8	0.48	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	0.48	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.48	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	0.48	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	0.48	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	0.48	ug/l	
218-01-9	Chrysene	ND	4.8	0.48	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	0.48	ug/l	
206-44-0	Fluoranthene	ND	4.8	0.48	ug/l	
86-73-7	Fluorene	ND	4.8	0.48	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	0.54	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	0.48	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	0.48	ug/l	
91-20-3	Naphthalene	ND	4.8	0.48	ug/l	
85-01-8	Phenanthrene	ND	4.8	0.48	ug/l	
129-00-0	Pyrene	ND	4.8	0.48	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	67%		25-130%
321-60-8	2-Fluorobiphenyl	69%		30-130%
1718-51-0	Terphenyl-d14	61%		19-140%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-4	Date Sampled:	05/05/14
Lab Sample ID:	D57430-4	Date Received:	05/06/14
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8015B		
Project:	CORCCOGJ: Knight Property Quarterly Sampling (011.1712)		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	GA21710.D	1	05/06/14	EV	n/a	n/a	GGA1221
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	0.20	0.050	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	91%		60-140%		

(a) The pH of the sample was > 2 at time of analysis.

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-4	
Lab Sample ID:	D57430-4	Date Sampled: 05/05/14
Matrix:	AQ - Ground Water	Date Received: 05/06/14
Method:	SW846 8021B	Percent Solids: n/a
Project:	CORCCOGJ: Knight Property Quarterly Sampling (011.1712)	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	TA21710.D	1	05/06/14	EV	n/a	n/a	GTA1221
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	102%		60-140%

(a) The pH of the sample was > 2 at time of analysis.

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID:	MW-4	Date Sampled:	05/05/14
Lab Sample ID:	D57430-4	Date Received:	05/06/14
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846-8015B SW846 3510C		
Project:	CORCCOGJ: Knight Property Quarterly Sampling (011.1712)		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FI12415.D	1	05/07/14	JS	05/07/14	OP9868	GF1774
Run #2							

	Initial Volume	Final Volume
Run #1	1060 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	0.19	0.17	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	80%		10-130%		

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-4	Date Sampled: 05/05/14
Lab Sample ID: D57430-4	Date Received: 05/06/14
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: CORCCOGJ: Knight Property Quarterly Sampling (011.1712)	

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	139000	400	ug/l	1	05/07/14	05/08/14 KV	SW846 6010C ¹	SW846 3010A ²
Iron	1380	70	ug/l	1	05/07/14	05/08/14 KV	SW846 6010C ¹	SW846 3010A ²
Magnesium	59700	200	ug/l	1	05/07/14	05/08/14 KV	SW846 6010C ¹	SW846 3010A ²
Manganese	327	5.0	ug/l	1	05/07/14	05/08/14 KV	SW846 6010C ¹	SW846 3010A ²
Potassium	4010	1000	ug/l	1	05/07/14	05/08/14 KV	SW846 6010C ¹	SW846 3010A ²
Selenium	< 50	50	ug/l	1	05/07/14	05/08/14 KV	SW846 6010C ¹	SW846 3010A ²
Sodium	69500	400	ug/l	1	05/07/14	05/08/14 KV	SW846 6010C ¹	SW846 3010A ²

(1) Instrument QC Batch: MA4744

(2) Prep QC Batch: MP12863

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-4	Date Sampled: 05/05/14
Lab Sample ID: D57430-4	Date Received: 05/06/14
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: CORCCOGJ: Knight Property Quarterly Sampling (011.1712)	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate as CaC	458	5.0	mg/l	1	05/12/14	JD	SM 2320B-2011
Alkalinity, Carbonate	43.1	5.0	mg/l	1	05/12/14	JD	SM 2320B-2011
Alkalinity, Total as CaCO ₃	501	5.0	mg/l	1	05/12/14	JD	SM 2320B-2011
BOD, 5 Day	< 1.0	1.0	mg/l	1	05/07/14 12:45	RW	SM 5210B-2011
Bromide ^a	< 0.10	0.10	mg/l	2	05/06/14 14:54	SK	EPA 300.0/SW846 9056
Chemical Oxygen Demand	16.0	10	mg/l	1	05/07/14	JD	SM 5220D-2011
Chloride	5.7	1.0	mg/l	2	05/06/14 14:54	SK	EPA 300.0/SW846 9056
Nitrogen, Nitrate	0.18	0.020	mg/l	2	05/06/14 14:54	SK	EPA 300.0/SW846 9056
Nitrogen, Nitrite	0.015	0.0080	mg/l	2	05/06/14 14:54	SK	EPA 300.0/SW846 9056
Phosphate, Ortho	0.41	0.10	mg/l	2	05/06/14 14:54	SK	EPA 300.0/SW846 9056
Phosphorus, Total	12.2	0.50	mg/l	50	05/12/14	BF	HACH8190/SM4500P-B/E
Solids, Total Dissolved	538	10	mg/l	1	05/08/14	JD	SM 2540C-2011
Sulfate	55.8	1.0	mg/l	2	05/06/14 14:54	SK	EPA 300.0/SW846 9056
Total Organic Carbon	4.8	1.0	mg/l	1	05/07/14 18:27	GH	SM 5310B-2011
pH	8.56		su	1	05/07/14 13:10	SK	SM4500HB+ -2011/9040C

(a) Elevated detection limit due to matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-5	
Lab Sample ID:	D57430-5	Date Sampled: 05/05/14
Matrix:	AQ - Ground Water	Date Received: 05/06/14
Method:	SW846 8270C SW846 3510C	Percent Solids: n/a
Project:	CORCCOGJ: Knight Property Quarterly Sampling (011.1712)	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G119374.D	1	05/08/14	DC	05/08/14	OP9869	E1G1316
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	0.49	ug/l	
208-96-8	Acenaphthylene	ND	4.8	0.48	ug/l	
120-12-7	Anthracene	ND	4.8	0.48	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	0.48	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.48	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	0.48	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	0.48	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	0.48	ug/l	
218-01-9	Chrysene	ND	4.8	0.48	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	0.48	ug/l	
206-44-0	Fluoranthene	ND	4.8	0.48	ug/l	
86-73-7	Fluorene	ND	4.8	0.48	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	0.54	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	0.48	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	0.48	ug/l	
91-20-3	Naphthalene	ND	4.8	0.48	ug/l	
85-01-8	Phenanthrene	ND	4.8	0.48	ug/l	
129-00-0	Pyrene	ND	4.8	0.48	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	65%		25-130%
321-60-8	2-Fluorobiphenyl	69%		30-130%
1718-51-0	Terphenyl-d14	65%		19-140%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-5	Date Sampled:	05/05/14
Lab Sample ID:	D57430-5	Date Received:	05/06/14
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8015B		
Project:	CORCCOGJ: Knight Property Quarterly Sampling (011.1712)		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	GA21711.D	1	05/06/14	EV	n/a	n/a	GGA1221
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	0.20	0.050	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	90%		60-140%		

(a) The pH of the sample was > 2 at time of analysis.

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-5	Date Sampled:	05/05/14
Lab Sample ID:	D57430-5	Date Received:	05/06/14
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8021B		
Project:	CORCCOGJ: Knight Property Quarterly Sampling (011.1712)		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	TA21711.D	1	05/06/14	EV	n/a	n/a	GTA1221
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	102%		60-140%

(a) The pH of the sample was > 2 at time of analysis.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID:	MW-5	Date Sampled:	05/05/14
Lab Sample ID:	D57430-5	Date Received:	05/06/14
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846-8015B SW846 3510C		
Project:	CORCCOGJ: Knight Property Quarterly Sampling (011.1712)		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FI12417.D	1	05/07/14	JS	05/07/14	OP9868	GF1774
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	0.19	0.17	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	95%		10-130%		

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-5	Date Sampled: 05/05/14
Lab Sample ID: D57430-5	Date Received: 05/06/14
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: CORCCOGJ: Knight Property Quarterly Sampling (011.1712)	

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	112000	400	ug/l	1	05/07/14	05/08/14 KV	SW846 6010C ¹	SW846 3010A ²
Iron	12600	70	ug/l	1	05/07/14	05/08/14 KV	SW846 6010C ¹	SW846 3010A ²
Magnesium	50500	200	ug/l	1	05/07/14	05/08/14 KV	SW846 6010C ¹	SW846 3010A ²
Manganese	754	5.0	ug/l	1	05/07/14	05/08/14 KV	SW846 6010C ¹	SW846 3010A ²
Potassium	4120	1000	ug/l	1	05/07/14	05/08/14 KV	SW846 6010C ¹	SW846 3010A ²
Selenium	< 50	50	ug/l	1	05/07/14	05/08/14 KV	SW846 6010C ¹	SW846 3010A ²
Sodium	89400	400	ug/l	1	05/07/14	05/08/14 KV	SW846 6010C ¹	SW846 3010A ²

(1) Instrument QC Batch: MA4744

(2) Prep QC Batch: MP12863

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-5	Date Sampled: 05/05/14
Lab Sample ID: D57430-5	Date Received: 05/06/14
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: CORCCOGJ: Knight Property Quarterly Sampling (011.1712)	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate as CaC	457	5.0	mg/l	1	05/12/14	JD	SM 2320B-2011
Alkalinity, Carbonate	63.1	5.0	mg/l	1	05/12/14	JD	SM 2320B-2011
Alkalinity, Total as CaCO ₃	457	5.0	mg/l	1	05/12/14	JD	SM 2320B-2011
BOD, 5 Day	4.5	1.0	mg/l	1	05/07/14 12:45	RW	SM 5210B-2011
Bromide ^a	< 0.10	0.10	mg/l	2	05/06/14 15:34	SK	EPA 300.0/SW846 9056
Chemical Oxygen Demand	11.8	10	mg/l	1	05/07/14	JD	SM 5220D-2011
Chloride	12.6	1.0	mg/l	2	05/06/14 15:34	SK	EPA 300.0/SW846 9056
Nitrogen, Nitrate ^a	< 0.020	0.020	mg/l	2	05/06/14 15:34	SK	EPA 300.0/SW846 9056
Nitrogen, Nitrite	0.023	0.0080	mg/l	2	05/06/14 15:34	SK	EPA 300.0/SW846 9056
Phosphate, Ortho ^a	< 0.10	0.10	mg/l	2	05/06/14 15:34	SK	EPA 300.0/SW846 9056
Phosphorus, Total	0.37	0.010	mg/l	1	05/12/14	BF	HACH8190/SM4500P-B/E
Solids, Total Dissolved	612	10	mg/l	1	05/08/14	JD	SM 2540C-2011
Sulfate	71.8	2.5	mg/l	5	05/06/14 21:16	SK	EPA 300.0/SW846 9056
Total Organic Carbon	5.6	5.0	mg/l	5	05/07/14 18:40	GH	SM 5310B-2011
pH	7.64		su	1	05/07/14 13:10	SK	SM4500HB+ -2011/9040C

(a) Elevated detection limit due to matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-6	Date Sampled:	05/05/14
Lab Sample ID:	D57430-6	Date Received:	05/06/14
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	CORCCOGJ: Knight Property Quarterly Sampling (011.1712)		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G119375.D	1	05/08/14	DC	05/08/14	OP9869	E1G1316
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	0.49	ug/l	
208-96-8	Acenaphthylene	ND	4.8	0.48	ug/l	
120-12-7	Anthracene	ND	4.8	0.48	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	0.48	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.48	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	0.48	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	0.48	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	0.48	ug/l	
218-01-9	Chrysene	ND	4.8	0.48	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	0.48	ug/l	
206-44-0	Fluoranthene	ND	4.8	0.48	ug/l	
86-73-7	Fluorene	ND	4.8	0.48	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	0.54	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	0.48	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	0.48	ug/l	
91-20-3	Naphthalene	ND	4.8	0.48	ug/l	
85-01-8	Phenanthrene	ND	4.8	0.48	ug/l	
129-00-0	Pyrene	ND	4.8	0.48	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	59%		25-130%
321-60-8	2-Fluorobiphenyl	65%		30-130%
1718-51-0	Terphenyl-d14	64%		19-140%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-6	Date Sampled:	05/05/14
Lab Sample ID:	D57430-6	Date Received:	05/06/14
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8015B		
Project:	CORCCOGJ: Knight Property Quarterly Sampling (011.1712)		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	GA21714.D	1	05/07/14	EV	n/a	n/a	GGA1221
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	0.20	0.050	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	91%		60-140%		

(a) The pH of the sample was > 2 at time of analysis.

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-6	Date Sampled:	05/05/14
Lab Sample ID:	D57430-6	Date Received:	05/06/14
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8021B		
Project:	CORCCOGJ: Knight Property Quarterly Sampling (011.1712)		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	TA21714.D	1	05/07/14	EV	n/a	n/a	GTA1221
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	101%		60-140%

(a) The pH of the sample was > 2 at time of analysis.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-6	Date Sampled:	05/05/14
Lab Sample ID:	D57430-6	Date Received:	05/06/14
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846-8015B SW846 3510C		
Project:	CORCCOGJ: Knight Property Quarterly Sampling (011.1712)		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FI12419.D	1	05/07/14	JS	05/07/14	OP9868	GF1774
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	0.19	0.17	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	82%		10-130%		

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-6	Date Sampled: 05/05/14
Lab Sample ID: D57430-6	Date Received: 05/06/14
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: CORCCOGJ: Knight Property Quarterly Sampling (011.1712)	

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	94000	400	ug/l	1	05/07/14	05/08/14 KV	SW846 6010C ¹	SW846 3010A ²
Iron	14500	70	ug/l	1	05/07/14	05/08/14 KV	SW846 6010C ¹	SW846 3010A ²
Magnesium	56000	200	ug/l	1	05/07/14	05/08/14 KV	SW846 6010C ¹	SW846 3010A ²
Manganese	795	5.0	ug/l	1	05/07/14	05/08/14 KV	SW846 6010C ¹	SW846 3010A ²
Potassium	4010	1000	ug/l	1	05/07/14	05/08/14 KV	SW846 6010C ¹	SW846 3010A ²
Selenium	< 50	50	ug/l	1	05/07/14	05/08/14 KV	SW846 6010C ¹	SW846 3010A ²
Sodium	85500	400	ug/l	1	05/07/14	05/08/14 KV	SW846 6010C ¹	SW846 3010A ²

(1) Instrument QC Batch: MA4744

(2) Prep QC Batch: MP12863

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-6	Date Sampled: 05/05/14
Lab Sample ID: D57430-6	Date Received: 05/06/14
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: CORCCOGJ: Knight Property Quarterly Sampling (011.1712)	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate as CaC	478	5.0	mg/l	1	05/12/14	JD	SM 2320B-2011
Alkalinity, Carbonate	< 5.0	5.0	mg/l	1	05/12/14	JD	SM 2320B-2011
Alkalinity, Total as CaCO ₃	478	5.0	mg/l	1	05/12/14	JD	SM 2320B-2011
BOD, 5 Day	1.9	1.0	mg/l	1	05/07/14 12:45	RW	SM 5210B-2011
Bromide ^a	< 0.10	0.10	mg/l	2	05/06/14 15:47	SK	EPA 300.0/SW846 9056
Chemical Oxygen Demand	18.5	10	mg/l	1	05/07/14	JD	SM 5220D-2011
Chloride	9.6	1.0	mg/l	2	05/06/14 15:47	SK	EPA 300.0/SW846 9056
Nitrogen, Nitrate	0.024	0.020	mg/l	2	05/06/14 15:47	SK	EPA 300.0/SW846 9056
Nitrogen, Nitrite ^a	< 0.0080	0.0080	mg/l	2	05/06/14 15:47	SK	EPA 300.0/SW846 9056
Phosphate, Ortho ^a	< 0.10	0.10	mg/l	2	05/06/14 15:47	SK	EPA 300.0/SW846 9056
Phosphorus, Total	0.22	0.050	mg/l	5	05/12/14	BF	HACH8190/SM4500P-B/E
Solids, Total Dissolved	568	10	mg/l	1	05/08/14	JD	SM 2540C-2011
Sulfate	36.2	1.0	mg/l	2	05/06/14 15:47	SK	EPA 300.0/SW846 9056
Total Organic Carbon	4.3	1.0	mg/l	1	05/09/14 12:21	GH	SM 5310B-2011
pH	7.65		su	1	05/07/14 13:10	SK	SM4500HB+ -2011/9040C

(a) Elevated detection limit due to matrix interference.

RL = Reporting Limit

Subcontract Lab Data

Report of Analysis



industrial LABORATORIES

Industrial Laboratories is your independent,
third-party analytical testing laboratory

To: **Accutest Mountain States (AMS)**
4036 Youngfield St.

Wheat Ridge CO 80033

Attn: Renea Jackson

TEST REPORT

ACCUTEST - M

Date Received: 5/6/2014

Date Reported: 5/9/2014

PO Number: D57430X

Note: Sample test procedures conform to EPA 40CFR136 requirements.

Lab No.	Sample Description	Test Method	Result	Units	MDL	Analysis Date/By
140506016-01A	D57430X-1, 5/5/14, 10:55am	* Heterotrophic Plate Count SM 9215B	26000	CFU/mL		GL 5/7/2014
140506016-02A	D57430X-2, 5/5/14, 11:20am	* Heterotrophic Plate Count SM 9215B	8400	CFU/mL		GL 5/7/2014
140506016-03A	D57430X-3, 5/5/14, 10:40am	* Heterotrophic Plate Count SM 9215B	1600	CFU/mL		GL 5/7/2014
140506016-04A	D57430X-4, 5/5/14, 12:15pm	* Heterotrophic Plate Count SM 9215B	2100	CFU/mL		GL 5/7/2014
140506016-05A	D57430X-5, 5/5/14, 10:00am	* Heterotrophic Plate Count SM 9215B	14000	CFU/mL		GL 5/7/2014
140506016-06A	D57430X-6, 5/5/14, 9:05am	* Heterotrophic Plate Count SM 9215B	1700	CFU/mL		GL 5/7/2014


* = Scope Analysis

= Subcontracted Analysis

MDL = Method Detection Limit

ND = Not Detected at the Method Detection Limit

Page: 1 of 1



Department Manager

4046 Youngfield Street • Wheat Ridge, Colorado 80033 • (303) 287-9691 • (303) 287-0964 FAX • www.industriallabs.net

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THE CUSTODIAN: CHAIN OF CUSTODY

4036 Youngfield St., Wheat Ridge, CO 80033
303-425-6021 FAX: 303-425-6854

Accutest Job #: **D57430X**

Accutest Quote #:	0
-------------------	---

AMS P.O. #:

Project No.:

Client Information		Subcontract Laboratory Information		Analytical Information	
Name Accutest Mountain States (AMS)		Name Industrial Lab			
Address 4036 Youngfield St.		Address 4046 Youngfield St.			
City Wheat Ridge,	State CO	City Wheat Ridge	State CO		
Zip 80033	Zip 80033				
Send Report to: Scott Heideman		Contact: Sample Management			
Any questions contact: Renea Rooks					
Phone/Fax #: (303) 425-6021; (303) 425-6854		Phone: (303) 287-9691			
Turnaround Information		Data Deliverable Information		Comments / Remarks	
<input checked="" type="checkbox"/> 10 Business Day Standard <input type="checkbox"/> Other _____ (Days)		Approved By: _____		Please use Colorado regulations and RLS.	
10 Day Turnaround Hardcopy, RUSH is FAX Data unless previously approved.		Date & Time: _____			
Relinquished by: 1		Received By: 1		Seal #: _____	
Date & Time: 5-6-14		Date & Time: 10/6/14		Headspace: Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>	
Relinquished by: 2		Received By: 2		Preserved where applicable: <input type="checkbox"/>	
Date & Time: _____		Date & Time: _____		Temperature °C _____	
Relinquished by: 3		Received By: 3		On Ice <input type="checkbox"/>	
Date & Time: _____		Date & Time: _____			

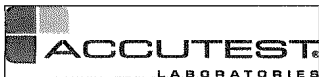
Misc. Forms

5

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody



WPX CHAIN OF CUSTODY

PAGE ____ OF ____

4036 Youngfield Street, Wheat Ridge, CO 80033
TEL: 303-425-6021 FAX: 303-425-6854
www.accutest.com

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # D57430
Client / Reporting Information	
Company Name: Olsson Associates	
Street Address: 760 Horizon Drive Suite 102	
City: Grand Junction, CO 81506	
Project Contact: Tim Dobransky Email: tdobransky@olssonassociates.com	
Phone #: 970-263-7800	
Sampler(s) Name(s): Kelsie Bltz, Jason Mclary	
Project Information	
Project Name: CORCCOGJ: Knight Property Quarterly Sampling (011.1712)	
Street: _____	
City: _____ State: _____	
Billing Information (If different from Report to):	
Company Name: WPX Energy Rocky Mountain, LLC (WILLCOP)	
Street Address: 1058 County Road 215	
City: Parachute, CO 81635	
Client Purchase Order #: NXEEPPARACH	
Project Manager: Leo Braun	
Attention: Leo Braun	
Email Invoices: Leo.Braun@wpxenergy.com	
Requested Analysis (see TEST CODE sheet)	
Matrix Codes	
DW - Drinking Water	
GW - Ground Water	
WW - Wastewater	
SW - Surface Water	
SO - Soil	
SL - Sludge	
SED - Sediment	
OI - Oil	
LIQ - Other Liquid	
AIR - Air	
SOL - Other Solid	
WP - Wipe	
FB - Field Blank	
EB - Equipment Blank	
RB - Rinse Blank	
TB - Trip Blank	
LAB USE ONLY	
GRO/DRO - (8015)	
BTEX - (8021B)	
TOC - (SW9060)	
BOD - (SM5210)	
COD - (SM5220D)	
Anions - (E300.0)*	
Alkalinity Series - (SM2320)	
Total Metals - (SW846)**	
Heterophob Plate Count	
TDS/pH - (SM4500)	
OPO4	

Account Sample #			Field ID / Point of Collection	MEO/HDI / Visi #	Collection		Matrix	# of bottles	HCl	NaOH	Number of preserved Bottles					
				Date	Time	Sampled by					HNO3	H2SO4	NONE	D1 Water	MEDH	ENCORE
			MW-1		5/5/14	1055 JM	GW	18				1	2	15		
			MW-2A		5/5/14	1120 KB	GW	18				1	2	15		
			MW-3		5/5/14	1215 KB	GW	18				1	2	15		
			MW-4		5/5/14	1215 JM	GW	18				1	2	15		
			MW-5		5/5/14	1000 KB	GW	18				1	2	15		
			MW-6		5/5/14	0905 KB	GW	18				1	2	15		

Turnaround Time (Business days)		Data Deliverable Information		Comments / Special Instructions	
<input type="checkbox"/> 5 Business Day Std. (per contract)	Approved By (Accutest PM): / Date:	<input type="checkbox"/> Commercial "A" (Level 1)	<input type="checkbox"/> State Forms Required	Also email final report to: Karolina.Blaney@wpxenergy.com	
<input type="checkbox"/> 3 Day Emergency	JGM 12/6/12	<input type="checkbox"/> Commercial "B" (Level 2)	<input type="checkbox"/> Send Forms to State		
<input type="checkbox"/> 2 Day Emergency		<input type="checkbox"/> COMM BN	<input type="checkbox"/> Report by Fax		
<input type="checkbox"/> 1 Day Emergency		<input type="checkbox"/> COMM BN+	<input checked="" type="checkbox"/> Report by PDF		
Emergency & Rush T/A data available VIA Lablink		Commercial "A" = Results Only Commercial "B" = Results + QC Summary Commercial BN = Results/QC/Narrative (+ chromatograms)		<input type="checkbox"/> EDD Format	
Sample Custody must be documented below each time samples change possession, including courier delivery.					
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
Kelsie Bltz	5/5/14 1320	16 [Signature]	CO →		2 [Signature]
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
Jason Mclary	5/5/14 1320	5 [Signature]	CO		4 [Signature]
Relinquished by:	Date Time:	Received By:	Custody Seal #	Intact	Preserved where applicable
5		5	CO	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
					On Ice <input checked="" type="checkbox"/> Cooler Temp: 2.1

D57430: Chain of Custody

Page 1 of 1

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 1

Job Number: D57430
Account: WILLCOP WPX Energy Rocky Mountain, LLC
Project: CORCCOGJ: Knight Property Quarterly Sampling (011.1712)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP9869-MB	1G119365.D	1	05/08/14	DC	05/08/14	OP9869	E1G1316

The QC reported here applies to the following samples:

Method: SW846 8270C

D57430-1, D57430-2, D57430-3, D57430-4, D57430-5, D57430-6

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.0	0.51	ug/l	
208-96-8	Acenaphthylene	ND	5.0	0.50	ug/l	
120-12-7	Anthracene	ND	5.0	0.50	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	0.50	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	0.50	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	0.50	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	0.50	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	0.50	ug/l	
218-01-9	Chrysene	ND	5.0	0.50	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	0.50	ug/l	
206-44-0	Fluoranthene	ND	5.0	0.50	ug/l	
86-73-7	Fluorene	ND	5.0	0.50	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	0.57	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	0.50	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	0.50	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
85-01-8	Phenanthrene	ND	5.0	0.50	ug/l	
129-00-0	Pyrene	ND	5.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Limits
367-12-4	2-Fluorophenol	65% 10-130%
4165-62-2	Phenol-d5	35% 10-130%
118-79-6	2,4,6-Tribromophenol	99% 10-151%
4165-60-0	Nitrobenzene-d5	84% 25-130%
321-60-8	2-Fluorobiphenyl	89% 30-130%
1718-51-0	Terphenyl-d14	102% 19-140%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

Blank Spike Summary

Page 1 of 1

Job Number: D57430**Account:** WILLCOP WPX Energy Rocky Mountain, LLC**Project:** CORCCOGJ: Knight Property Quarterly Sampling (011.1712)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP9869-BS	1G119366.D	1	05/08/14	DC	05/08/14	OP9869	E1G1316

The QC reported here applies to the following samples:**Method:** SW846 8270C

D57430-1, D57430-2, D57430-3, D57430-4, D57430-5, D57430-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	43.1	86	52-130
208-96-8	Acenaphthylene	50	43.8	88	57-130
120-12-7	Anthracene	50	48.4	97	69-130
56-55-3	Benzo(a)anthracene	50	48.2	96	69-130
205-99-2	Benzo(b)fluoranthene	50	46.9	94	66-130
207-08-9	Benzo(k)fluoranthene	50	50.6	101	66-130
191-24-2	Benzo(g,h,i)perylene	50	53.3	107	70-130
50-32-8	Benzo(a)pyrene	50	48.8	98	69-130
218-01-9	Chrysene	50	48.4	97	69-130
53-70-3	Dibenzo(a,h)anthracene	50	53.0	106	70-130
206-44-0	Fluoranthene	50	48.0	96	69-130
86-73-7	Fluorene	50	44.6	89	61-130
193-39-5	Indeno(1,2,3-cd)pyrene	50	53.0	106	70-130
90-12-0	1-Methylnaphthalene	50	37.7	75	37-130
91-57-6	2-Methylnaphthalene	50	36.8	74	32-130
91-20-3	Naphthalene	50	37.8	76	36-130
85-01-8	Phenanthrene	50	47.4	95	67-130
129-00-0	Pyrene	50	49.3	99	68-130

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	57%	10-130%
4165-62-2	Phenol-d5	36%	10-130%
118-79-6	2,4,6-Tribromophenol	95%	10-151%
4165-60-0	Nitrobenzene-d5	85%	25-130%
321-60-8	2-Fluorobiphenyl	93%	30-130%
1718-51-0	Terphenyl-d14	100%	19-140%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D57430

Account: WILLCOP WPX Energy Rocky Mountain, LLC

Project: CORCCOGJ: Knight Property Quarterly Sampling (011.1712)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP9869-MS	1G119368.D	1	05/08/14	DC	05/08/14	OP9869	E1G1316
OP9869-MSD	1G119369.D	1	05/08/14	DC	05/08/14	OP9869	E1G1316
D57451-4	1G119367.D	1	05/08/14	DC	05/08/14	OP9869	E1G1316

The QC reported here applies to the following samples:

Method: SW846 8270C

D57430-1, D57430-2, D57430-3, D57430-4, D57430-5, D57430-6

CAS No.	Compound	D57451-4 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND	50	40.4	81	50	43.6	87	8	50-130/30
208-96-8	Acenaphthylene	ND	50	41.3	83	50	44.1	88	7	46-130/30
120-12-7	Anthracene	ND	50	48.0	96	50	48.2	96	0	64-130/30
56-55-3	Benzo(a)anthracene	ND	50	48.2	96	50	48.5	97	1	65-130/30
205-99-2	Benzo(b)fluoranthene	ND	50	45.7	91	50	46.0	92	1	57-130/30
207-08-9	Benzo(k)fluoranthene	ND	50	51.5	103	50	51.3	103	0	65-130/30
191-24-2	Benzo(g,h,i)perylene	ND	50	52.1	104	50	51.7	103	1	59-130/30
50-32-8	Benzo(a)pyrene	ND	50	47.8	96	50	48.6	97	2	63-130/30
218-01-9	Chrysene	ND	50	46.9	94	50	48.4	97	3	65-130/30
53-70-3	Dibenzo(a,h)anthracene	ND	50	52.2	104	50	51.6	103	1	60-130/30
206-44-0	Fluoranthene	ND	50	46.6	93	50	48.2	96	3	63-130/30
86-73-7	Fluorene	ND	50	43.7	87	50	46.4	93	6	58-130/30
193-39-5	Indeno(1,2,3-cd)pyrene	ND	50	51.5	103	50	51.2	102	1	61-130/30
90-12-0	1-Methylnaphthalene	ND	50	34.2	68	50	36.9	74	8	30-130/30
91-57-6	2-Methylnaphthalene	ND	50	33.1	66	50	35.9	72	8	32-130/30
91-20-3	Naphthalene	ND	50	34.1	68	50	36.4	73	7	30-139/30
85-01-8	Phenanthrene	ND	50	47.8	96	50	47.7	95	0	63-130/30
129-00-0	Pyrene	ND	50	48.8	98	50	49.1	98	1	65-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D57451-4	Limits
367-12-4	2-Fluorophenol	53%	59%		10-130%
4165-62-2	Phenol-d5	32%	36%		10-130%
118-79-6	2,4,6-Tribromophenol	98%	104%		10-151%
4165-60-0	Nitrobenzene-d5	75%	83%	71%	25-130%
321-60-8	2-Fluorobiphenyl	82%	92%	79%	30-130%
1718-51-0	Terphenyl-d14	97%	97%	102%	19-140%

* = Outside of Control Limits.

GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: D57430
Account: WILLCOP WPX Energy Rocky Mountain, LLC
Project: CORCCOGJ: Knight Property Quarterly Sampling (011.1712)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGA1221-MB	GA21698.D	1	05/06/14	EV	n/a	n/a	GGA1221

The QC reported here applies to the following samples: Method: SW846 8015B

D57430-1, D57430-2, D57430-3, D57430-4, D57430-5, D57430-6

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	0.20	0.050	mg/l	

CAS No.	Surrogate Recoveries	Limits
120-82-1	1,2,4-Trichlorobenzene	93% 60-140%

Method Blank Summary

Page 1 of 1

Job Number: D57430

Account: WILLCOP WPX Energy Rocky Mountain, LLC

Project: CORCCOGJ: Knight Property Quarterly Sampling (011.1712)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GTA1221-MB	TA21698.D	1	05/06/14	EV	n/a	n/a	GTA1221

The QC reported here applies to the following samples:

Method: SW846 8021B

D57430-1, D57430-2, D57430-3, D57430-4, D57430-5, D57430-6

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	2.0	1.0	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Limits
120-82-1	1,2,4-Trichlorobenzene	102% 60-140%

Method Blank Summary

Job Number: D57430
Account: WILLCOP WPX Energy Rocky Mountain, LLC
Project: CORCCOGJ: Knight Property Quarterly Sampling (011.1712)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GTA1222-MB	TA21731.D	1	05/07/14	EV	n/a	n/a	GTA1222

The QC reported here applies to the following samples: Method: SW846 8021B

D57430-1

CAS No.	Compound	Result	RL	MDL	Units	Q
1330-20-7	Xylenes (total)	ND	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Limits
120-82-1	1,2,4-Trichlorobenzene	99% 60-140%

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Blank Spike Summary

Job Number: D57430
Account: WILLCOP WPX Energy Rocky Mountain, LLC
Project: CORCCOGJ: Knight Property Quarterly Sampling (011.1712)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGA1221-BS	GA21699.D	1	05/06/14	EV	n/a	n/a	GGA1221

The QC reported here applies to the following samples: Method: SW846 8015B

D57430-1, D57430-2, D57430-3, D57430-4, D57430-5, D57430-6

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
	TPH-GRO (C6-C10)	2.2	2.07	94	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	101%	60-140%

* = Outside of Control Limits.

Blank Spike Summary

Page 1 of 1

Job Number: D57430

Account: WILLCOP WPX Energy Rocky Mountain, LLC

Project: CORCCOGJ: Knight Property Quarterly Sampling (011.1712)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GTA1221-BS	TA21699.D	1	05/06/14	EV	n/a	n/a	GTA1221

The QC reported here applies to the following samples:

Method: SW846 8021B

D57430-1, D57430-2, D57430-3, D57430-4, D57430-5, D57430-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	27.2	24.8	91	70-130
100-41-4	Ethylbenzene	45.6	44.9	98	70-130
108-88-3	Toluene	212	196	93	70-130
1330-20-7	Xylenes (total)	216	221	102	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	110%	60-140%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: D57430
Account: WILLCOP WPX Energy Rocky Mountain, LLC
Project: CORCCOGJ: Knight Property Quarterly Sampling (011.1712)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GTA1222-BS	TA21732.D	1	05/07/14	EV	n/a	n/a	GTA1222

The QC reported here applies to the following samples: Method: SW846 8021B

D57430-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
1330-20-7	Xylenes (total)	216	217	101	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	106%	60-140%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D57430

Account: WILLCOP WPX Energy Rocky Mountain, LLC

Project: CORCCOGJ: Knight Property Quarterly Sampling (011.1712)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D57430-1MS ^a	GA21701.D	1	05/06/14	EV	n/a	n/a	GGA1221
D57430-1MSD ^a	GA21702.D	1	05/06/14	EV	n/a	n/a	GGA1221
D57430-1 ^a	GA21700.D	1	05/06/14	EV	n/a	n/a	GGA1221

The QC reported here applies to the following samples:

Method: SW846 8015B

D57430-1, D57430-2, D57430-3, D57430-4, D57430-5, D57430-6

CAS No.	Compound	D57430-1 mg/l	Spike Q mg/l	MS mg/l	MS %	Spike mg/l	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	3.07	2.2	4.46	63* ^b	2.2	4.30	56* ^b	4	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D57430-1	Limits
120-82-1	1,2,4-Trichlorobenzene	108%	101%	102%	60-140%

(a) The pH of the sample was > 2 at time of analysis.

(b) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D57430
Account: WILLCOP WPX Energy Rocky Mountain, LLC
Project: CORCCOGJ: Knight Property Quarterly Sampling (011.1712)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D57451-6MS	TA21701.D	1	05/06/14	EV	n/a	n/a	GTA1221
D57451-6MSD	TA21702.D	1	05/06/14	EV	n/a	n/a	GTA1221
D57451-6	TA21700.D	1	05/06/14	EV	n/a	n/a	GTA1221

The QC reported here applies to the following samples:

Method: SW846 8021B

D57430-1, D57430-2, D57430-3, D57430-4, D57430-5, D57430-6

CAS No.	Compound	D57451-6 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	8.4		27.2	32.2	88	27.2	31.1	83	3	55-133/30
100-41-4	Ethylbenzene	ND		45.6	48.1	105	45.6	43.6	96	10	63-130/30
108-88-3	Toluene	5.1		212	193	89	212	187	86	3	70-130/30
1330-20-7	Xylenes (total)	891	E	216	941	23* a	216	921	14* a	2	64-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D57451-6	Limits
120-82-1	1,2,4-Trichlorobenzene	111%	111%	110%	60-140%

(a) Outside control limits due to high level in sample relative to spike amount.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D57430
Account: WILLCOP WPX Energy Rocky Mountain, LLC
Project: CORCCOGJ: Knight Property Quarterly Sampling (011.1712)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D57223-23MS	TA21733.D	1	05/07/14	EV	n/a	n/a	GTA1222
D57223-23MSD	TA21734.D	1	05/07/14	EV	n/a	n/a	GTA1222
D57223-23	TA21736.D	1	05/07/14	EV	n/a	n/a	GTA1222

The QC reported here applies to the following samples: Method: SW846 8021B

D57430-1

CAS No.	Compound	D57223-23 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
1330-20-7	Xylenes (total)	171	216	384	99	216	377	95	2	64-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D57223-23	Limits
120-82-1	1,2,4-Trichlorobenzene	129%	132%	121%	60-140%

* = Outside of Control Limits.

GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 1

Job Number: D57430

Account: WILLCOP WPX Energy Rocky Mountain, LLC

Project: CORCCOGJ: Knight Property Quarterly Sampling (011.1712)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP9868-MB	FI12408.D	1	05/07/14	JS	05/07/14	OP9868	GFI773

The QC reported here applies to the following samples:

Method: SW846-8015B

D57430-1, D57430-2, D57430-3, D57430-4, D57430-5, D57430-6

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	0.20	0.18	mg/l	

CAS No.	Surrogate Recoveries	Limits
84-15-1	o-Terphenyl	65% 10-130%

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Blank Spike Summary

Page 1 of 1

Job Number: D57430

Account: WILLCOP WPX Energy Rocky Mountain, LLC

Project: CORCCOGJ: Knight Property Quarterly Sampling (011.1712)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP9868-BS	FI12410.D	1	05/07/14	JS	05/07/14	OP9868	GFI773

The QC reported here applies to the following samples:

Method: SW846-8015B

D57430-1, D57430-2, D57430-3, D57430-4, D57430-5, D57430-6

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
	TPH-DRO (C10-C28)	5	2.67	53	33-130

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	68%	10-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D57430
Account: WILLCOP WPX Energy Rocky Mountain, LLC
Project: CORCCOGJ: Knight Property Quarterly Sampling (011.1712)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP9868-MS	FI12412.D	1	05/07/14	JS	05/07/14	OP9868	GFI773
OP9868-MSD	FI12414.D	1	05/07/14	JS	05/07/14	OP9868	GFI773
D57451-3	FI12416.D	1	05/07/14	JS	05/07/14	OP9868	GFI773

The QC reported here applies to the following samples:

Method: SW846-8015B

D57430-1, D57430-2, D57430-3, D57430-4, D57430-5, D57430-6

CAS No.	Compound	D57451-3 mg/l	Spike Q mg/l	MS mg/l	MS %	Spike mg/l	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH-DRO (C10-C28)	ND	5	2.62	52	5	2.95	59	12	33-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D57451-3	Limits
84-15-1	o-Terphenyl	78%	79%	45%	10-130%

* = Outside of Control Limits.

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D57430
Account: WILLCOP - WPX Energy Rocky Mountain, LLC
Project: CORCCOGJ: Knight Property Quarterly Sampling (011.1712)

QC Batch ID: MP12863
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 05/07/14

Metal	RL	IDL	MDL	MB raw	final
Aluminum	100	11	41		
Antimony	30	2.1	19		
Arsenic	25	3.8	5.6		
Barium	10	.2	1.4		
Boron	50	.8	6.6		
Cadmium	10	.2	.36		
Calcium	400	2.4	41	9.5	<400
Chromium	10	.3	.4		
Cobalt	5.0	.5	.57		
Copper	10	.8	1.9		
Iron	70	1.5	9.5	22.7	<70
Lithium	5.0	.4	2.7		
Magnesium	200	6.8	19	12.1	<200
Manganese	5.0	.5	.46	0.70	<5.0
Molybdenum	10	.4	.84		
Nickel	30	.5	.87		
Phosphorus	100	15	20		
Potassium	1000	99	270	11.8	<1000
Selenium	50	7.1	11	0.40	<50
Silicon	50	4.7	5.2		
Silver	30	.3	.6		
Sodium	400	7.3	170	21.0	<400
Strontium	5.0	.01	.12		
Thallium	10	1.8	4		
Tin	50	12	16		
Titanium	10	.1	2.1		
Uranium	50	2.9	5.5		
Vanadium	10	.4	.4		
Zinc	30	.4	3.2		

Associated samples MP12863: D57430-1, D57430-2, D57430-3, D57430-4, D57430-5, D57430-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D57430

Account: WILLCOF - WPX Energy Rocky Mountain, LLC

Project: CORCCOGJ: Knight Property Quarterly Sampling (011.1712)

QC Batch ID: MP12863

Methods: SW846 6010C

Matrix Type: AQUEOUS

Units: ug/l

Prep Date:

05/07/14

Metal	D57409-1 Original MS	Spikelot ICPAL2	% Rec	QC Limits
Aluminum				
Antimony	anr			
Arsenic	anr			
Barium	anr			
Boron	anr			
Cadmium	anr			
Calcium	78500	103000	25000	98.0 75-125
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	216	4830	5000	92.3 75-125
Lithium				
Magnesium	120000	140000	25000	80.0 75-125
Manganese	117	604	500	97.4 75-125
Molybdenum				
Nickel	anr			
Phosphorus				
Potassium	7530	34800	25000	115.0 75-125
Selenium	25.2	1470	1000	144.5N(a) 75-125
Silicon				
Silver	anr			
Strontium				
Thallium	anr			
Tin				
Titanium				
Uranium				
Vanadium	anr			
Zinc	anr			

Associated samples MP12863: D57430-1, D57430-2, D57430-3, D57430-4, D57430-5, D57430-6

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) Spike recovery indicates possible matrix interference.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D57430
 Account: WILLCOF - WPX Energy Rocky Mountain, LLC
 Project: CORCCOGJ: Knight Property Quarterly Sampling (011.1712)

QC Batch ID: MP12863
 Matrix Type: AQUEOUS

Methods: SW846 6010C
 Units: ug/l

Prep Date: 05/07/14

Metal	D57409-1 Original	MSD	Spikelot ICPALL2	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony	anr					
Arsenic	anr					
Barium	anr					
Boron	anr					
Cadmium	anr					
Calcium	78500	106000	25000	110.0	2.9	20
Chromium	anr					
Cobalt	anr					
Copper	anr					
Iron	216	4850	5000	92.7	0.4	20
Lithium						
Magnesium	120000	142000	25000	88.0	1.4	20
Manganese	117	611	500	98.8	1.2	20
Molybdenum						
Nickel	anr					
Phosphorus						
Potassium	7530	35300	25000	117.0	1.4	20
Selenium	25.2	1490	1000	146.5N(a)	1.4	20
Silicon						
Silver	anr					
Strontium						
Thallium	anr					
Tin						
Titanium						
Uranium						
Vanadium	anr					
Zinc	anr					

Associated samples MP12863: D57430-1, D57430-2, D57430-3, D57430-4, D57430-5, D57430-6

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested
 (a) Spike recovery indicates possible matrix interference.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D57430

Account: WILLCOP - WPX Energy Rocky Mountain, LLC

Project: CORCCOGJ: Knight Property Quarterly Sampling (011.1712)

QC Batch ID: MP12863

Methods: SW846 6010C

Matrix Type: AQUEOUS

Units: ug/l

Prep Date:

05/07/14

Metal	BSP Result	Spikelot ICPALL2	% Rec	QC Limits
Aluminum				
Antimony	anr			
Arsenic	anr			
Barium	anr			
Boron	anr			
Cadmium	anr			
Calcium	26400	25000	105.6	80-120
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	4910	5000	98.2	80-120
Lithium				
Magnesium	24700	25000	98.8	80-120
Manganese	508	500	101.6	80-120
Molybdenum				
Nickel	anr			
Phosphorus				
Potassium	25100	25000	100.4	80-120
Selenium	1120	1000	112.0	80-120
Silicon				
Silver	anr			
Sodium	24900	25000	99.6	80-120
Strontium				
Thallium	anr			
Tin				
Titanium				
Uranium				
Vanadium	anr			
Zinc	anr			

Associated samples MP12863: D57430-1, D57430-2, D57430-3, D57430-4, D57430-5, D57430-6

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: D57430
 Account: WILLCOF - WPX Energy Rocky Mountain, LLC
 Project: CORCCOGJ: Knight Property Quarterly Sampling (011.1712)

QC Batch ID: MP12863
 Matrix Type: AQUEOUS

Methods: SW846 6010C
 Units: ug/l

Prep Date: 05/07/14

Metal	D57409-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony	anr			
Arsenic	anr			
Barium	anr			
Boron	anr			
Cadmium	anr			
Calcium	78500	83100	5.8	0-10
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	216	260	20.3*(a)	0-10
Lithium				
Magnesium	120000	132000	9.7	0-10
Manganese	117	125	6.0	0-10
Molybdenum				
Nickel	anr			
Phosphorus				
Potassium	7530	5880	3.0	0-10
Selenium	25.2	55.0	118.3(b)	0-10
Silicon				
Silver	anr			
Strontium				
Thallium	anr			
Tin				
Titanium				
Uranium				
Vanadium	anr			
Zinc	anr			

Associated samples MP12863: D57430-1, D57430-2, D57430-3, D57430-4, D57430-5, D57430-6

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

(a) Serial dilution indicates possible matrix interference.

(b) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D57430
Account: WILLCOPI - WPX Energy Rocky Mountain, LLC
Project: CORCCOGJ: Knight Property Quarterly Sampling (011.1712)

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Alkalinity, Bicarbonate as CaC	GN24646	5.0	2.5	mg/l	100	100	100.3	90-110%
Alkalinity, Carbonate	GN24647	5.0	0.0	mg/l	100	100	100.3	80-120%
Alkalinity, Total as CaCO3	GN24645	5.0	2.5	mg/l	100	100	100.3	90-110%
BOD, 5 Day	GP12522/GN24658	1.0	0.0	mg/l	198	172	86.6	85-115%
Bromide	GP12495/GN24575	0.050	0.0	mg/l	0.5	0.520	104.0	90-110%
Chemical Oxygen Demand	GP12516/GN24601	10	0.0	mg/l	100	93.1	93.0	80-120%
Chloride	GP12495/GN24575	0.50	0.0	mg/l	5	4.80	96.0	90-110%
Fluoride	GP12495/GN24575	0.10	0.0	mg/l	1	1.03	103.0	90-110%
Nitrogen, Nitrate	GP12495/GN24575	0.010	0.0	mg/l	0.1	0.0972	97.2	90-110%
Nitrogen, Nitrite	GP12495/GN24575	0.0040	0.0	mg/l	0.05	0.0489	97.8	90-110%
Phosphate, Ortho	GP12495/GN24575	0.050	0.0	mg/l	0.5	0.505	101.0	90-110%
Phosphorus, Total	GP12549/GN24660	0.010	0.0	mg/l	0.38	0.37	98.5	80-120%
Solids, Total Dissolved	GN24613	10	0.0	mg/l	400	403	100.8	90-110%
Sulfate	GP12495/GN24575	0.50	0.0	mg/l	5	5.03	100.6	90-110%
Total Organic Carbon	GP12513/GN24598	1.0	0.0	mg/l	8.82	8.54	96.8	90-110%
Total Organic Carbon	GP12537/GN24629	1.0	0.0	mg/l	8.82	8.69	98.5	90-110%
pH	GN24607			su	8.00	8.01	100.1	99.3-100.7%

Associated Samples:

Batch GN24607: D57430-1, D57430-2, D57430-3, D57430-4, D57430-5, D57430-6
Batch GN24613: D57430-1, D57430-2, D57430-3, D57430-4, D57430-5, D57430-6
Batch GN24645: D57430-1, D57430-2, D57430-3, D57430-4, D57430-5, D57430-6
Batch GN24646: D57430-1, D57430-2, D57430-3, D57430-4, D57430-5, D57430-6
Batch GN24647: D57430-1, D57430-2, D57430-3, D57430-4, D57430-5, D57430-6
Batch GP12495: D57430-1, D57430-2, D57430-3, D57430-4, D57430-5, D57430-6
Batch GP12513: D57430-1, D57430-2, D57430-3, D57430-4, D57430-5
Batch GP12516: D57430-1, D57430-2, D57430-3, D57430-4, D57430-5, D57430-6
Batch GP12522: D57430-1, D57430-2, D57430-3, D57430-4, D57430-5, D57430-6
Batch GP12537: D57430-6
Batch GP12549: D57430-1, D57430-2, D57430-3, D57430-4, D57430-5, D57430-6
(*) Outside of QC limits

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DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D57430
Account: WILLCOP - WPX Energy Rocky Mountain, LLC
Project: CORCCOGJ: Knight Property Quarterly Sampling (011.1712)

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Alkalinity, Total as CaCO ₃	GN24645	D57430-4	mg/l	501	503	0.4	0-20%
BOD, 5 Day	GP12522/GN24658	D57430-1	mg/l	14.0	12.5	11.3	0-20%
Chemical Oxygen Demand	GP12516/GN24601	D57430-3	mg/l	12.8	13.5	5.3	0-25%
Phosphorus, Total	GP12549/GN24660	D57430-2	mg/l	0.85	0.87	2.3	0-20%
Solids, Total Dissolved	GN24613	D57430-6	mg/l	568	572	0.7	0-20%
Total Organic Carbon	GP12513/GN24598	D57242-1	mg/l	6.3	6.2	1.6	0-20%
Total Organic Carbon	GP12537/GN24629	D57430-6	mg/l	4.3	4.2	2.4	0-20%

Associated Samples:

Batch GN24613: D57430-1, D57430-2, D57430-3, D57430-4, D57430-5, D57430-6
Batch GN24645: D57430-1, D57430-2, D57430-3, D57430-4, D57430-5, D57430-6
Batch GP12513: D57430-1, D57430-2, D57430-3, D57430-4, D57430-5
Batch GP12516: D57430-1, D57430-2, D57430-3, D57430-4, D57430-5, D57430-6
Batch GP12522: D57430-1, D57430-2, D57430-3, D57430-4, D57430-5, D57430-6
Batch GP12537: D57430-6
Batch GP12549: D57430-1, D57430-2, D57430-3, D57430-4, D57430-5, D57430-6
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D57430
Account: WILLCOB - WPX Energy Rocky Mountain, LLC
Project: CORCCOGJ: Knight Property Quarterly Sampling (011.1712)

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Alkalinity, Total as CaCO3	GN24645	D57409-1	mg/l	961	100	380	88.4	80-120%
Bromide	GP12495/GN24575	D57400-1	mg/l	0.45	10	10.8	108.0	80-120%
Bromide	GP12495/GN24575	D57400-1	mg/l	0.0	10	10.8	108.0	80-120%
Chemical Oxygen Demand	GP12516/GN24601	D57430-2	mg/l	14.6	40	54.2	99.0	70-130%
Chloride	GP12495/GN24575	D57400-1	mg/l	154	100	263	109.0	80-120%
Chloride	GP12495/GN24575	D57400-1	mg/l	103	100	263	109.0	80-120%
Fluoride	GP12495/GN24575	D57400-1	mg/l	0.56	20	21.7	102.5	80-120%
Fluoride	GP12495/GN24575	D57400-1	mg/l	1.2	20	21.7	102.5	80-120%
Nitrogen, Nitrate	GP12495/GN24575	D57400-1	mg/l	6.9	2	9.2	115.0	80-120%
Nitrogen, Nitrate	GP12495/GN24575	D57400-1	mg/l	12.3	2	9.2	115.0	80-120%
Nitrogen, Nitrite	GP12495/GN24575	D57400-1	mg/l	0.081	1	1.2	111.9	80-120%
Nitrogen, Nitrite	GP12495/GN24575	D57400-1	mg/l	0.0	1	1.2	111.9	80-120%
Phosphate, Ortho	GP12495/GN24575	D57400-1	mg/l	0.0	10	10.4	104.0	80-120%
Phosphate, Ortho	GP12495/GN24575	D57400-1	mg/l	0.0	10	10.4	104.0	80-120%
Phosphorus, Total	GP12549/GN24660	D57351-2	mg/l	0.017	0.40	0.38	90.8	80-120%
Sulfate	GP12495/GN24575	D57400-1	mg/l	313	100	417	104.0	80-120%
Sulfate	GP12495/GN24575	D57400-1	mg/l	22.1	100	417	104.0	80-120%
Total Organic Carbon	GP12513/GN24598	D57242-1	mg/l	6.3	10	16.9	106.0	80-120%
Total Organic Carbon	GP12537/GN24629	D57430-6	mg/l	4.3	10	14.3	100.0	80-120%

Associated Samples:

Batch GN24645: D57430-1, D57430-2, D57430-3, D57430-4, D57430-5, D57430-6

Batch GP12495: D57430-1, D57430-2, D57430-3, D57430-4, D57430-5, D57430-6

Batch GP12513: D57430-1, D57430-2, D57430-3, D57430-4, D57430-5

Batch GP12516: D57430-1, D57430-2, D57430-3, D57430-4, D57430-5, D57430-6

Batch GP12537: D57430-6

Batch GP12549: D57430-1, D57430-2, D57430-3, D57430-4, D57430-5, D57430-6

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

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MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D57430
Account: WILLCOPI - WPX Energy Rocky Mountain, LLC
Project: CORCCOGJ: Knight Property Quarterly Sampling (011.1712)

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Alkalinity, Total as CaCO3	GN24645	D57409-1	mg/l	961	100	381	0.2	20%
Bromide	GP12495/GN24575	D57400-1	mg/l	0.45	10	10.9	0.9	20%
Bromide	GP12495/GN24575	D57400-1	mg/l	0.0	10	10.9	0.9	20%
Chemical Oxygen Demand	GP12516/GN24601	D57430-2	mg/l	14.6	40	58.4	7.5	25%
Chloride	GP12495/GN24575	D57400-1	mg/l	154	100	260	3.3	20%
Chloride	GP12495/GN24575	D57400-1	mg/l	103	100	260	3.3	20%
Fluoride	GP12495/GN24575	D57400-1	mg/l	0.56	20	20.6	5.2	20%
Fluoride	GP12495/GN24575	D57400-1	mg/l	1.2	20	20.6	5.2	20%
Nitrogen, Nitrate	GP12495/GN24575	D57400-1	mg/l	6.9	2	9.1	5.8	20%
Nitrogen, Nitrate	GP12495/GN24575	D57400-1	mg/l	12.3	2	9.1	5.8	20%
Nitrogen, Nitrite	GP12495/GN24575	D57400-1	mg/l	0.081	1	1.1	8.7	20%
Nitrogen, Nitrite	GP12495/GN24575	D57400-1	mg/l	0.0	1	1.1	8.7	20%
Phosphate, Ortho	GP12495/GN24575	D57400-1	mg/l	0.0	10	10.3	1.0	20%
Phosphate, Ortho	GP12495/GN24575	D57400-1	mg/l	0.0	10	10.3	1.0	20%
Phosphorus, Total	GP12549/GN24660	D57351-2	mg/l	0.017	0.40	0.390	-2.6	20%
Sulfate	GP12495/GN24575	D57400-1	mg/l	313	100	416	0.6	20%
Sulfate	GP12495/GN24575	D57400-1	mg/l	22.1	100	416	0.6	20%
Total Organic Carbon	GP12513/GN24598	D57242-1	mg/l	6.3	10	16.7	1.2	20%
Total Organic Carbon	GP12537/GN24629	D57430-6	mg/l	4.3	10	14.0	2.1	20%

Associated Samples:

Batch GN24645: D57430-1, D57430-2, D57430-3, D57430-4, D57430-5, D57430-6

Batch GP12495: D57430-1, D57430-2, D57430-3, D57430-4, D57430-5, D57430-6

Batch GP12513: D57430-1, D57430-2, D57430-3, D57430-4, D57430-5

Batch GP12516: D57430-1, D57430-2, D57430-3, D57430-4, D57430-5, D57430-6

Batch GP12537: D57430-6

Batch GP12549: D57430-1, D57430-2, D57430-3, D57430-4, D57430-5, D57430-6

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

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