

State of Colorado

Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303)894-2100 Fax: (303)894-2109



SUNDRY NOTICE

Submit original plus one copy. This form is to be used for general, technical and environmental sundry information. For proposed or completed operations, describe in full on Technical Information Page (Page 2 of this form.) Identify well or other facility by API Number or by OGCC Facility ID. Operator shall send an informational copy of all sundry notices for wells located in High Density Areas to the Local Government Designee (Rule 603b.)

RECEIVED
2/7/2013

1. OGCC Operator Number: 96850	4. Contact Name: Karolina Blaney	Complete the Attachment Checklist
2. Name of Operator: WPX Energy Rocky Mountain, LLC	Phone: 970.683.2295	
3. Address: 1058 County Road 215	Fax: 970.285.9573	OP OGCC
City: Parachute State: CO Zip: 81635		
5. API Number 05-045-07664	OGCC Facility ID Number 324133	Survey Plat
6. Well/Facility Name: Knight PA 311-4	7. Well/Facility Number	Directional Survey
8. Location (Qtr/Sec, Twp, Rng, Meridian): NWNW S4, T7S, R9S, 6PM		Surface Eqmpt Diagram
9. County: Garfield	10. Field Name: Parachute	Technical Info Page
11. Federal, Indian or State Lease Number: NA		Other

Location ID #

REM # 4251

General Notice

<input type="checkbox"/> CHANGE OF LOCATION: Attach New Survey Plat (a change of surface qtr/qtr is substantive and requires a new permit)	
Change of Surface Footage from Exterior Section Lines:	<input type="checkbox"/> FNU/FSL <input type="checkbox"/> FEL/FWL
Change of Surface Footage to Exterior Section Lines:	<input type="checkbox"/>
Change of Bottomhole Footage from Exterior Section Lines:	<input type="checkbox"/>
Change of Bottomhole Footage to Exterior Section Lines:	<input type="checkbox"/> attach directional survey
Bottomhole location Qtr/Sec, Twp, Rng, Mer	
Latitude	Distance to nearest property line
Longitude	Distance to nearest lease line
Ground Elevation	Distance to nearest well same formation
	Distance to nearest bldg, public rd, utility or RR
	Is location in a High Density Area (rule 603b)? Yes/No
	Surface owner consultation date:
GPS DATA:	
Date of Measurement	PDOP Reading
	Instrument Operator's Name
<input type="checkbox"/> CHANGE SPACING UNIT	
Formation	Formation Code
Spacing order number	Unit Acreage
Unit configuration	
<input type="checkbox"/> Remove from surface bond	
Signed surface use agreement attached	
<input type="checkbox"/> CHANGE OF OPERATOR (prior to drilling):	
Effective Date:	
Plugging Bond: <input type="checkbox"/> Blanket <input type="checkbox"/> Individual	
<input type="checkbox"/> CHANGE WELL NAME	
From:	NUMBER
To:	
Effective Date:	
<input type="checkbox"/> ABANDONED LOCATION:	
Was location ever built? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Is site ready for inspection? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Date Ready for Inspection:	
<input type="checkbox"/> NOTICE OF CONTINUED SHUT IN STATUS	
Date well shut in or temporarily abandoned:	
Has Production Equipment been removed from site? <input type="checkbox"/> Yes <input type="checkbox"/> No	
MIT required if shut in longer than two years. Date of last MIT	
<input type="checkbox"/> SPUD DATE:	
<input type="checkbox"/> REQUEST FOR CONFIDENTIAL STATUS (6 mos from date casing set)	
<input type="checkbox"/> SUBSEQUENT REPORT OF STAGE, SQUEEZE OR REMEDIAL CEMENT WORK	
Method used	Cementing tool setting/perf depth
Cement volume	Cement top
Cement bottom	Date
*submit cbl and cement job summaries	
<input type="checkbox"/> RECLAMATION: Attach technical page describing final reclamation procedures per Rule 1004.	
Final reclamation will commence on approximately	<input type="checkbox"/> Final reclamation is completed and site is ready for inspection.

Technical Engineering/Environmental Notice

<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Report of Work Done
Approximate Start Date:	Date Work Completed:
Details of work must be described in full on Technical Information Page (Page 2 must be submitted.)	
<input type="checkbox"/> Intent to Recomplete (submit form 2)	<input type="checkbox"/> Request to Vent or Flare
<input type="checkbox"/> Change Drilling Plans	<input type="checkbox"/> Repair Well
<input type="checkbox"/> Gross Interval Changed?	<input type="checkbox"/> Rule 502 variance requested
<input type="checkbox"/> Casing/Cementing Program Change	<input type="checkbox"/> Other:
<input type="checkbox"/> E&P Waste Disposal	
<input type="checkbox"/> Beneficial Reuse of E&P Waste	
<input checked="" type="checkbox"/> Status Update/Change of Remediation Plans	
for Spills and Releases	

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct and complete.

Signed: Karolina Blaney

Date: 2/7/2013

Email: Karolina.Blaney@wpenergy.com

Print Name: Karolina Blaney

Title: Environmental Specialist

COGCC Approved:

Title: FOR

Date: 02/08/2013

CONDITIONS OF APPROVAL, IF ANY:

Chris Camfield
EPS NW Region

NO PAHs required

ongoing
Monitoring

MNA quarterly

TECHNICAL INFORMATION PAGE



FOR OGCC USE ONLY

1. OGCC Operator Number: _____	API Number: _____
2. Name of Operator: _____	OGCC Facility ID # _____
3. Well/Facility Name: _____	Well/Facility Number: _____
4. Location (QtrQtr, Sec, Twp, Rng, Meridian): _____	

This form is to be completed whenever a Sundry Notice is submitted requiring detailed report of work to be performed or completed. This form shall be transmitted within 30 days of work completed as a "subsequent" report and must accompany Form 4, page 1.

5. DESCRIBE PROPOSED OR COMPLETED OPERATIONS

Table 1
Post CoolOX Groundwater Monitoring
Analytical Summary

LABORATORY DATA SUMMARY																			
Sample ID	COGCC Table 910-1 Standards	UNITS	MW-1					MW-2A				MW-3							
Sampling Period			4th Quarter	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	4th Quarter	1st Quarter	3rd Quarter	4th Quarter	4th Quarter	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter			
Depth to Water (feet)			5.57	5.52	5.28	5.52	6.78	4.93	5.04	4.72	5.65	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	11/18/2011	2/14/2012	8/29/2012	11/26/2012	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	< 0.050	< 0.10	<0.10	<0.10	< 0.050	< 0.10	<0.10	<0.10	<0.10			
TPH Diesel Range Organics	NA	mg/l	0.596	0.412	0.996	0.886	0.518	<0.10	< 0.30	<0.25	<0.17	25.1	< 0.30	<0.25	<0.25	<0.17			
BTEX																			
Benzene	5	µg/l	7.9	1.2	<0.20	15.9	7.6	< 1.0	< 0.20	< 0.20	<0.20	< 1.0	< 0.20	<0.20	<0.20	<0.20			
Toluene	560 to 1000	µg/l	1.4	< 1.0	<1.0	7.2 J	<5.0	< 1.0	< 1.0	< 1.0	<1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0			
Ethylbenzene	700	µg/l	24.3	< 1.0	<1.0	65.9	37.7	< 1.0	< 1.0	< 1.0	<1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0			
Xylene (total)	1400 to 10000	µg/l	477	227	26.7	517	421	< 3.0	< 2.0	< 2.0	<2.0	< 3.0	< 2.0	<2.0	<2.0	<2.0			
PAHs																			
Acenaphthene	NA	µg/l	< 0.2	< 0.60	<0.48	<0.48	<0.48	< 0.2	< 0.60	<0.47	<0.48	< 0.2	< 0.60	<0.48	<0.48	<0.49			
Acenaphthylene	NA	µg/l	< 0.2	< 0.60	<0.48	<0.48	<0.48	< 0.2	< 0.60	<0.47	<0.48	< 0.2	< 0.60	<0.48	<0.48	<0.49			
Anthracene	NA	µg/l	< 0.2	< 0.47	<0.48	<0.48	<0.48	< 0.2	< 0.47	<0.47	<0.48	< 0.2	< 0.47	<0.48	<0.48	<0.49			
Benzo(a)anthracene	NA	µg/l	< 0.2	< 0.47	<0.48	<0.48	<0.48	< 0.2	< 0.47	<0.47	<0.48	< 0.2	< 0.47	<0.48	<0.48	<0.49			
Benzo(a)pyrene	NA	µg/l	< 0.2	< 0.47	<0.48	<0.48	<0.48	< 0.2	< 0.47	<0.47	<0.48	< 0.2	< 0.47	<0.48	<0.48	<0.49			
Benzo(b)fluoranthene	NA	µg/l	< 0.2	< 0.47	<0.48	<0.48	<0.48	< 0.2	< 0.47	<0.47	<0.48	< 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	<0.48	< 0.2	< 0.54	<0.47	<0.48	< 0.2	< 0.54	<0.48	<0.48	<0.49			
Benzo(k)fluoranthene	NA	µg/l	< 0.2	< 0.47	<0.48	<0.48	<0.48	< 0.2	< 0.47	<0.47	<0.48	< 0.2	< 0.47	<0.48	<0.48	<0.49			
Chrysene	NA	µg/l	< 0.2	< 0.47	<0.48	<0.48	<0.48	< 0.2	< 0.47	<0.47	<0.48	< 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	<0.48	< 0.2	< 0.78	<0.47	<0.48	< 0.2	< 0.78	<0.48	<0.48	<0.49			
Fluoranthene	NA	µg/l	< 0.2	< 0.71	<0.48	<0.48	<0.48	< 0.2	< 0.71	<0.47	<0.48	< 0.2	< 0.71	<0.48	<0.48	<0.49			
Fluorene	NA	µg/l	< 0.2	< 0.55	<0.48	<0.48	<0.48	< 0.2	< 0.55	<0.47	<0.48	< 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	<0.48	< 0.2	< 1.5	<0.47	<0.48	< 0.2	< 1.5	<0.48	<0.48	<0.49			
1-Methylnapthalene	NA	µg/l	1.1	< 0.68	1.1 J	0.67 J	0.50 J	< 0.2	< 0.68	<0.47	<0.48	< 0.2	< 0.68	<0.48	<0.48	<0.49			
2-Methylnapthalene	NA	µg/l	1.6	0.83 J	2.0 J	1.0 J	<0.48	< 0.2	< 0.68	<0.47	<0.48	< 0.2	< 0.68	<0.48	<0.48	<0.49			
Napthalene	NA	µg/l	2.9	1.2 J	3.6 J	2.0 J	<0.48	< 0.2	< 0.73	<0.47	<0.48	< 0.2	< 0.73	<0.48	<0.48	<0.49			
Phenanthrene	NA	µg/l	< 0.2	< 0.47	<0.48	<0.48	<0.48	< 0.2	< 0.47	<0.47	<0.48	< 0.2	< 0.47	<0.48	<0.48	<0.49			
Pyrene	NA	µg/l	< 0.2	< 0.47	<0.48	<0.48	<0.48	< 0.2	< 0.47	<0.47	<0.48	< 0.2	< 0.47	<0.48	<0.48	<0.49			
Metals																			
Calcium	NA	mg/l	173	88.3	138	170	147	129	109	94.6	208	76.7	151	157	133	218			
Iron	NA	mg/l	26.5	5.32	11.6	17.7	19.5	14	4.77	10.1	33.5	4.8	6.79	26.8	16.3	35.4			
Magnesium	NA	mg/l	36.7	58.6	54.7	72.5	63.6	51.4	55.4	61.6	81.6	37.2	50.3	57.8	62.8	75.1			
Manganese	NA	mg/l	1.13	0.418	0.653	0.947	0.748	1.72	2.03	1.64	3.37	0.718	1.43	1.71	1.32	2.31			
Potassium	NA	mg/l	< 10	3.64	4.63	7.7	6.15	< 10	3.19	6.54	8.6	< 10	2.95	6.88	7.87	9.53			
Selenium	NA	mg/l	< 0.01	< 0.05	<0.050	<0.050	<0.05	< 0.01	< 0.05	< 0.05	<0.05	< 0.01	< 0.05	<0.050	<0.050	<0.05			
Sodium	NA	mg/l	50.2	63.8	64.7	104	80	60.4	59.4	96.7	97.8	56.1	61.4	61.0	92.9	93.9			
General Chemistry																			
Alkalinity, Bicarbonate	NA	mg/l	260	488	498	667	746	372	440	364	299	384	462	427	396	309			
Alkalinity, Carbonate	NA	mg/l	< 5.0	< 5.0	<5.0	<5.0	<5.0	< 5.0	< 5.0	<5.0	<5.0	< 5.0	< 5.0	<5.0	<5.0	<5.0			
Alkalinity, Total as CaCO3	NA	mg/l	264	488	497	667	746	374	440	364	299	386	462	427	396	309			
Biological Oxygen Demand, 5 Days	NA	mg/l	10.5	10.9	22.6	21	28.4	< 15	< 10	< 10	<10	11.1	< 10	<10	<10	<10			
Bromide	NA	mg/l	< 0.50	< 0.20	1.3	2.8	<0.25	< 0.50	< 0.20	<0.10	0.11	< 0.50	< 0.20	<0.20	<0.10	<0.10			
Chemical Oxygen Demand	NA	mg/l	31.6	18.4	62.3	79.6	21.7	66.9	20.4	49	<10	21	< 10	<10	49	<10			
Chloride	1.25 x bkgd	mg/l	16.0	11.5	9.0	139	39.2	15.4	13.2	151	206	16.7	14.5	12.9	151	210			
Hydroxide Alkalinity	NA	mg/l	< 5.0	NT	NT	NT	NT	< 5.0	NT	NT	NT	< 5.0	NT	NT	NT	NT			
Nitrogen, Nitrate	NA	mg/l	0.66	< 0.23	<0.23	0.077	<0.050	0.57	< 0.23	0.063	0.031	0.58	< 0.23	<0.090	<0.020	0.034			
Nitrogen, Nitrite	NA	mg/l	< 0.50	< 0.061	0.010	0.064	0.015	< 0.50	< 0.061	0.04	<0.0080	0.67	< 0.061	<0.010	<0.040	0.015			
Phosphorus, Total	NA	mg/l	3.5	0.59	1.1	NT	2.0	0.89	1.3	NT	1.4	0.45	1.7	1.3	NT	1.7			
Plate Count, Total	NA	CFU/ml	1590000	110000	300000	360000	150000	70000	6900	5600	8100	120000	8500	10000	14000	12000			
Sulfate	1.25 x bkgd	mg/l	16.8	10.9	5.7	66.2	13.4	16.8	44.2	108	155	10.9	24	34.7	125	137			
Total Organic Carbon	NA	mg/l	13.2	8.8	10.4	18.5	10.2	4.5	3.9	5.6	4.9	4.5	4.3	4.2	5.6	4.4			
pH	NA	su	8.34	7.76	7.67	7.38	7.48	7.14	7.58	7.51	7.49	7.1	7.64	7.6	7.33	7.46			
Field Readings																			
Temperature	NA	deg. C	14.6	6.82	13.89	21.20	14.49	13.2	8.3	20.9	13.1	14.8	7.46	13.49	21.37	14.35			
Specific Conductivity	NA	mS/cm	0.511	0.837	0.789	1.234	1.227	0.651	0.77	1.132	1.34	0.663	0.763	0.783	1.291	0.417			
Dissolved Oxygen	NA	mg/l	6.55	2.25	3.25	1.51	0.95	0.24	1.22	1.73	1.22	0.14	2.43	1.46	1.82	1.67			
pH	NA	su	9.05	7.37	7.71	7.49	7.7	7.50	7.25	7.56	7.75	7.41	7.26	7.8	7.48	7.75			
Solids, Total Dissolved	NA	mg/l	0.3	0.5	0.5	0.8	NT	0.4	0.5	0.7	NT	0.4	0.5	0.5	0.8	NT			
Turbidity	NA	NTU	264	117	538	386	117	653	766	1997	345	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 - 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

LABORATORY DATA SUMMARY																	
Sample ID	COGCC Table 910-1 Standards	UNITS	MW-4					MW-5					MW-6				
Sampling Period			4th Quarter	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	4th Quarter	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	4th Quarter	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Depth to Water (feet)			10.64	10.34	10.63	11.31	11.64	5.63	6.06	6.11	6.12	6.8	6.69	6.70	6.78	6.84	7.35
Sample Date			11/18/2011	2/14/2012	5/8/2012	8/29/2012	11/26/2012	11/18/2011	2/14/2012	5/8/2012	8/29/2012	11/26/2012	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	< 0.050	< 0.10	<0.10	<0.10	<0.10	< 0.050	< 0.10	<0.10	<0.10	<0.10
TPH Diesel Range Organics	NA	mg/l	<0.10	< 0.30	<0.25	<0.25	<0.17	<0.10	< 0.30	<0.25	<0.25	<0.17	0.213	< 0.30	0.261	0.445	0.347
BTEX																	
Benzene	5	µg/l	< 1.0	< 0.20	<0.20	<0.20	<0.20	< 1.0	< 0.20	<0.20	<0.20	<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	< 1.0	<1.0	<1.0	<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	< 1.0	<1.0	<1.0	<1.0	< 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	< 3.0	< 2.0	<2.0	<2.0	<2.0	< 3.0	< 2.0	<2.0	<2.0	<2.0
PAHs																	
Acenaphthene	NA	µg/l	< 0.2	< 0.60	<0.47	<0.48	<0.48	< 0.2	< 0.60	<0.48	<0.48	<0.47	< 0.2	< 0.60	<0.48	<0.48	<0.48
Acenaphthylene	NA	µg/l	< 0.2	< 0.60	<0.47	<0.48	<0.48	< 0.2	< 0.60	<0.48	<0.48	<0.47	< 0.2	< 0.60	<0.48	<0.48	<0.48
Anthracene	NA	µg/l	< 0.2	< 0.47	<0.47	<0.48	<0.48	< 0.2	< 0.47	<0.48	<0.48	<0.47	< 0.2	< 0.47	<0.48	<0.48	<0.48
Benzo(a)anthracene	NA	µg/l	< 0.2	< 0.47	<0.47	<0.48	<0.48	< 0.2	< 0.47	<0.48	<0.48	<0.47	< 0.2	< 0.47	<0.48	<0.48	<0.48
Benzo(a)pyrene	NA	µg/l	< 0.2	< 0.47	<0.47	<0.48	<0.48	< 0.2	< 0.47	<0.48	<0.48	<0.47	< 0.2	< 0.47	<0.48	<0.48	<0.48
Benzo(b)fluoranthene	NA	µg/l	< 0.2	< 0.47	<0.47	<0.48	<0.48	< 0.2	< 0.47	<0.48	<0.48	<0.47	< 0.2	< 0.47	<0.48	<0.48	<0.48
Benzo(g,h,i)perylene	NA	µg/l	< 0.2	< 0.54	<0.47	<0.48	<0.48	< 0.2	< 0.54	<0.48	<0.48	<0.47	< 0.2	< 0.54	<0.48	<0.48	<0.48
Benzo(k)fluoranthene	NA	µg/l	< 0.2	< 0.47	<0.47	<0.48	<0.48	< 0.2	< 0.47	<0.48	<0.48	<0.47	< 0.2	< 0.47	<0.48	<0.48	<0.48
Chrysene	NA	µg/l	< 0.2	< 0.47	<0.47	<0.48	<0.48	< 0.2	< 0.47	<0.48	<0.48	<0.47	< 0.2	< 0.47	<0.48	<0.48	<0.48
Dibenzo(a,h)anthracene	NA	µg/l	< 0.2	< 0.78	<0.47	<0.48	<0.48	< 0.2	< 0.78	<0.48	<0.48	<0.47	< 0.2	< 0.78	<0.48	<0.48	<0.48
Fluoranthene	NA	µg/l	< 0.2	< 0.71	<0.47	<0.48	<0.48	< 0.2	< 0.71	<0.48	<0.48	<0.47	< 0.2	< 0.71	<0.48	<0.48	<0.48
Fluorene	NA	µg/l	< 0.2	< 0.55	<0.47	<0.48	<0.48	< 0.2	< 0.55	<0.48	<0.48	<0.47	< 0.2	< 0.55	<0.48	<0.48	<0.48
Indeno(1,2,3-cd)pyrene	NA	µg/l	< 0.2	< 1.5	<0.47	<0.48	<0.48	< 0.2	< 1.5	<0.48	<0.48	<0.47	< 0.2	< 1.5	<0.48	<0.48	<0.48
1-Methylnapthalene	NA	µg/l	< 0.2	< 0.68	<0.47	<0.48	<0.48	< 0.2	< 0.68	<0.48	<0.48	<0.47	< 0.2	< 0.68	<0.48	<0.48	<0.48
2-Methylnapthalene	NA	µg/l	< 0.2	< 0.68	<0.47	<0.48	<0.48	< 0.2	< 0.68	<0.48	<0.48	<0.47	< 0.2	< 0.68	<0.48	<0.48	<0.48
Naphthalene	NA	µg/l	< 0.2	< 0.73	<0.47	<0.48	<0.48	< 0.2	< 0.73	<0.48	<0.48	<0.47	< 0.2	< 0.73	<0.48	<0.48	<0.48
Phenanthrene	NA	µg/l	< 0.2	< 0.47	<0.47	<0.48	<0.48	< 0.2	< 0.47	<0.48	<0.48	<0.47	< 0.2	< 0.47	<0.48	<0.48	<0.48
Pyrene	NA	µg/l	< 0.2	< 0.47	<0.47	<0.48	<0.48	< 0.2	< 0.47	<0.48	<0.48	<0.47	< 0.2	< 0.47	<0.48	<0.48	<0.48
Metals																	
Calcium	NA	mg/l	73.9	126	107	121	238	119	198	157	99.9	333	80.8	72.8	78.8	114	229
Iron	NA	mg/l	3.52	6.71	18.1	19.7	47.5	18.9	18.2	33.3	11.4	83.1	16.7	4.98	13.2	6.90	46.60
Magnesium	NA	mg/l	40.6	48.6	55.4	71.5	104	45.6	62.2	60.8	56.0	108	51	57.9	53.8	57.4	92.7
Manganese	NA	mg/l	1.74	1.71	1.91	4.4	2.16	0.977	1.56	1.33	0.808	2.81	3.25	1.59	1.17	0.817	3.950
Potassium	NA	mg/l	< 10	2.89	5.9	8.73	12.2	< 10	3.22	6.71	5.69	12.6	< 10	2.17	4.43	6.43	9.82
Selenium	NA	mg/l	< 0.01	< 0.05	<0.050	<0.050	<0.05	< 0.01	< 0.05	<0.050	<0.050	<0.05	< 0.01	< 0.05	<0.050	<0.050	<0.05
Sodium	NA	mg/l	62.1	58.3	71.8	99.1	110.0	55.8	56.4	58.9	8.0	85.1	53.7	59.0	63.9	82.0	82.0
General Chemistry																	
Alkalinity, Bicarbonate	NA	mg/l	392	364	452	616	618	364	540	481	429	452	388	435	438	352	356
Alkalinity, Carbonate	NA	mg/l	< 5.0	< 5.0	<5.0	<5.0	<5.0	< 5.0	< 5.0	<5.0	<5.0	<5.0	< 5.0	< 5.0	<5.0	<5.0	<5.0
Alkalinity, Total as CaCO3	NA	mg/l	396	364	452	616	618	366	540	481	429	452	390	435	438	352	356
Biological Oxygen Demand, 5 Days	NA	mg/l	8.1	< 10	<10	10.7	<10	< 15	< 10	<10	<10	<10	6.8	< 10	<10	<10	<10
Bromide	NA	mg/l	< 0.50	< 0.20	<0.40	0.19	0.26	< 0.50	< 4.0	<0.40	<0.10	0.1	< 0.50	< 4.0	1.0	0.063	0.100
Chemical Oxygen Demand	NA	mg/l	28.1	< 10	<10	57	20.3	40.4	18.1	<10	75.5	10.8	96.8	35.3	<10	47.4	10.8
Chloride	1.25 x bkgd	mg/l	14.1	6.9	7.2	13.1	16.4	18.1	20	10.6	133	198	21.1	31	11.8	136	198
Hydroxide Alkalinity	NA	mg/l	< 5.0	NT	NT	NT	NT	< 5.0	NT	NT	NT	NT	< 5.0	NT	NT	NT	NT
Nitrogen, Nitrate	NA	mg/l	< 0.50	< 0.23	<0.090	<0.020	<0.050	0.51	< 0.45	<0.090	0.039	<0.050	0.56	< 0.45	<0.23	<0.010	0.056
Nitrogen, Nitrite	NA	mg/l	< 0.50	< 0.061	<0.010	0.008	<0.0080	< 0.50	< 0.061	<0.010	0.052	0.011	< 0.50	< 0.061	<0.010	0.04	<0.0080
Phosphorus, Total	NA	mg/l	0.14	1.4	1.1	NT	1.2	1.2	2	1.6	NT	1.8	0.46	0.29	0.83	NT	1.6
Plate Count, Total	NA	CFU/ml	120000	4600	5400	3800	13000	180000	3300	1900	63000	16000	2210000	81000	64000	820000	420000
Sulfate	1.25 x bkgd	mg/l	36.2	40.8	34.2	13	110	16.2	19	27.8	101	142	45.1	21.7	13.2	114	114
Total Organic Carbon	NA	mg/l	4.8	3.6	4.5	8.5	10.3	6.1	10.9	5.0	6.4	5.2	34.6	11.5	7.3	5.2	5.2
pH	NA	su	7.18	7.73	7.65	7.64	7.69	7.22	7.62	7.65	7.47	7.54	7.2	7.59	7.65	7.39	5.57
Field Readings																	
Temperature	NA	deg. C	14.2	6.5	13.23	19.42	14.68	12.7	5.77	13.89	20.67	13.05	12.7	5.44	14.02	21.30	12.89
Specific Conductivity	NA	mS/cm	0.713	0.682	0.814	1.02	1.371	0.667	0.798	0.727	1.116	1.46	0.749	0.866	0.790	1.145	1.395
Dissolved Oxygen	NA	mg/l	0.15	2.34	2.74	1.67	1.96	0.13	1.75	2.24	1.15	1.2	0.27	1.4	2.40	2.30	1.35
pH	NA	su	7.5	7.38	7.93	7.6	7.85	7.47	7.22	7.85	7.51	7.76	7.52	7.17	NT	7.49	7.72
Solids, Total Dissolved	NA	mg/l	0.5	0.4	0.5	0.7	NT	0.4	0.5	0.5	0.7	NT	0.5	0.6	0.5	0.7	0.6
Turbidity	NA	NTU	62.7	443	930	1572	554	896	2000	2000	2000	465	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

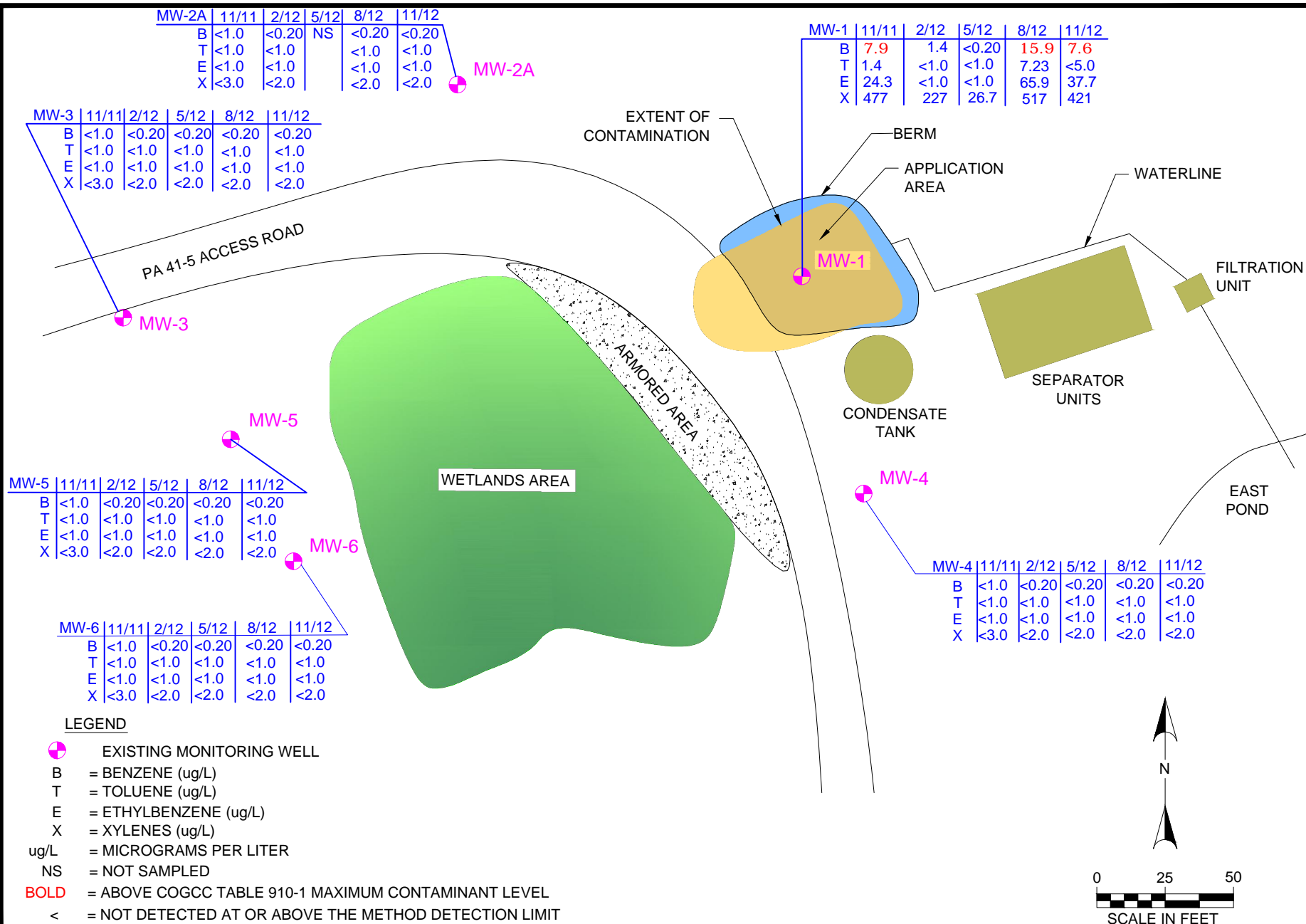
su - standard units

NA - not applicable

NTU - nephelometric turbidity units

CFU/ml - colony forming units per milliliter

F:\Projects\010-1904 William Knight 311-4\MUNI\Exhibits\2012\Feb 2013\Knight GWA_ANNUAL.dwg Layout: GWA 2011



PROJECT NO: 011-1712

DRAWN BY: KJT

DATE: 2.1.2013

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
POST COOL-OX MONITORING
KNIGHT PA 311-4
PARACHUTE, COLORADO

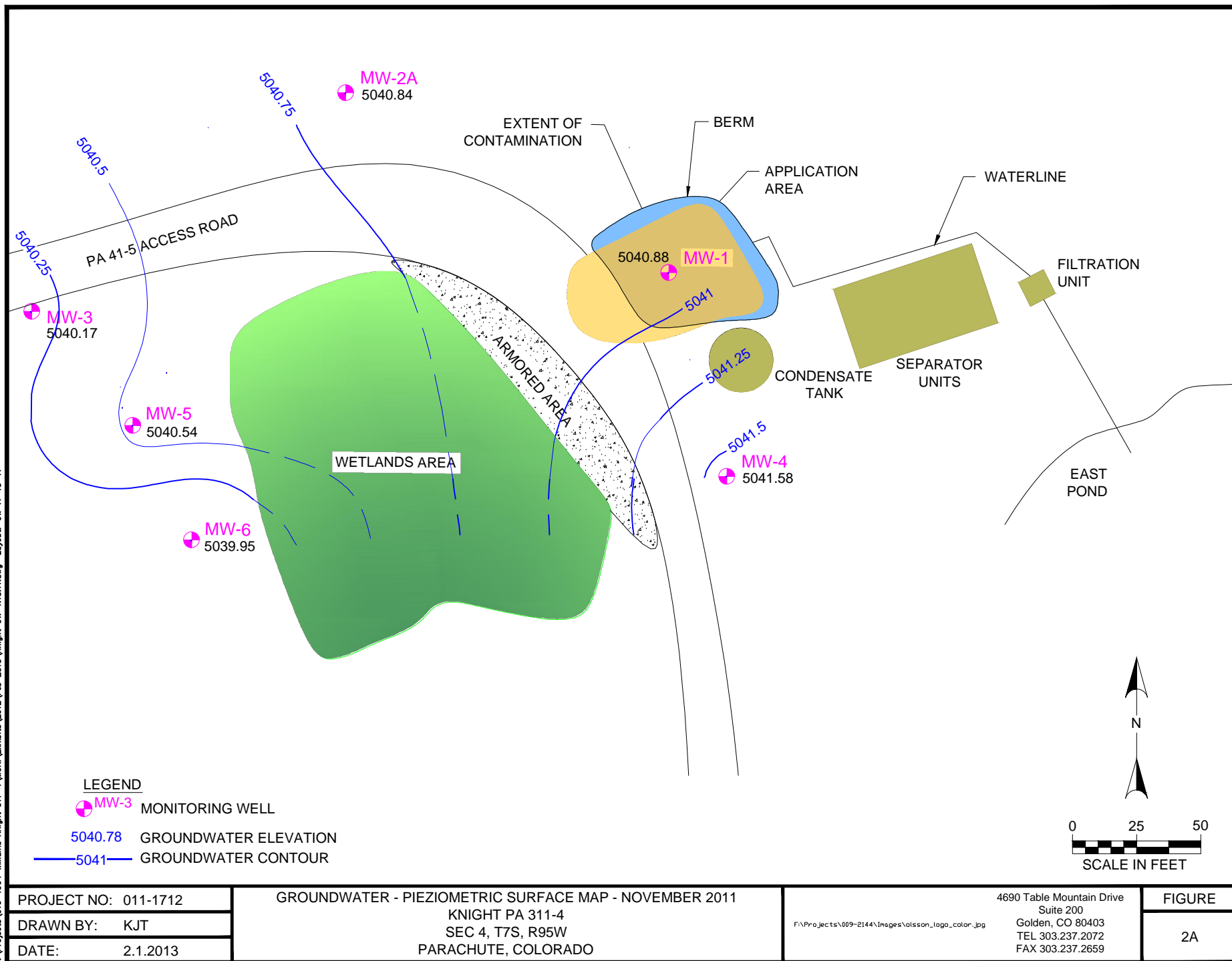
OLSSON
ASSOCIATES

4690 Table Mountain Drive
Suite 200
Golden, CO 80403
TEL 303.237.2072
FAX 303.237.2659

FIGURE

1

F:\Projects\010-1804 Williams Knight 311-4\MUNI\Exhibits\2012\Feb 2013\Knight GW-1.18.11.dwg Layout GW 11-18-11



PROJECT NO: 011-1712

DRAWN BY: KJT

DATE: 2.1.2013

GROUNDWATER - PIEZOMETRIC SURFACE MAP - NOVEMBER 2011
KNIGHT PA 311-4
SEC 4, T7S, R95W
PARACHUTE, COLORADO

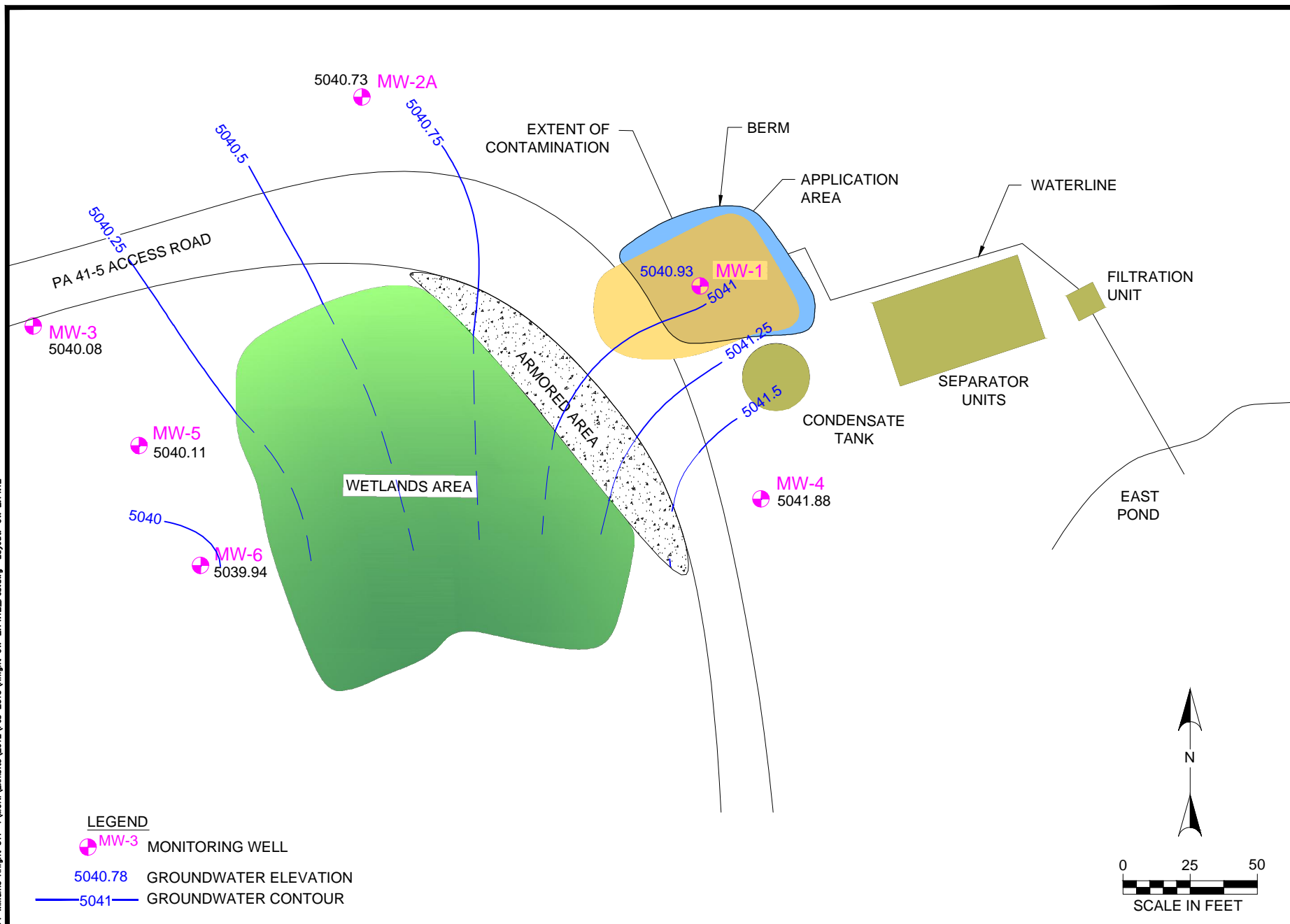
F:\Projects\009-2144\Images\olsson_logo_color.jpg

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Suite 200
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TEL 303.237.2072
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FIGURE

2A

F:\Projects\010-1904 Williams Knight 311-4\MUNI\Exhibits\2012\Feb 2013\Knight GW-2.14.12_Feb.dwg Layout GW 2.14.12



PROJECT NO: 011-1712

DRAWN BY: KJT

DATE: 2.1.2013

GROUNDWATER - PIEZOMETRIC SURFACE MAP - FEBRUARY 2012
KNIGHT PA 311-4
SEC 4, T7S, R95W
PARACHUTE, COLORADO

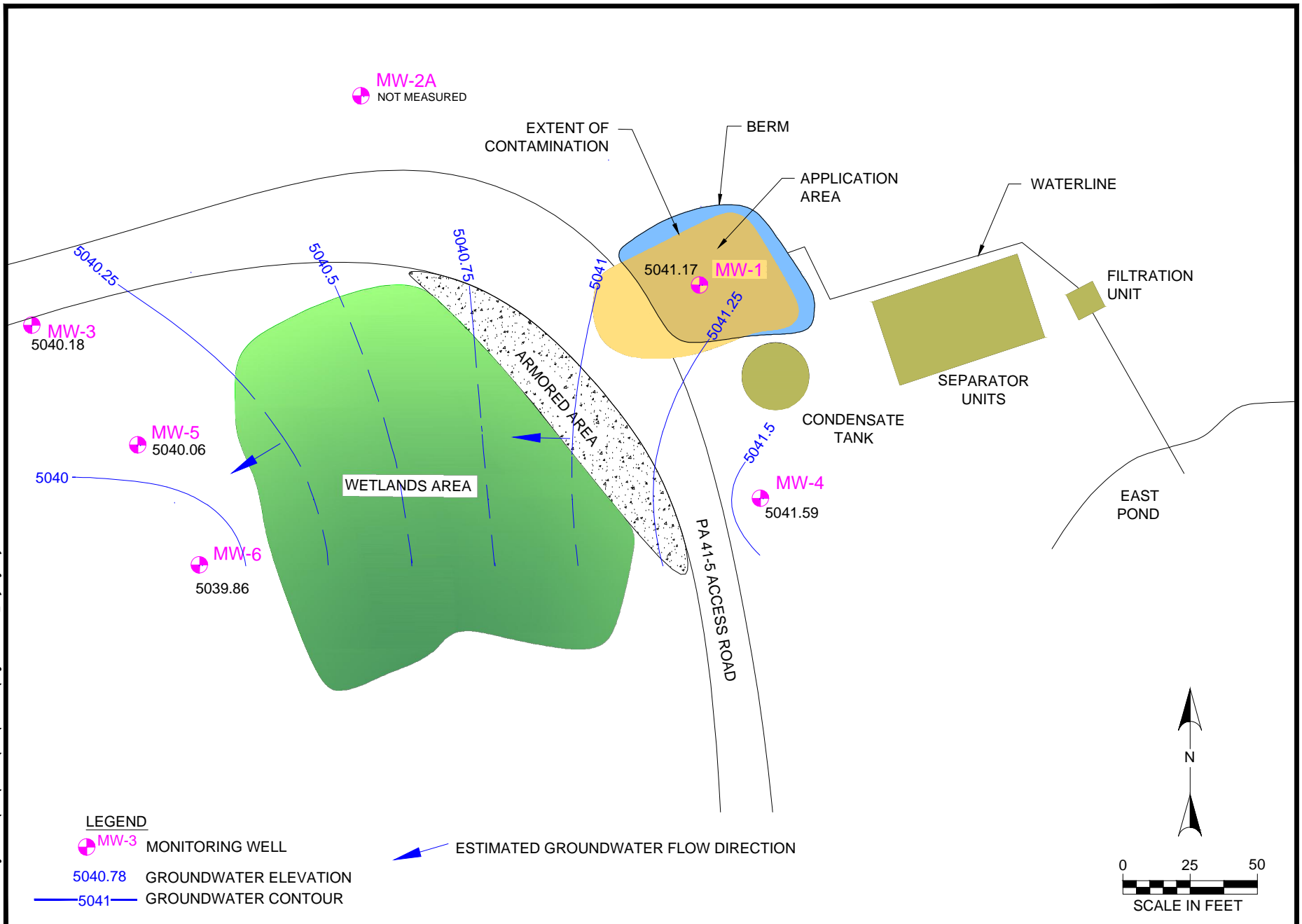
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FIGURE

2B

F:\Projects\010-1904 Williams Knight 311-4\MUNI\Exhibits\2012\Feb 2013\Knight GW 5.8.12_May.dwg Layout: GW 5.8.12



PROJECT NO: 011-1712

DRAWN BY: KJT

DATE: 2.1.2013

GROUNDWATER - PIEZIOMETRIC SURFACE MAP - MAY 2012
KNIGHT PA 311-4
SEC 4, T7S, R95W
PARACHUTE, COLORADO

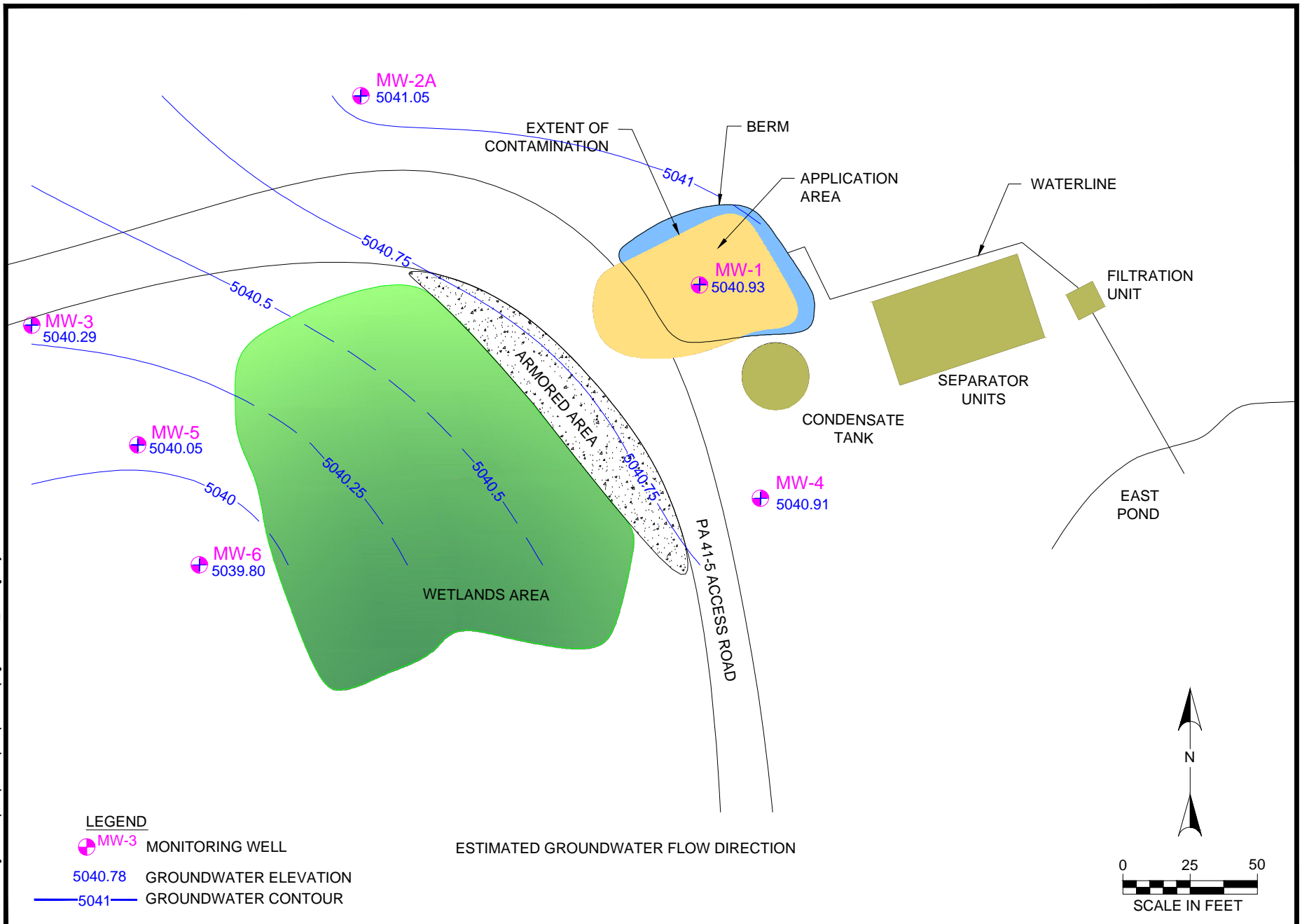
OLSSON
ASSOCIATES

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Suite 200
Golden, CO 80403
TEL 303.237.2072
FAX 303.237.2659

FIGURE

2C

F:\Projects\010-1904 Williams Knight 311-4\MUNI\Exhibits\2012\Feb 2013\Knight GW 8.12_AUG.dwg Layout GW 8.12



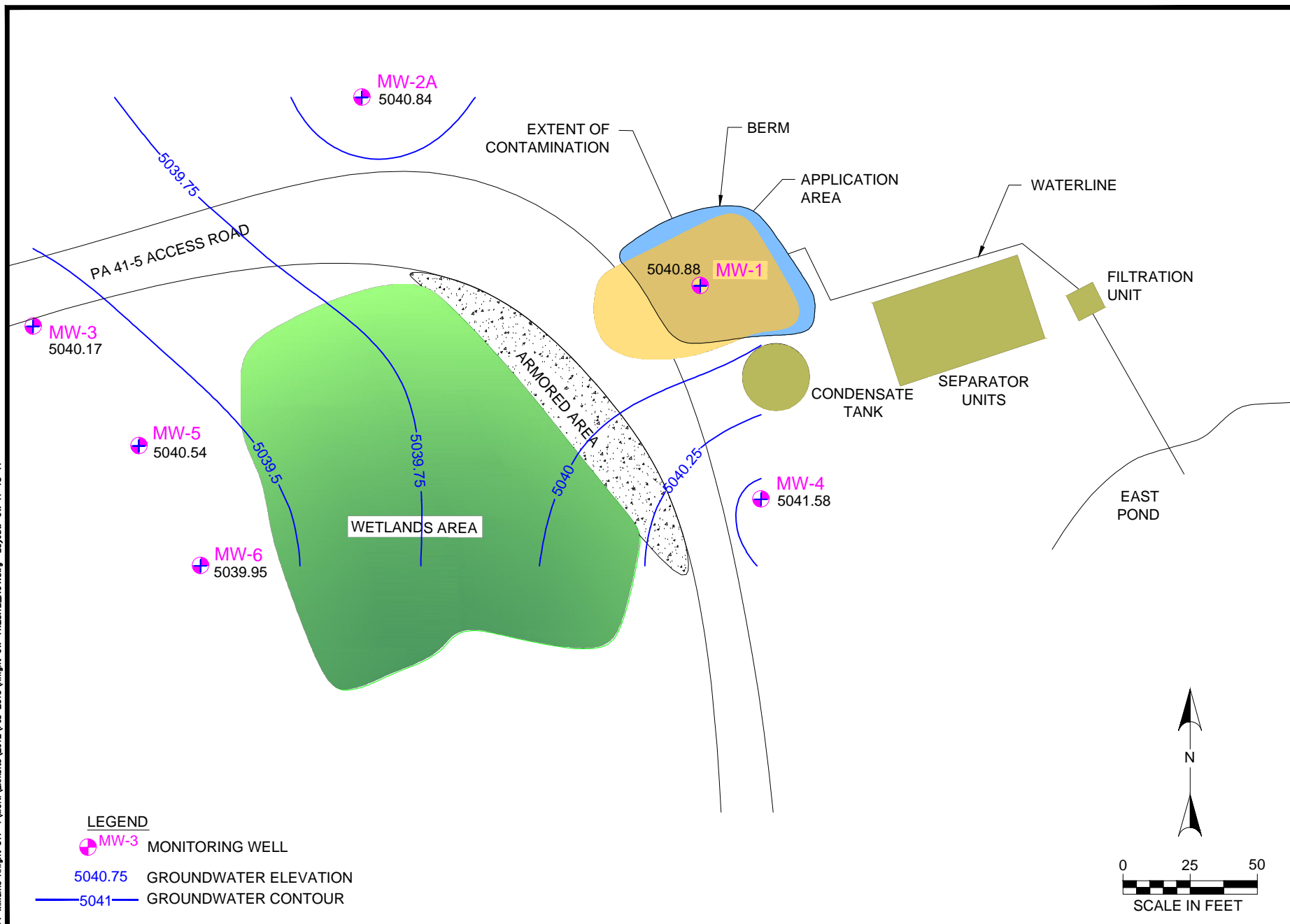
PROJECT NO:	011-1712
DRAWN BY:	KJT
DATE:	2.1.2013

GROUNDWATER - PIEZOMETRIC SURFACE MAP - AUGUST 2012
KNIGHT PA 311-4
SEC 4, T7S, R95W
PARACHUTE, COLORADO

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	Suite 200
	Golden, CO 80403
	TEL 303.237.2072 FAX 303.237.2659

FIGURE
2D

F:\Projects\010-1904 Williams Knight 311-4\MUNI\Exhibits\2012\Feb 2013\Knight GW-11.28.12_NOV.dwg Layout: GW 11-18-11



PROJECT NO: 011-1712

DRAWN BY: BRN

DATE: 2.1.2013

GROUNDWATER - PIEZIOMETRIC SURFACE MAP - NOVEMBER 2012
KNIGHT PA 311-4
SEC 4, T7S, R95W
PARACHUTE, COLORADO

OLSSON
ASSOCIATES

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FIGURE

2E

Attachment A

Cool-Ox™ Application Report

A Final Report for the Application of

Cool-Ox™



at
Williams Site
Knight 311
Garfield County
Parachute, CO

Sept. 12, 201
DTI Project # 1708



Prepared for
Gretchen Kohler
Sr. Principal Environmental Specialist
Williams Production RMT Co.
1001 17th Street
Suite 1200
Denver, Colorado, 80202

The Project:

Final Report for the In-Situ Cool-Ox[®] Treatment of NGP Condensate at the Williams Knight 311 site in Garfield County, Parachute, CO.

Introduction:

DeepEarth Technologies, Inc. (DTI) was invited by Williams Productions RMT Co. to present a proposal to design and implement a remedial program to locate and treat Natural Gas Condensate (NGC) at the Knight 311 site Located in Garfield County near Parachute, CO. NGC has been detected on a continuing basis in monitoring well MW-1. The main contaminant of concern (COC) is NGC.

Summary:

This document will provide Williams with an understanding of the remedial action at the site. As is sometimes the case, the original work plan for the Williams Knight 311 site varied due to site specific conditions. The lithology of this site is very heavily impacted with cobbles consistent with alluvial depositions. This created some difficulty for DTI to advance the drill steel and often bent the rods and destroyed the steel tips in the rods.



Project Objectives:

- 1) Locate and destroy the NGC on the Knight 311 property and reduce the levels in the ground water and in the soil to clean up standards.
- 2) Site investigation at the same time as remedial activities by monitoring reactions that surface once an IP is completed.
- 3) Locate the extents of any plume found within the VTI via GPS produced record (see attached DTI map).

Application:

The application was completed employing the Cool-Ox[®] DPT rig using 1 ½ " drill steel from a depth of three (3)' to nine (9)' feet below ground surface (fbgs). This VTI was obtained throughout the entire site. The proposed number of IP's was to be 115 set on a six foot matrix; this was not the case in the field. DTI injected 5,376 gallons of the Cool-Ox[®] reagent into 107 IP's set on an approximate six foot matrix. Multiple IP's in the MW-1

Project identified

NGC

MW-1

Changes in work scope

***Left to right
"Mushroomed" collars on
our drill steel to the presence
of cobble***

***Our crew straightening bent
rods***

Locate COC

Define contaminate plume

GPS Record

Vertical Treatment Interval

Injection points

Dailey breakdown**Health and safety****9/13/2011****9/14/2011****9/15/2011****9/16/2011****9/17/2011**

Left to right
Blue flags indicate IP's with
slight to no reaction, Red
flags indicate moderate to
heavy reaction

Strong reaction produced by
communication with MW-1

area were given multiple loads to focus on the “dirtiest” area that DTI discovered.

Injection Activities

On September 12, 2011 DTI DeepEarth Technologies (DTI) mobilized to the site to conduct a survey of the treatment area and to coordinate on-site injection activities. DTI personnel held a Site Specific Health and Safety (SSHS) meeting, wherein all points concerning general and specific safety requirements of the client, consultant, and DTI were discussed and understood. DTI established the location of the proposed IP's. The treatment area was laid out on an approximate 6-foot grid pattern DTI personnel positioned the injection equipment, and completed preparation to begin treatment of the Knight 311 site.

DTI Completed setup and began treatment of the injection area, injecting 192 gallons of Cool-Ox™ reagent into four injection points.

On September 13, 2011, DTI mobilized to the site and continued injection activities, injecting nine hundred and twelve gallons of Cool-Ox™ reagent into thirteen IP's. Some received multiple injections due to reaction and day lighting issues

On September 14, 2011 DTI continued injection activities injecting one thousand fifty six gallons of Cool-Ox™ reagent into twenty two IP's. Good reactions were noted at Multiple IP's.

On September 15, 2011 DTI continued injection activities injecting nine hundred sixty gallons of Cool-Ox™ reagent into twenty IP's. Good reaction was noted at multiple IP's.

On September 16, 2011 DTI continued injection activities injecting one thousand fifty six gallons of Cool-Ox™ reagent into twenty two IP's. Good reaction was noted at multiple IP's.

On September 17, 2011 DTI Completed injection activities, injecting one thousand two hundred gallons of Cool-Ox™ reagent into twenty five IP's Good reaction was noted at multiple IP's.



Conclusion

In the Knight 311-4 treatment area, a total of 5376 gallons of Cool-Ox™ reagent was injected into 107 IP's. The VTI, from approximately 3 to 9 feet bgs, was maintained and all IP's were sealed with bentonite.

Upon completion of the remedial work, the site was restored to a condition as close to that found prior to implementation of injection activities.

Final Note

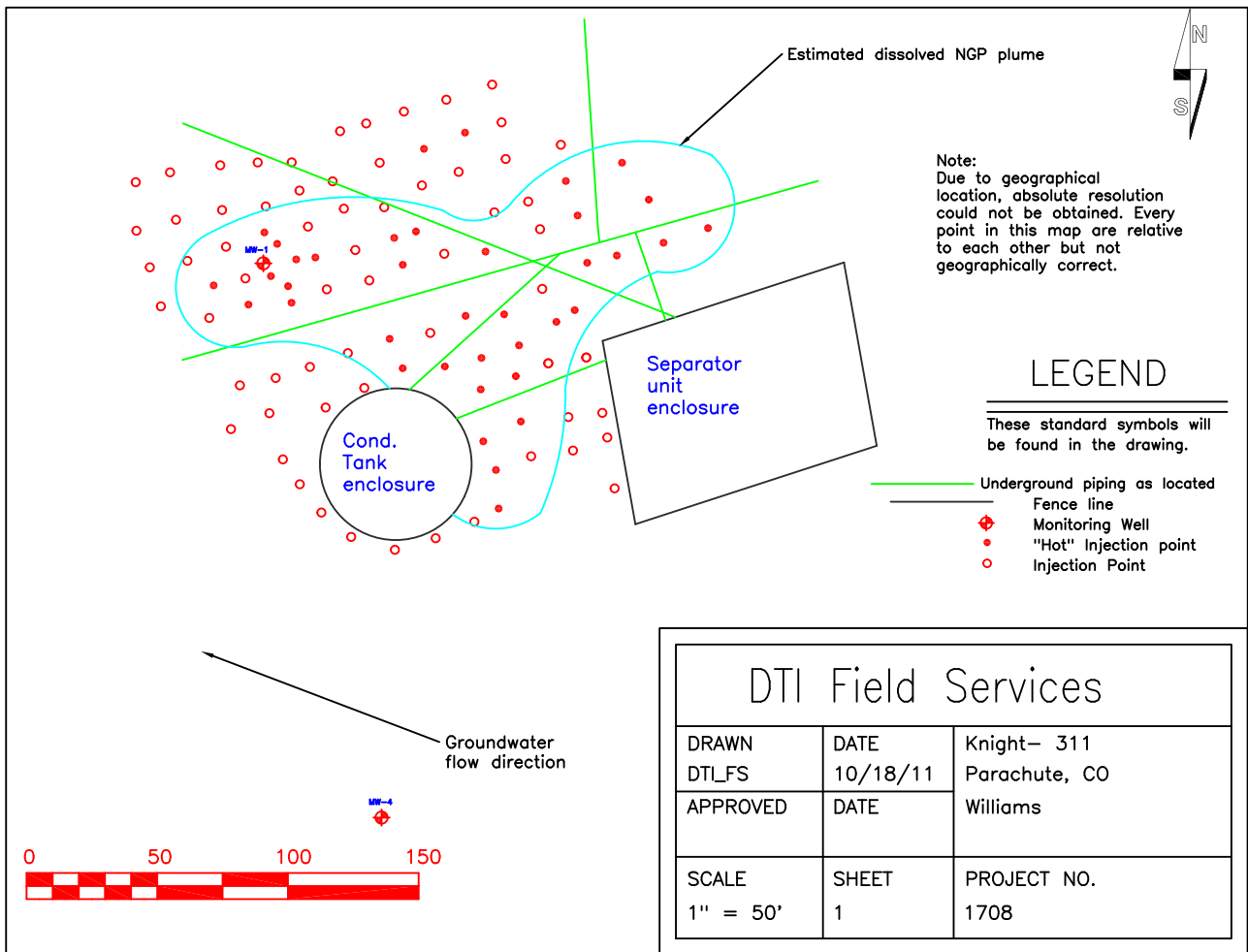
DTI believes that in the treatment area, significant reductions of contaminants in the soil and groundwater will be accomplished. DTI believes that the subsequent biological activity associated with all Cool-Ox™ injections will produce on-going remedial activity. DTI's Site Safety program was implemented at the onset of operations and no reportable incidents were suffered.

DTI would like to thank Williams for choosing the Cool-Ox™ Technology to remediate the Knight 311-4 site in Garfield County, Parachute CO. Should you have any questions or comments, please contact DTI via e-mail at info@deepearthtech.com or call toll free **(877)266-5691**.

Contact Info

info@deepearthtech.com

(877)266-5691



Attachment B

Laboratory Analytical Reports



12/01/11

Technical Report for

Olsson Associates

Knight Property/CO

KNIGHT PROPERTY

Accutest Job Number: T93164

Sampling Date: 11/18/11

Report to:

**Olsson Associates
4690 Table Mountain Dr. Suite 200
Golden, CO 80403
tdobransky@oaconsulting.com**

ATTN: Tim Dobransky

Total number of pages in report: 84



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

A handwritten signature in black ink that reads 'Paul K Canevaro'.

**Paul Canevaro
Laboratory Director**

Client Service contact: Sylvia Garza 713-271-4700

Certifications: TX (T104704220-11-5) AR (11-028-0) AZ (AZ0769) FL (E87628) KS (E-10366)
LA (85695/04004) OK (211-035)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.
Test results relate only to samples analyzed.

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Sample Summary

Olsson Associates

Job No: T93164

Knight Property/CO
Project No: KNIGHT PROPERTY

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
T93164-1	11/18/11	10:50	11/19/11	AQ	Ground Water	MW-1
T93164-2	11/18/11	11:35	11/19/11	AQ	Ground Water	MW-2A
T93164-3	11/18/11	11:50	11/19/11	AQ	Ground Water	MW-3
T93164-4	11/18/11	10:50	11/19/11	AQ	Ground Water	MW-4
T93164-5	11/18/11	12:35	11/19/11	AQ	Ground Water	MW-5
T93164-6	11/18/11	12:15	11/19/11	AQ	Ground Water	MW-6

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW-1	Date Sampled:	11/18/11
Lab Sample ID:	T93164-1	Date Received:	11/19/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C BY SIM SW846 3510C		
Project:	Knight Property/CO		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V8121.D	1	11/21/11	GJ	11/21/11	OP21192	EV464
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	0.20	ug/l	
208-96-8	Acenaphthylene	ND	0.20	ug/l	
120-12-7	Anthracene	ND	0.20	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.20	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.20	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.20	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.20	ug/l	
218-01-9	Chrysene	ND	0.20	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.20	ug/l	
206-44-0	Fluoranthene	ND	0.20	ug/l	
86-73-7	Fluorene	ND	0.20	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.20	ug/l	
90-12-0	1-Methylnaphthalene	1.1	0.20	ug/l	
91-57-6	2-Methylnaphthalene	1.6	0.20	ug/l	
91-20-3	Naphthalene	2.9	0.20	ug/l	
85-01-8	Phenanthrene	ND	0.20	ug/l	
129-00-0	Pyrene	ND	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	66%		17-131%
321-60-8	2-Fluorobiphenyl	55%		15-137%
1718-51-0	Terphenyl-d14	70%		10-160%

ND = Not detected

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

Page 1 of 1

Client Sample ID:	MW-1	Date Sampled:	11/18/11
Lab Sample ID:	T93164-1	Date Received:	11/19/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8015		
Project:	Knight Property/CO		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	BB0010482.D	1	11/23/11	LB	n/a	n/a	GBB520
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	Units	Q
	TPH-GRO (C6-C10)	1.68	0.050	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	82%		42-123%
98-08-8	aaa-Trifluorotoluene	111%		51-130%

(a) Sample was not preserved to a pH < 2.

ND = Not detected
 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:	11/18/11
Lab Sample ID:	T93164-1	Date Received:	11/19/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8021B		
Project:	Knight Property/CO		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TT002565.D	1	11/22/11	WV	n/a	n/a	GTT114
Run #2	TT002593.D	5	11/22/11	WV	n/a	n/a	GTT115

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

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	7.9	1.0	ug/l	
108-88-3	Toluene	1.4	1.0	ug/l	
100-41-4	Ethylbenzene	24.3	1.0	ug/l	
1330-20-7	Xylenes (total)	477 ^a	15	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	119%	106%	58-125%
98-08-8	aaa-Trifluorotoluene	103%	101%	73-139%

(a) Result is from Run# 2

ND = Not detected

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

Page 1 of 1

Client Sample ID:	MW-1	Date Sampled:	11/18/11
Lab Sample ID:	T93164-1	Date Received:	11/19/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8015 M SW846 3510C		
Project:	Knight Property/CO		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CC223678.D	1	11/22/11	HD	11/21/11	OP21195	GCC1237
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	0.596	0.10	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	64%		25-112%	

ND = Not detected
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: 11/18/11
Lab Sample ID: T93164-1	Date Received: 11/19/11
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: Knight Property/CO	

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium ^a	173000	1000	ug/l	1	11/23/11	11/23/11 AFL	SW846 6010C ¹	SW846 3010A ²
Iron ^a	26500	300	ug/l	1	11/23/11	11/23/11 AFL	SW846 6010C ¹	SW846 3010A ²
Magnesium ^a	36700	5000	ug/l	1	11/23/11	11/23/11 AFL	SW846 6010C ¹	SW846 3010A ²
Manganese ^a	1130	15	ug/l	1	11/23/11	11/23/11 AFL	SW846 6010C ¹	SW846 3010A ²
Potassium ^a	< 10000	10000	ug/l	1	11/23/11	11/23/11 AFL	SW846 6010C ¹	SW846 3010A ²
Selenium ^a	< 10	10	ug/l	1	11/23/11	11/23/11 AFL	SW846 6010C ¹	SW846 3010A ²
Sodium ^a	50200	10000	ug/l	1	11/23/11	11/23/11 AFL	SW846 6010C ¹	SW846 3010A ²

(1) Instrument QC Batch: F:MA9398

(2) Prep QC Batch: F:MP21762

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-1
Lab Sample ID: T93164-1
Matrix: AQ - Ground Water
Project: Knight Property/CO

Date Sampled: 11/18/11
Date Received: 11/19/11
Percent Solids: n/a

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate	260	5.0	mg/l	1	11/23/11	RA	SM 4500 CO2 D
Alkalinity, Carbonate	< 5.0	5.0	mg/l	1	11/23/11	RA	SM18 2320B
Alkalinity, Total as CaCO3	264	5.0	mg/l	1	11/23/11	RA	SM 2320B
BOD, 5 Day	10.5	6.0	mg/l	1	11/20/11 08:46	OT	SM 5210B
Bromide	< 0.50	0.50	mg/l	1	11/19/11 13:10	ES	EPA 300/SW846 9056
Chemical Oxygen Demand	31.6	20	mg/l	1	11/30/11	SS	SM 5220D
Chloride	16.0	0.50	mg/l	1	11/20/11 16:47	ES	EPA 300/SW846 9056
Hydroxide Alkalinity	< 5.0	5.0	mg/l	1	11/23/11	RA	SM18 4500CO2D
Nitrogen, Nitrate	0.66	0.50	mg/l	1	11/19/11 13:10	ES	EPA 300/SW846 9056
Nitrogen, Nitrite	< 0.50	0.50	mg/l	1	11/19/11 13:10	ES	EPA 300/SW846 9056
Phosphorus, Total	3.5	0.20	mg/l	10	11/29/11 14:30	BG	EPA 365.2
Plate Count, Total ^a	1590000	1	cfu/ml	1	11/19/11 11:30	DP	SM21 9215B
Sulfate	16.8	0.50	mg/l	1	11/20/11 16:47	ES	EPA 300/SW846 9056
Total Organic Carbon	13.2	1.0	mg/l	1	11/22/11 20:37	MC	SM5310B/9060A
pH	8.34		su	1	11/20/11	OT	SM 4500H+ B/9040

(a) Sample received out of holding time.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-2A	Date Sampled:	11/18/11
Lab Sample ID:	T93164-2	Date Received:	11/19/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C BY SIM SW846 3510C		
Project:	Knight Property/CO		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V8116.D	1	11/21/11	GJ	11/21/11	OP21192	EV464
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	0.20	ug/l	
208-96-8	Acenaphthylene	ND	0.20	ug/l	
120-12-7	Anthracene	ND	0.20	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.20	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.20	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.20	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.20	ug/l	
218-01-9	Chrysene	ND	0.20	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.20	ug/l	
206-44-0	Fluoranthene	ND	0.20	ug/l	
86-73-7	Fluorene	ND	0.20	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.20	ug/l	
90-12-0	1-Methylnaphthalene	ND	0.20	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.20	ug/l	
91-20-3	Naphthalene	ND	0.20	ug/l	
85-01-8	Phenanthrene	ND	0.20	ug/l	
129-00-0	Pyrene	ND	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	67%		17-131%
321-60-8	2-Fluorobiphenyl	60%		15-137%
1718-51-0	Terphenyl-d14	70%		10-160%

ND = Not detected

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

Page 1 of 1

Client Sample ID:	MW-2A	Date Sampled:	11/18/11
Lab Sample ID:	T93164-2	Date Received:	11/19/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8015		
Project:	Knight Property/CO		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	HH0007226.D	1	11/22/11	LB	n/a	n/a	GHH354
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

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

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	78%		42-123%
98-08-8	aaa-Trifluorotoluene	90%		51-130%

(a) Sample was not preserved to a pH < 2.

ND = Not detected
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:	T93164-2	Date Sampled: 11/18/11
Matrix:	AQ - Ground Water	Date Received: 11/19/11
Method:	SW846 8021B	Percent Solids: n/a
Project:	Knight Property/CO	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA003469.D	1	11/24/11	WV	n/a	n/a	GAA154
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	94%		58-125%
98-08-8	aaa-Trifluorotoluene	105%		73-139%

ND = Not detected
 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

Page 1 of 1

Client Sample ID:	MW-2A	Date Sampled:	11/18/11
Lab Sample ID:	T93164-2	Date Received:	11/19/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8015 M SW846 3510C		
Project:	Knight Property/CO		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CC223679.D	1	11/22/11	HD	11/21/11	OP21195	GCC1237
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	ND	0.10	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	73%		25-112%	

ND = Not detected
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: T93164-2
Matrix: AQ - Ground Water
Project: Knight Property/CO

Date Sampled: 11/18/11
Date Received: 11/19/11
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium ^a	129000	1000	ug/l	1	11/23/11	11/23/11	AFL SW846 6010C ¹	SW846 3010A ²
Iron ^a	14000	300	ug/l	1	11/23/11	11/23/11	AFL SW846 6010C ¹	SW846 3010A ²
Magnesium ^a	51400	5000	ug/l	1	11/23/11	11/23/11	AFL SW846 6010C ¹	SW846 3010A ²
Manganese ^a	1720	15	ug/l	1	11/23/11	11/23/11	AFL SW846 6010C ¹	SW846 3010A ²
Potassium ^a	< 10000	10000	ug/l	1	11/23/11	11/23/11	AFL SW846 6010C ¹	SW846 3010A ²
Selenium ^a	< 10	10	ug/l	1	11/23/11	11/23/11	AFL SW846 6010C ¹	SW846 3010A ²
Sodium ^a	60400	10000	ug/l	1	11/23/11	11/23/11	AFL SW846 6010C ¹	SW846 3010A ²

(1) Instrument QC Batch: F:MA9398

(2) Prep QC Batch: F:MP21762

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-2A
Lab Sample ID: T93164-2
Matrix: AQ - Ground Water
Project: Knight Property/CO

Date Sampled: 11/18/11
Date Received: 11/19/11
Percent Solids: n/a

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate	372	5.0	mg/l	1	11/23/11	RA	SM 4500 CO2 D
Alkalinity, Carbonate	< 5.0	5.0	mg/l	1	11/23/11	RA	SM18 2320B
Alkalinity, Total as CaCO3	374	5.0	mg/l	1	11/23/11	RA	SM 2320B
BOD, 5 Day	< 15	15	mg/l	1	11/20/11 08:53	OT	SM 5210B
Bromide	< 0.50	0.50	mg/l	1	11/19/11 14:01	ES	EPA 300/SW846 9056
Chemical Oxygen Demand	66.9	20	mg/l	1	11/30/11	SS	SM 5220D
Chloride	15.4	0.50	mg/l	1	11/20/11 17:04	ES	EPA 300/SW846 9056
Hydroxide Alkalinity	< 5.0	5.0	mg/l	1	11/23/11	RA	SM18 4500CO2D
Nitrogen, Nitrate	0.57	0.50	mg/l	1	11/19/11 14:01	ES	EPA 300/SW846 9056
Nitrogen, Nitrite	< 0.50	0.50	mg/l	1	11/19/11 14:01	ES	EPA 300/SW846 9056
Phosphorus, Total	0.89	0.10	mg/l	5	11/29/11 14:30	BG	EPA 365.2
Plate Count, Total ^a	70000	1	cfu/ml	1	11/19/11 11:30	DP	SM21 9215B
Sulfate	16.8	0.50	mg/l	1	11/20/11 17:04	ES	EPA 300/SW846 9056
Total Organic Carbon	4.5	1.0	mg/l	1	11/22/11 21:05	MC	SM5310B/9060A
pH	7.14		su	1	11/20/11	OT	SM 4500H+ B/9040

(a) Sample received out of holding time.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-3	Date Sampled:	11/18/11
Lab Sample ID:	T93164-3	Date Received:	11/19/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C BY SIM SW846 3510C		
Project:	Knight Property/CO		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V8117.D	1	11/21/11	GJ	11/21/11	OP21192	EV464
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	0.20	ug/l	
208-96-8	Acenaphthylene	ND	0.20	ug/l	
120-12-7	Anthracene	ND	0.20	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.20	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.20	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.20	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.20	ug/l	
218-01-9	Chrysene	ND	0.20	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.20	ug/l	
206-44-0	Fluoranthene	ND	0.20	ug/l	
86-73-7	Fluorene	ND	0.20	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.20	ug/l	
90-12-0	1-Methylnaphthalene	ND	0.20	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.20	ug/l	
91-20-3	Naphthalene	ND	0.20	ug/l	
85-01-8	Phenanthrene	ND	0.20	ug/l	
129-00-0	Pyrene	ND	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	58%		17-131%
321-60-8	2-Fluorobiphenyl	57%		15-137%
1718-51-0	Terphenyl-d14	64%		10-160%

ND = Not detected

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

Page 1 of 1

Client Sample ID:	MW-3	Date Sampled:	11/18/11
Lab Sample ID:	T93164-3	Date Received:	11/19/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8015		
Project:	Knight Property/CO		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	HH0007227.D	1	11/22/11	LB	n/a	n/a	GHH354
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

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

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	81%		42-123%
98-08-8	aaa-Trifluorotoluene	89%		51-130%

(a) Sample was not preserved to a pH < 2.

ND = Not detected
 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:	11/18/11
Lab Sample ID:	T93164-3	Date Received:	11/19/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8021B		
Project:	Knight Property/CO		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TT002567.D	1	11/22/11	WV	n/a	n/a	GTT114
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	100%		58-125%
98-08-8	aaa-Trifluorotoluene	100%		73-139%

ND = Not detected
 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

Page 1 of 1

Client Sample ID:	MW-3	Date Sampled:	11/18/11
Lab Sample ID:	T93164-3	Date Received:	11/19/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8015 M SW846 3510C		
Project:	Knight Property/CO		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CC223715.D	20	11/28/11	HD	11/21/11	OP21195	GCC1238
Run #2							

	Initial Volume	Final Volume
Run #1	930 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	25.1	2.2	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	0% ^a		25-112%	

(a) Outside control limits due to dilution.

ND = Not detected
 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: 11/18/11
Lab Sample ID: T93164-3	Date Received: 11/19/11
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: Knight Property/CO	

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium ^a	76700	1000	ug/l	1	11/23/11	11/23/11	AFL SW846 6010C ¹	SW846 3010A ²
Iron ^a	4760	300	ug/l	1	11/23/11	11/23/11	AFL SW846 6010C ¹	SW846 3010A ²
Magnesium ^a	37200	5000	ug/l	1	11/23/11	11/23/11	AFL SW846 6010C ¹	SW846 3010A ²
Manganese ^a	718	15	ug/l	1	11/23/11	11/23/11	AFL SW846 6010C ¹	SW846 3010A ²
Potassium ^a	< 10000	10000	ug/l	1	11/23/11	11/23/11	AFL SW846 6010C ¹	SW846 3010A ²
Selenium ^a	< 10	10	ug/l	1	11/23/11	11/23/11	AFL SW846 6010C ¹	SW846 3010A ²
Sodium ^a	56100	10000	ug/l	1	11/23/11	11/23/11	AFL SW846 6010C ¹	SW846 3010A ²

(1) Instrument QC Batch: F:MA9398

(2) Prep QC Batch: F:MP21762

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-3
Lab Sample ID: T93164-3
Matrix: AQ - Ground Water
Project: Knight Property/CO

Date Sampled: 11/18/11
Date Received: 11/19/11
Percent Solids: n/a

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate	384	5.0	mg/l	1	11/23/11	RA	SM 4500 CO2 D
Alkalinity, Carbonate	< 5.0	5.0	mg/l	1	11/23/11	RA	SM18 2320B
Alkalinity, Total as CaCO3	386	5.0	mg/l	1	11/23/11	RA	SM 2320B
BOD, 5 Day	11.1	6.0	mg/l	1	11/20/11 08:54	OT	SM 5210B
Bromide	< 0.50	0.50	mg/l	1	11/19/11 14:18	ES	EPA 300/SW846 9056
Chemical Oxygen Demand	21.0	20	mg/l	1	11/30/11	SS	SM 5220D
Chloride	16.7	0.50	mg/l	1	11/20/11 17:21	ES	EPA 300/SW846 9056
Hydroxide Alkalinity	< 5.0	5.0	mg/l	1	11/23/11	RA	SM18 4500CO2D
Nitrogen, Nitrate	0.58	0.50	mg/l	1	11/19/11 14:18	ES	EPA 300/SW846 9056
Nitrogen, Nitrite	< 0.50	0.50	mg/l	1	11/19/11 14:18	ES	EPA 300/SW846 9056
Phosphorus, Total	0.45	0.040	mg/l	2	11/29/11 14:30	BG	EPA 365.2
Plate Count, Total ^a	120000	1	cfu/ml	1	11/19/11 11:30	DP	SM21 9215B
Sulfate	10.9	0.50	mg/l	1	11/20/11 17:21	ES	EPA 300/SW846 9056
Total Organic Carbon	4.5	1.0	mg/l	1	11/22/11 21:33	MC	SM5310B/9060A
pH	7.10		su	1	11/20/11	OT	SM 4500H+ B/9040

(a) Sample received out of holding time.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-4	Date Sampled:	11/18/11
Lab Sample ID:	T93164-4	Date Received:	11/19/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C BY SIM SW846 3510C		
Project:	Knight Property/CO		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V8118.D	1	11/21/11	GJ	11/21/11	OP21192	EV464
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	0.20	ug/l	
208-96-8	Acenaphthylene	ND	0.20	ug/l	
120-12-7	Anthracene	ND	0.20	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.20	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.20	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.20	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.20	ug/l	
218-01-9	Chrysene	ND	0.20	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.20	ug/l	
206-44-0	Fluoranthene	ND	0.20	ug/l	
86-73-7	Fluorene	ND	0.20	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.20	ug/l	
90-12-0	1-Methylnaphthalene	ND	0.20	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.20	ug/l	
91-20-3	Naphthalene	ND	0.20	ug/l	
85-01-8	Phenanthrene	ND	0.20	ug/l	
129-00-0	Pyrene	ND	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	67%		17-131%
321-60-8	2-Fluorobiphenyl	64%		15-137%
1718-51-0	Terphenyl-d14	79%		10-160%

ND = Not detected

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

Page 1 of 1

Client Sample ID:	MW-4	Date Sampled:	11/18/11
Lab Sample ID:	T93164-4	Date Received:	11/19/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8015		
Project:	Knight Property/CO		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	HH0007229.D	1	11/22/11	LB	n/a	n/a	GHH354
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	Units	Q
	TPH-GRO (C6-C10)	ND	0.050	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
460-00-4	4-Bromofluorobenzene	80%		42-123%	
98-08-8	aaa-Trifluorotoluene	88%		51-130%	

(a) Sample was not preserved to a pH < 2.

ND = Not detected
 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:	T93164-4	Date Sampled: 11/18/11
Matrix:	AQ - Ground Water	Date Received: 11/19/11
Method:	SW846 8021B	Percent Solids: n/a
Project:	Knight Property/CO	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TT002572.D	1	11/22/11	WV	n/a	n/a	GTT114
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	99%		58-125%
98-08-8	aaa-Trifluorotoluene	100%		73-139%

ND = Not detected
 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:	11/18/11
Lab Sample ID:	T93164-4	Date Received:	11/19/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8015 M SW846 3510C		
Project:	Knight Property/CO		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CC223681.D	1	11/23/11	HD	11/21/11	OP21195	GCC1237
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	ND	0.10	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	83%		25-112%	

ND = Not detected
 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: T93164-4
Matrix: AQ - Ground Water
Project: Knight Property/CO

Date Sampled: 11/18/11
Date Received: 11/19/11
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium ^a	73900	1000	ug/l	1	11/23/11	11/23/11 AFL	SW846 6010C ¹	SW846 3010A ²
Iron ^a	3520	300	ug/l	1	11/23/11	11/23/11 AFL	SW846 6010C ¹	SW846 3010A ²
Magnesium ^a	40600	5000	ug/l	1	11/23/11	11/23/11 AFL	SW846 6010C ¹	SW846 3010A ²
Manganese ^a	1740	15	ug/l	1	11/23/11	11/23/11 AFL	SW846 6010C ¹	SW846 3010A ²
Potassium ^a	< 10000	10000	ug/l	1	11/23/11	11/23/11 AFL	SW846 6010C ¹	SW846 3010A ²
Selenium ^a	< 10	10	ug/l	1	11/23/11	11/23/11 AFL	SW846 6010C ¹	SW846 3010A ²
Sodium ^a	62100	10000	ug/l	1	11/23/11	11/23/11 AFL	SW846 6010C ¹	SW846 3010A ²

(1) Instrument QC Batch: F:MA9398

(2) Prep QC Batch: F:MP21762

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-4
Lab Sample ID: T93164-4
Matrix: AQ - Ground Water
Project: Knight Property/CO

Date Sampled: 11/18/11
Date Received: 11/19/11
Percent Solids: n/a

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate	392	5.0	mg/l	1	11/23/11	RA	SM 4500 CO2 D
Alkalinity, Carbonate	< 5.0	5.0	mg/l	1	11/23/11	RA	SM18 2320B
Alkalinity, Total as CaCO3	396	5.0	mg/l	1	11/23/11	RA	SM 2320B
BOD, 5 Day	8.1	6.0	mg/l	1	11/20/11 08:50	OT	SM 5210B
Bromide	< 0.50	0.50	mg/l	1	11/19/11 14:35	ES	EPA 300/SW846 9056
Chemical Oxygen Demand	28.1	20	mg/l	1	11/30/11	SS	SM 5220D
Chloride	14.1	0.50	mg/l	1	11/20/11 17:38	ES	EPA 300/SW846 9056
Hydroxide Alkalinity	< 5.0	5.0	mg/l	1	11/23/11	RA	SM18 4500CO2D
Nitrogen, Nitrate	< 0.50	0.50	mg/l	1	11/19/11 14:35	ES	EPA 300/SW846 9056
Nitrogen, Nitrite	< 0.50	0.50	mg/l	1	11/19/11 14:35	ES	EPA 300/SW846 9056
Phosphorus, Total	0.14	0.020	mg/l	1	11/29/11 14:30	BG	EPA 365.2
Plate Count, Total ^a	120000	1	cfu/ml	1	11/19/11 11:30	DP	SM21 9215B
Sulfate	36.2	1.0	mg/l	2	11/21/11 04:07	ES	EPA 300/SW846 9056
Total Organic Carbon	4.8	1.0	mg/l	1	11/22/11 22:01	MC	SM5310B/9060A
pH	7.18		su	1	11/20/11	OT	SM 4500H+ B/9040

(a) Sample received out of holding time.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-5	Date Sampled:	11/18/11
Lab Sample ID:	T93164-5	Date Received:	11/19/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C BY SIM SW846 3510C		
Project:	Knight Property/CO		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V8119.D	1	11/21/11	GJ	11/21/11	OP21192	EV464
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	0.20	ug/l	
208-96-8	Acenaphthylene	ND	0.20	ug/l	
120-12-7	Anthracene	ND	0.20	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.20	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.20	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.20	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.20	ug/l	
218-01-9	Chrysene	ND	0.20	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.20	ug/l	
206-44-0	Fluoranthene	ND	0.20	ug/l	
86-73-7	Fluorene	ND	0.20	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.20	ug/l	
90-12-0	1-Methylnaphthalene	ND	0.20	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.20	ug/l	
91-20-3	Naphthalene	ND	0.20	ug/l	
85-01-8	Phenanthrene	ND	0.20	ug/l	
129-00-0	Pyrene	ND	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	69%		17-131%
321-60-8	2-Fluorobiphenyl	66%		15-137%
1718-51-0	Terphenyl-d14	70%		10-160%

ND = Not detected

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:	11/18/11
Lab Sample ID:	T93164-5	Date Received:	11/19/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8015		
Project:	Knight Property/CO		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	HH0007228.D	1	11/22/11	LB	n/a	n/a	GHH354
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	Units	Q
	TPH-GRO (C6-C10)	ND	0.050	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
460-00-4	4-Bromofluorobenzene	80%		42-123%	
98-08-8	aaa-Trifluorotoluene	89%		51-130%	

(a) Sample was not preserved to a pH < 2.

ND = Not detected
 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:	11/18/11
Lab Sample ID:	T93164-5	Date Received:	11/19/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8021B		
Project:	Knight Property/CO		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TT002573.D	1	11/22/11	WV	n/a	n/a	GTT114
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	98%		58-125%
98-08-8	aaa-Trifluorotoluene	99%		73-139%

ND = Not detected
 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:	11/18/11
Lab Sample ID:	T93164-5	Date Received:	11/19/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8015 M SW846 3510C		
Project:	Knight Property/CO		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CC223682.D	1	11/23/11	HD	11/21/11	OP21195	GCC1237
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	ND	0.10	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	74%		25-112%	

ND = Not detected
 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: 11/18/11
Lab Sample ID: T93164-5	Date Received: 11/19/11
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: Knight Property/CO	

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium ^a	119000	1000	ug/l	1	11/23/11	11/23/11 AFL	SW846 6010C ¹	SW846 3010A ²
Iron ^a	18900	300	ug/l	1	11/23/11	11/23/11 AFL	SW846 6010C ¹	SW846 3010A ²
Magnesium ^a	45600	5000	ug/l	1	11/23/11	11/23/11 AFL	SW846 6010C ¹	SW846 3010A ²
Manganese ^a	977	15	ug/l	1	11/23/11	11/23/11 AFL	SW846 6010C ¹	SW846 3010A ²
Potassium ^a	< 10000	10000	ug/l	1	11/23/11	11/23/11 AFL	SW846 6010C ¹	SW846 3010A ²
Selenium ^a	< 10	10	ug/l	1	11/23/11	11/23/11 AFL	SW846 6010C ¹	SW846 3010A ²
Sodium ^a	55800	10000	ug/l	1	11/23/11	11/23/11 AFL	SW846 6010C ¹	SW846 3010A ²

(1) Instrument QC Batch: F:MA9398

(2) Prep QC Batch: F:MP21762

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-5
Lab Sample ID: T93164-5
Matrix: AQ - Ground Water
Project: Knight Property/CO

Date Sampled: 11/18/11
Date Received: 11/19/11
Percent Solids: n/a

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate	364	5.0	mg/l	1	11/23/11	RA	SM 4500 CO2 D
Alkalinity, Carbonate	< 5.0	5.0	mg/l	1	11/23/11	RA	SM18 2320B
Alkalinity, Total as CaCO ₃	366	5.0	mg/l	1	11/23/11	RA	SM 2320B
BOD, 5 Day	< 15	15	mg/l	1	11/20/11 08:57	OT	SM 5210B
Bromide	< 0.50	0.50	mg/l	1	11/19/11 14:52	ES	EPA 300/SW846 9056
Chemical Oxygen Demand	40.4	20	mg/l	1	11/30/11	SS	SM 5220D
Chloride	18.1	0.50	mg/l	1	11/20/11 17:55	ES	EPA 300/SW846 9056
Hydroxide Alkalinity	< 5.0	5.0	mg/l	1	11/23/11	RA	SM18 4500CO2D
Nitrogen, Nitrate	0.51	0.50	mg/l	1	11/19/11 14:52	ES	EPA 300/SW846 9056
Nitrogen, Nitrite	< 0.50	0.50	mg/l	1	11/19/11 14:52	ES	EPA 300/SW846 9056
Phosphorus, Total	1.2	0.010	mg/l	5	11/29/11 14:30	BG	EPA 365.2
Plate Count, Total ^a	180000	1	cfu/ml	1	11/19/11 11:30	DP	SM21 9215B
Sulfate	16.2	0.50	mg/l	1	11/20/11 17:55	ES	EPA 300/SW846 9056
Total Organic Carbon	6.1	1.0	mg/l	1	11/22/11 22:29	MC	SM5310B/9060A
pH	7.22		su	1	11/20/11	OT	SM 4500H+ B/9040

(a) Sample received out of holding time.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-6	Date Sampled:	11/18/11
Lab Sample ID:	T93164-6	Date Received:	11/19/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C BY SIM SW846 3510C		
Project:	Knight Property/CO		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V8120.D	1	11/21/11	GJ	11/21/11	OP21192	EV464
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	0.20	ug/l	
208-96-8	Acenaphthylene	ND	0.20	ug/l	
120-12-7	Anthracene	ND	0.20	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.20	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.20	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.20	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.20	ug/l	
218-01-9	Chrysene	ND	0.20	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.20	ug/l	
206-44-0	Fluoranthene	ND	0.20	ug/l	
86-73-7	Fluorene	ND	0.20	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.20	ug/l	
90-12-0	1-Methylnaphthalene	ND	0.20	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.20	ug/l	
91-20-3	Naphthalene	ND	0.20	ug/l	
85-01-8	Phenanthrene	ND	0.20	ug/l	
129-00-0	Pyrene	ND	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	56%		17-131%
321-60-8	2-Fluorobiphenyl	56%		15-137%
1718-51-0	Terphenyl-d14	68%		10-160%

ND = Not detected

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-6	Date Sampled:	11/18/11
Lab Sample ID:	T93164-6	Date Received:	11/19/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8015		
Project:	Knight Property/CO		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	HH0007237.D	1	11/22/11	LB	n/a	n/a	GHH354
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	Units	Q
	TPH-GRO (C6-C10)	ND	0.050	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
460-00-4	4-Bromofluorobenzene	80%		42-123%	
98-08-8	aaa-Trifluorotoluene	89%		51-130%	

(a) Sample was not preserved to a pH < 2.

ND = Not detected
 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:	11/18/11
Lab Sample ID:	T93164-6	Date Received:	11/19/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8021B		
Project:	Knight Property/CO		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TT002574.D	1	11/22/11	WV	n/a	n/a	GTT114
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	99%		58-125%
98-08-8	aaa-Trifluorotoluene	99%		73-139%

ND = Not detected
 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-6	Date Sampled:	11/18/11
Lab Sample ID:	T93164-6	Date Received:	11/19/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8015 M SW846 3510C		
Project:	Knight Property/CO		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CC223683.D	1	11/23/11	HD	11/21/11	OP21195	GCC1237
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	0.213	0.10	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	64%		25-112%	

ND = Not detected
 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: 11/18/11
Lab Sample ID: T93164-6	Date Received: 11/19/11
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: Knight Property/CO	

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium ^a	80800	1000	ug/l	1	11/23/11	11/23/11	AFL SW846 6010C ¹	SW846 3010A ²
Iron ^a	16700	300	ug/l	1	11/23/11	11/23/11	AFL SW846 6010C ¹	SW846 3010A ²
Magnesium ^a	51000	5000	ug/l	1	11/23/11	11/23/11	AFL SW846 6010C ¹	SW846 3010A ²
Manganese ^a	3250	15	ug/l	1	11/23/11	11/23/11	AFL SW846 6010C ¹	SW846 3010A ²
Potassium ^a	< 10000	10000	ug/l	1	11/23/11	11/23/11	AFL SW846 6010C ¹	SW846 3010A ²
Selenium ^a	< 10	10	ug/l	1	11/23/11	11/23/11	AFL SW846 6010C ¹	SW846 3010A ²
Sodium ^a	53700	10000	ug/l	1	11/23/11	11/23/11	AFL SW846 6010C ¹	SW846 3010A ²

(1) Instrument QC Batch: F:MA9398

(2) Prep QC Batch: F:MP21762

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-6
Lab Sample ID: T93164-6
Matrix: AQ - Ground Water
Project: Knight Property/CO

Date Sampled: 11/18/11
Date Received: 11/19/11
Percent Solids: n/a

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate	388	5.0	mg/l	1	11/23/11	RA	SM 4500 CO2 D
Alkalinity, Carbonate	< 5.0	5.0	mg/l	1	11/23/11	RA	SM18 2320B
Alkalinity, Total as CaCO3	390	5.0	mg/l	1	11/23/11	RA	SM 2320B
BOD, 5 Day	6.8	6.0	mg/l	1	11/20/11 08:58	OT	SM 5210B
Bromide	< 0.50	0.50	mg/l	1	11/19/11 15:09	ES	EPA 300/SW846 9056
Chemical Oxygen Demand	96.8	20	mg/l	1	11/30/11	SS	SM 5220D
Chloride	21.1	1.0	mg/l	2	11/20/11 18:12	ES	EPA 300/SW846 9056
Hydroxide Alkalinity	< 5.0	5.0	mg/l	1	11/23/11	RA	SM18 4500CO2D
Nitrogen, Nitrate	0.56	0.50	mg/l	1	11/19/11 15:09	ES	EPA 300/SW846 9056
Nitrogen, Nitrite	< 0.50	0.50	mg/l	1	11/19/11 15:09	ES	EPA 300/SW846 9056
Phosphorus, Total	0.46	0.010	mg/l	5	11/29/11 14:30	BG	EPA 365.2
Plate Count, Total ^a	2210000	1	cfu/ml	1	11/19/11 11:30	DP	SM21 9215B
Sulfate	45.1	2.5	mg/l	5	11/21/11 04:24	ES	EPA 300/SW846 9056
Total Organic Carbon	34.6	1.0	mg/l	1	11/22/11 22:54	MC	SM5310B/9060A
pH	7.20		su	1	11/20/11	OT	SM 4500H+ B/9040

(a) Sample received out of holding time.

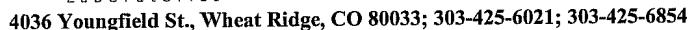
RL = Reporting Limit

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody



FED-EX Tracking #				Bottle Order Control #																																																											
Accurate Quote BS8/2010-41				Accurate Job #																																																											
<table border="1"> <thead> <tr> <th colspan="7">Requested Analyses</th> <th>Matrix Codes</th> </tr> </thead> <tbody> <tr> <td>GRO/DRO - (8015)</td> <td>BTEX - (8021B)</td> <td>PAH - (8270)</td> <td>TOC - (SW9060)</td> <td>BOD - (SM5210)</td> <td>COD - (SM5220D)</td> <td>Anions - (E300.0)*</td> <td> DW - Drinking Water GW - Ground Water WW - Wastewater SO - Soil SL - Sludge OL - Oil LIQ - Liquid SOL - Other Solid </td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Alkalinity Series - (SM2320)</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Total Metals - (SW846)**</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Heterotrophic Plate Count</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>pH - (SM4500)</td> <td></td> </tr> <tr> <td colspan="7">LAB USE ONLY</td> <td></td> </tr> </tbody> </table>								Requested Analyses							Matrix Codes	GRO/DRO - (8015)	BTEX - (8021B)	PAH - (8270)	TOC - (SW9060)	BOD - (SM5210)	COD - (SM5220D)	Anions - (E300.0)*	DW - Drinking Water GW - Ground Water WW - Wastewater SO - Soil SL - Sludge OL - Oil LIQ - Liquid SOL - Other Solid							Alkalinity Series - (SM2320)								Total Metals - (SW846)**								Heterotrophic Plate Count								pH - (SM4500)		LAB USE ONLY							
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Comments / Remarks																																																															
AMS FEDEX Account Number - 467721860																																																															
*Anions - NO2, NO3, PO4, SO4, Br, Cl **Metals - Ca, Fe, K, Mg, Mn, Na, Se																																																															
INCLUDING COURIER DELIVERY				Date Time: 11.18.11 Received By: 2 FedEx Date Time: Received By: 4																																																											
				On Ice Cooler Temp.																																																											

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Accutest Job Number: T93164 Client: OLSSON ASSOCIATES Project: 11:25
 Date / Time Received: 11/19/2011 Delivery Method: Airbill #'s: 512445098231,512445098242
 No. Coolers: 3 Therm ID: IRGUN4; Temp Adjustment Factor: -0.1;
 Cooler Temps (Initial/Adjusted): #1: (4/3.9); #2: (3.1/3); #3: (3.9/3.8);

Cooler Security Y or N Y or N
 1. Custody Seals Present: ☒ ☐ 3. COC Present: ☒ ☐
 2. Custody Seals Intact: ☒ ☐ 4. Smpl Dates/Time OK: ☒ ☐

Cooler Temperature Y or N
 1. Temp criteria achieved: ☒ ☐
 2. Cooler temp verification: IR Gun
 3. Cooler media: Ice (Bag)

Quality Control Preservation Y or N N/A WTB STB
 1. Trip Blank present / cooler: ☐ ☐ ☒ ☐ ☐
 2. Trip Blank listed on COC: ☐ ☐ ☒
 3. Samples preserved properly: ☒ ☐
 4. VOCs headspace free: ☐ ☒ ☐

Sample Integrity - Documentation Y or N
 1. Sample labels present on bottles: ☒ ☐
 2. Container labeling complete: ☒ ☐
 3. Sample container label / COC agree: ☒ ☐

Sample Integrity - Condition Y or N
 1. Sample recvd within HT: ☒ ☐
 2. All containers accounted for: ☒ ☐
 3. Condition of sample: Intact

Sample Integrity - Instructions Y or N N/A
 1. Analysis requested is clear: ☒ ☐
 2. Bottles received for unspecified tests: ☐ ☒
 3. Sufficient volume recvd for analysis: ☒ ☐
 4. Compositing instructions clear: ☐ ☐ ☒
 5. Filtering instructions clear: ☐ ☐ ☒

Comments

Job #: T93164

Date / Time Received: 11/19/2011 11:25:00 AM

Initials: BG

Client: OLSSON ASSOCIATES

Cooler #	Sample ID:	Vol	Bot #	Location	Pres	pH	Therm ID	Initial Temp	Therm CF	Corrected Temp
3	T93164-1	1000 ml	1	3N	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.9	-0.1	3.8
3	T93164-1	250 ml	2	3N	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.9	-0.1	3.8
3	T93164-1	125 ml	3	3N	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.9	-0.1	3.8
3	T93164-1	125 aml	4	3N	H2SO4	pH < 2	IRGUN4	3.9	-0.1	3.8
3	T93164-1	125 aml	5	3N	H2SO4	pH < 2	IRGUN4	3.9	-0.1	3.8
3	T93164-1	125 aml	6	3N	H2SO4	pH < 2	IRGUN4	3.9	-0.1	3.8
3	T93164-1	LAG	7	1G	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.9	-0.1	3.8
3	T93164-1	LAG	8	1G	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.9	-0.1	3.8
3	T93164-1	LAG	9	1G	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.9	-0.1	3.8
3	T93164-1	LAG	10	1G	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.9	-0.1	3.8
3	T93164-1	250 ml	11	M2	HNO3	pH < 2	IRGUN4	3.9	-0.1	3.8
3	T93164-1	40 ml	12	VR	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.9	-0.1	3.8
3	T93164-1	40 ml	13	VR	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.9	-0.1	3.8
3	T93164-1	40 ml	14	VR	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.9	-0.1	3.8
3	T93164-1	40 ml	15	VR	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.9	-0.1	3.8
3	T93164-1	40 ml	16	VR	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.9	-0.1	3.8
3	T93164-1	40 ml	17	VR	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.9	-0.1	3.8
3	T93164-1	Spec Cup	18	MICRO	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.9	-0.1	3.8
1	T93164-2	1000 ml	1	3N	N/P	Note #2 - Preservative check not applicable.	IRGUN4	4	-0.1	3.9
1	T93164-2	250 ml	2	3N	N/P	Note #2 - Preservative check not applicable.	IRGUN4	4	-0.1	3.9
1	T93164-2	125 ml	3	3N	N/P	Note #2 - Preservative check not applicable.	IRGUN4	4	-0.1	3.9
1	T93164-2	125 aml	4	3N	H2SO4	pH < 2	IRGUN4	4	-0.1	3.9
1	T93164-2	125 aml	5	3N	H2SO4	pH < 2	IRGUN4	4	-0.1	3.9

T93164: Chain of Custody

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Job #: T93164

Date / Time Received: 11/19/2011 11:25:00 AM

Initials: BG

Client: OLSSON ASSOCIATES

Cooler #	Sample ID:	Vol	Bot #	Location	Pres	pH	Therm ID	Initial Temp	Therm CF	Corrected Temp
1	T93164-2	125 aml	6	3N	H2SO4	pH < 2	IRGUN4	4	-0.1	3.9
1	T93164-2	LAG	7	1G	N/P	Note #2 - Preservative check not applicable.	IRGUN4	4	-0.1	3.9
1	T93164-2	LAG	8	1G	N/P	Note #2 - Preservative check not applicable.	IRGUN4	4	-0.1	3.9
1	T93164-2	LAG	9	1G	N/P	Note #2 - Preservative check not applicable.	IRGUN4	4	-0.1	3.9
1	T93164-2	LAG	10	1G	N/P	Note #2 - Preservative check not applicable.	IRGUN4	4	-0.1	3.9
1	T93164-2	250 ml	11	M2	HNO3	pH < 2	IRGUN4	4	-0.1	3.9
1	T93164-2	40 ml	12	VR	N/P	Note #2 - Preservative check not applicable.	IRGUN4	4	-0.1	3.9
1	T93164-2	40 ml	13	VR	N/P	Note #2 - Preservative check not applicable.	IRGUN4	4	-0.1	3.9
1	T93164-2	40 ml	14	VR	N/P	Note #2 - Preservative check not applicable.	IRGUN4	4	-0.1	3.9
1	T93164-2	40 ml	15	VR	N/P	Note #2 - Preservative check not applicable.	IRGUN4	4	-0.1	3.9
1	T93164-2	40 ml	16	VR	N/P	Note #2 - Preservative check not applicable.	IRGUN4	4	-0.1	3.9
1	T93164-2	40 ml	17	VR	N/P	Note #2 - Preservative check not applicable.	IRGUN4	4	-0.1	3.9
1	T93164-2	Spec Cup	18	MICRO	N/P	Note #2 - Preservative check not applicable.	IRGUN4	4	-0.1	3.9
1	T93164-3	1000 ml	1	3N	N/P	Note #2 - Preservative check not applicable.	IRGUN4	4	-0.1	3.9
1	T93164-3	250 ml	2	3N	N/P	Note #2 - Preservative check not applicable.	IRGUN4	4	-0.1	3.9
1	T93164-3	125 ml	3	3N	N/P	Note #2 - Preservative check not applicable.	IRGUN4	4	-0.1	3.9
1	T93164-3	125 aml	4	3N	H2SO4	pH < 2	IRGUN4	4	-0.1	3.9
1	T93164-3	125 aml	5	3N	H2SO4	pH < 2	IRGUN4	4	-0.1	3.9
1	T93164-3	125 aml	6	3N	H2SO4	pH < 2	IRGUN4	4	-0.1	3.9
1	T93164-3	LAG	7	1G	N/P	Note #2 - Preservative check not applicable.	IRGUN4	4	-0.1	3.9
1	T93164-3	LAG	8	1G	N/P	Note #2 - Preservative check not applicable.	IRGUN4	4	-0.1	3.9
1	T93164-3	LAG	9	1G	N/P	Note #2 - Preservative check not applicable.	IRGUN4	4	-0.1	3.9
1	T93164-3	LAG	10	1G	N/P	Note #2 - Preservative check not applicable.	IRGUN4	4	-0.1	3.9

T93164: Chain of Custody

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Sample Receipt Log

Job #: T93164

Date / Time Received: 11/19/2011 11:25:00 AM

Initials: BG

Client: OLSSON ASSOCIATES

Cooler #	Sample ID:	Vol	Bot #	Location	Pres	pH	Therm ID	Initial Temp	Therm CF	Corrected Temp
1	T93164-3	250 ml	11	M2	HNO3	pH < 2	IRGUN4	4	-0.1	3.9
1	T93164-3	40 ml	12	VR	N/P	Note #2 - Preservative check not applicable.	IRGUN4	4	-0.1	3.9
1	T93164-3	40 ml	13	VR	N/P	Note #2 - Preservative check not applicable.	IRGUN4	4	-0.1	3.9
1	T93164-3	40 ml	14	VR	N/P	Note #2 - Preservative check not applicable.	IRGUN4	4	-0.1	3.9
1	T93164-3	40 ml	15	VR	N/P	Note #2 - Preservative check not applicable.	IRGUN4	4	-0.1	3.9
1	T93164-3	40 ml	16	VR	N/P	Note #2 - Preservative check not applicable.	IRGUN4	4	-0.1	3.9
1	T93164-3	40 ml	17	VR	N/P	Note #2 - Preservative check not applicable.	IRGUN4	4	-0.1	3.9
1	T93164-3	Spec Cup	18	MICRO	N/P	Note #2 - Preservative check not applicable.	IRGUN4	4	-0.1	3.9
3	T93164-4	1000 ml	1	3N	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.9	-0.1	3.8
3	T93164-4	250 ml	2	3N	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.9	-0.1	3.8
3	T93164-4	125 ml	3	3N	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.9	-0.1	3.8
3	T93164-4	125 aml	4	3N	H2SO4	pH < 2	IRGUN4	3.9	-0.1	3.8
3	T93164-4	125 aml	5	3N	H2SO4	pH < 2	IRGUN4	3.9	-0.1	3.8
3	T93164-4	125 aml	6	3N	H2SO4	pH < 2	IRGUN4	3.9	-0.1	3.8
3	T93164-4	LAG	7	1G	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.9	-0.1	3.8
3	T93164-4	LAG	8	1G	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.9	-0.1	3.8
3	T93164-4	LAG	9	1G	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.9	-0.1	3.8
3	T93164-4	LAG	10	1G	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.9	-0.1	3.8
3	T93164-4	250 ml	11	M2	HNO3	pH < 2	IRGUN4	3.9	-0.1	3.8
3	T93164-4	40 ml	12	VR	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.9	-0.1	3.8
3	T93164-4	40 ml	13	VR	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.9	-0.1	3.8
3	T93164-4	40 ml	14	VR	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.9	-0.1	3.8
3	T93164-4	40 ml	15	VR	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.9	-0.1	3.8

T93164: Chain of Custody

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Sample Receipt Log

 Job #: T93164

 Date / Time Received: 11/19/2011 11:25:00 AM

 Initials: BG

 Client: OLSSON ASSOCIATES

Cooler #	Sample ID:	Vol	Bot #	Location	Pres	pH	Therm ID	Initial Temp	Therm CF	Corrected Temp
3	T93164-4	40 ml	16	VR	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.9	-0.1	3.8
3	T93164-4	40 ml	17	VR	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.9	-0.1	3.8
3	T93164-4	Spec Cup	18	MICRO	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.9	-0.1	3.8
2	T93164-5	1000 ml	1	3N	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.1	-0.1	3
2	T93164-5	250 ml	2	3N	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.1	-0.1	3
2	T93164-5	125 ml	3	3N	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.1	-0.1	3
2	T93164-5	125 aml	4	3N	H2SO4	pH < 2	IRGUN4	3.1	-0.1	3
2	T93164-5	125 aml	5	3N	H2SO4	pH < 2	IRGUN4	3.1	-0.1	3
2	T93164-5	125 aml	6	3N	H2SO4	pH < 2	IRGUN4	3.1	-0.1	3
2	T93164-5	LAG	7	1G	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.1	-0.1	3
2	T93164-5	LAG	8	1G	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.1	-0.1	3
2	T93164-5	LAG	9	1G	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.1	-0.1	3
2	T93164-5	LAG	10	1G	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.1	-0.1	3
2	T93164-5	250 ml	11	M2	HNO3	pH < 2	IRGUN4	3.1	-0.1	3
2	T93164-5	40 ml	12	VR	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.1	-0.1	3
2	T93164-5	40 ml	13	VR	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.1	-0.1	3
2	T93164-5	40 ml	14	VR	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.1	-0.1	3
2	T93164-5	40 ml	15	VR	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.1	-0.1	3
2	T93164-5	40 ml	16	VR	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.1	-0.1	3
2	T93164-5	40 ml	17	VR	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.1	-0.1	3
2	T93164-5	Spec Cup	18	MICRO	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.1	-0.1	3
2	T93164-6	1000 ml	1	3N	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.1	-0.1	3
2	T93164-6	250 ml	2	3N	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.1	-0.1	3

T93164: Chain of Custody

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Job #: T93164

Date / Time Received: 11/19/2011 11:25:00 AM

Initials: BG

Client: OLSSON ASSOCIATES

Cooler #	Sample ID:	Vol	Bot #	Location	Pres	pH	Therm ID	Initial Temp	Therm CF	Corrected Temp
2	T93164-6	125 ml	3	3N	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.1	-0.1	3
2	T93164-6	125 aml	4	3N	H2SO4	pH < 2	IRGUN4	3.1	-0.1	3
2	T93164-6	125 aml	5	3N	H2SO4	pH < 2	IRGUN4	3.1	-0.1	3
2	T93164-6	125 aml	6	3N	H2SO4	pH < 2	IRGUN4	3.1	-0.1	3
2	T93164-6	LAG	7	1G	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.1	-0.1	3
2	T93164-6	LAG	8	1G	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.1	-0.1	3
2	T93164-6	LAG	9	1G	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.1	-0.1	3
2	T93164-6	LAG	10	1G	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.1	-0.1	3
2	T93164-6	250 ml	11	M2	HNO3	pH < 2	IRGUN4	3.1	-0.1	3
2	T93164-6	40 ml	12	VR	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.1	-0.1	3
2	T93164-6	40 ml	13	VR	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.1	-0.1	3
2	T93164-6	40 ml	14	VR	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.1	-0.1	3
2	T93164-6	40 ml	15	VR	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.1	-0.1	3
2	T93164-6	40 ml	16	VR	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.1	-0.1	3
2	T93164-6	40 ml	17	VR	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.1	-0.1	3
2	T93164-6	Spec Cup	18	MICRO	N/P	Note #2 - Preservative check not applicable.	IRGUN4	3.1	-0.1	3

T93164: Chain of Custody

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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

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Job Number: T93164
Account: CCSARCO Olsson Associates
Project: Knight Property/CO

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP21192-MB	V8109.D	1	11/21/11	GJ	11/21/11	OP21192	EV464

The QC reported here applies to the following samples:

Method: SW846 8270C BY SIM

T93164-1, T93164-2, T93164-3, T93164-4, T93164-5, T93164-6

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	0.20	ug/l	
208-96-8	Acenaphthylene	ND	0.20	ug/l	
120-12-7	Anthracene	ND	0.20	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.20	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.20	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.20	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.20	ug/l	
218-01-9	Chrysene	ND	0.20	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.20	ug/l	
206-44-0	Fluoranthene	ND	0.20	ug/l	
86-73-7	Fluorene	ND	0.20	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.20	ug/l	
90-12-0	1-Methylnaphthalene	ND	0.20	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.20	ug/l	
91-20-3	Naphthalene	ND	0.20	ug/l	
85-01-8	Phenanthrene	ND	0.20	ug/l	
129-00-0	Pyrene	ND	0.20	ug/l	

CAS No.	Surrogate Recoveries	Limits
4165-60-0	Nitrobenzene-d5	50% 17-131%
321-60-8	2-Fluorobiphenyl	50% 15-137%
1718-51-0	Terphenyl-d14	74% 10-160%

Blank Spike/Blank Spike Duplicate Summary

Page 1 of 1

Job Number: T93164
Account: CCSARCO Olsson Associates
Project: Knight Property/CO

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP21192-BS	V8110.D	1	11/21/11	GJ	11/21/11	OP21192	EV464
OP21192-BSD	V8111.D	1	11/21/11	GJ	11/21/11	OP21192	EV464

The QC reported here applies to the following samples:

Method: SW846 8270C BY SIM

T93164-1, T93164-2, T93164-3, T93164-4, T93164-5, T93164-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	5	3.5	70	3.6	72	3	10-125/30
208-96-8	Acenaphthylene	5	4.0	80	4.0	80	0	10-141/30
120-12-7	Anthracene	5	4.6	92	4.6	92	0	13-139/30
56-55-3	Benzo(a)anthracene	5	4.7	94	4.7	94	0	24-151/30
50-32-8	Benzo(a)pyrene	5	5.1	102	5.1	102	0	36-146/30
205-99-2	Benzo(b)fluoranthene	5	5.4	108	5.4	108	0	27-159/30
191-24-2	Benzo(g,h,i)perylene	5	5.5	110	5.5	110	0	21-156/30
207-08-9	Benzo(k)fluoranthene	5	5.4	108	5.4	108	0	26-157/30
218-01-9	Chrysene	5	4.8	96	4.8	96	0	26-146/30
53-70-3	Dibenzo(a,h)anthracene	5	5.8	116	5.8	116	0	23-161/30
206-44-0	Fluoranthene	5	5.1	102	5.2	104	2	20-140/30
86-73-7	Fluorene	5	4.0	80	4.1	82	2	16-126/30
193-39-5	Indeno(1,2,3-cd)pyrene	5	5.3	106	5.5	110	4	25-153/30
90-12-0	1-Methylnaphthalene	5	3.5	70	3.5	70	0	10-139/30
91-57-6	2-Methylnaphthalene	5	3.0	60	2.9	58	3	10-115/30
91-20-3	Naphthalene	5	3.3	66	3.2	64	3	11-111/30
85-01-8	Phenanthrene	5	4.4	88	4.4	88	0	23-135/30
129-00-0	Pyrene	5	4.3	86	4.3	86	0	27-138/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
4165-60-0	Nitrobenzene-d5	70%	71%	17-131%
321-60-8	2-Fluorobiphenyl	55%	56%	15-137%
1718-51-0	Terphenyl-d14	74%	73%	10-160%

GC Volatiles

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QC Data Summaries

Includes the following where applicable:

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

Method Blank Summary

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Job Number: T93164
Account: CCSARCO Olsson Associates
Project: Knight Property/CO

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GHH354-MB	HH0007225.D		11/22/11	LB	n/a	n/a	GHH354

The QC reported here applies to the following samples:

Method: SW846 8015

T93164-2, T93164-3, T93164-4, T93164-5, T93164-6

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

CAS No.	Surrogate Recoveries	Limits
460-00-4	4-Bromofluorobenzene	80%
98-08-8	aaa-Trifluorotoluene	89%

Method Blank Summary

Page 1 of 1

Job Number: T93164
Account: CCSARCO Olsson Associates
Project: Knight Property/CO

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GBB520-MB	BB0010476.DI		11/23/11	LB	n/a	n/a	GBB520

The QC reported here applies to the following samples:

Method: SW846 8015

T93164-1

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

CAS No.	Surrogate Recoveries	Limits
460-00-4	4-Bromofluorobenzene	79%
98-08-8	aaa-Trifluorotoluene	90%

Method Blank Summary

Page 1 of 1

Job Number: T93164
Account: CCSARCO Olsson Associates
Project: Knight Property/CO

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GTT114-MB	TT002561.D	1	11/22/11	WV	n/a	n/a	GTT114

The QC reported here applies to the following samples:

Method: SW846 8021B

T93164-1, T93164-3, T93164-4, T93164-5, T93164-6

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	

CAS No.	Surrogate Recoveries	Limits
460-00-4	4-Bromofluorobenzene	100% 58-125%
98-08-8	aaa-Trifluorotoluene	100% 73-139%

Method Blank Summary

Page 1 of 1

Job Number: T93164
Account: CCSARCO Olsson Associates
Project: Knight Property/CO

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GTT115-MB	TT002587.D	1	11/22/11	WV	n/a	n/a	GTT115

The QC reported here applies to the following samples:

Method: SW846 8021B

T93164-1

CAS No.	Compound	Result	RL	Units	Q
1330-20-7	Xylenes (total)	ND	3.0	ug/l	

CAS No.	Surrogate Recoveries	Limits
460-00-4	4-Bromofluorobenzene	99%
98-08-8	aaa-Trifluorotoluene	101%

Method Blank Summary

Page 1 of 1

Job Number: T93164
Account: CCSARCO Olsson Associates
Project: Knight Property/CO

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GAA154-MB	AA003466.D 1		11/24/11	WV	n/a	n/a	GAA154

The QC reported here applies to the following samples:

Method: SW846 8021B

T93164-2

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	

CAS No.	Surrogate Recoveries	Limits
460-00-4	4-Bromofluorobenzene	96% 58-125%
98-08-8	aaa-Trifluorotoluene	108% 73-139%

Blank Spike Summary

Page 1 of 1

Job Number: T93164
Account: CCSARCO Olsson Associates
Project: Knight Property/CO

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GHH354-BS	HH0007223.D		11/22/11	LB	n/a	n/a	GHH354

The QC reported here applies to the following samples:

Method: SW846 8015

T93164-2, T93164-3, T93164-4, T93164-5, T93164-6

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
	TPH-GRO (C6-C10)	0.4	0.439	110	81-113

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	4-Bromofluorobenzene	81%	42-123%
98-08-8	aaa-Trifluorotoluene	94%	51-130%

Blank Spike Summary

Page 1 of 1

Job Number: T93164
Account: CCSARCO Olsson Associates
Project: Knight Property/CO

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GBB520-BS	BB0010474.DI		11/23/11	LB	n/a	n/a	GBB520

The QC reported here applies to the following samples:

Method: SW846 8015

T93164-1

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
	TPH-GRO (C6-C10)	0.4	0.434	109	81-113

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	4-Bromofluorobenzene	82%	42-123%
98-08-8	aaa-Trifluorotoluene	95%	51-130%

Blank Spike Summary

Page 1 of 1

Job Number: T93164
Account: CCSARCO Olsson Associates
Project: Knight Property/CO

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GTT114-BS	TT002560.D	1	11/22/11	WV	n/a	n/a	GTT114

The QC reported here applies to the following samples:

Method: SW846 8021B

T93164-1, T93164-3, T93164-4, T93164-5, T93164-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	19.7	99	86-121
100-41-4	Ethylbenzene	20	19.8	99	81-116
108-88-3	Toluene	20	19.7	99	87-117
1330-20-7	Xylenes (total)	60	60.2	100	85-115

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	4-Bromofluorobenzene	103%	58-125%
98-08-8	aaa-Trifluorotoluene	101%	73-139%

Blank Spike Summary

Job Number: T93164
Account: CCSARCO Olsson Associates
Project: Knight Property/CO

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GTT115-BS	TT002586.D	1	11/22/11	WV	n/a	n/a	GTT115

The QC reported here applies to the following samples:

Method: SW846 8021B

T93164-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
1330-20-7	Xylenes (total)	60	60.2	100	85-115

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	4-Bromofluorobenzene	99%	58-125%
98-08-8	aaa-Trifluorotoluene	100%	73-139%

Blank Spike Summary

Page 1 of 1

Job Number: T93164
Account: CCSARCO Olsson Associates
Project: Knight Property/CO

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GAA154-BS	AA003465.D 1		11/24/11	WV	n/a	n/a	GAA154

The QC reported here applies to the following samples:

Method: SW846 8021B

T93164-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	19.5	98	86-121
100-41-4	Ethylbenzene	20	19.7	99	81-116
108-88-3	Toluene	20	19.3	97	87-117
1330-20-7	Xylenes (total)	60	58.6	98	85-115

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	4-Bromofluorobenzene	104%	58-125%
98-08-8	aaa-Trifluorotoluene	112%	73-139%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: T93164
Account: CCSARCO Olsson Associates
Project: Knight Property/CO

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T93164-4MS	HH0007230.D		11/22/11	LB	n/a	n/a	GHH354
T93164-4MSD	HH0007231.D		11/22/11	LB	n/a	n/a	GHH354
T93164-4 ^a	HH0007229.D		11/22/11	LB	n/a	n/a	GHH354

The QC reported here applies to the following samples:

Method: SW846 8015

T93164-2, T93164-3, T93164-4, T93164-5, T93164-6

CAS No.	Compound	T93164-4 mg/l	Spike Q mg/l	MS mg/l	MS %	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	0.0196	0.4	0.483	116*	0.460	110	5	81-113/31

CAS No.	Surrogate Recoveries	MS	MSD	T93164-4	Limits
460-00-4	4-Bromofluorobenzene	80%	79%	80%	42-123%
98-08-8	aaa-Trifluorotoluene	96%	94%	88%	51-130%

(a) Sample was not preserved to a pH < 2.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T93164
Account: CCSARCO Olsson Associates
Project: Knight Property/CO

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T93167-4MS	BB0010493.DI		11/23/11	LB	n/a	n/a	GBB520
T93167-4MSD	BB0010494.DI		11/23/11	LB	n/a	n/a	GBB520
T93167-4	BB0010492.DI		11/23/11	LB	n/a	n/a	GBB520

The QC reported here applies to the following samples:

Method: SW846 8015

T93164-1

CAS No.	Compound	T93167-4 mg/l	Spike Q	mg/l	MS mg/l	MS %	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	0.762	0.4		1.19	107	1.19	107	0	81-113/31

CAS No.	Surrogate Recoveries	MS	MSD	T93167-4	Limits
460-00-4	4-Bromofluorobenzene	87%	89%	86%	42-123%
98-08-8	aaa-Trifluorotoluene	94%	97%	102%	51-130%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: T93164
Account: CCSARCO Olsson Associates
Project: Knight Property/CO

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T93164-3MS	TT002568.D	1	11/22/11	WV	n/a	n/a	GTT114
T93164-3MSD	TT002569.D	1	11/22/11	WV	n/a	n/a	GTT114
T93164-3	TT002567.D	1	11/22/11	WV	n/a	n/a	GTT114

The QC reported here applies to the following samples:

Method: SW846 8021B

T93164-1, T93164-3, T93164-4, T93164-5, T93164-6

CAS No.	Compound	T93164-3 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	20	19.5	98	19.2	96	2	86-121/19
100-41-4	Ethylbenzene	ND	20	20.1	101	19.8	99	2	81-116/14
108-88-3	Toluene	ND	20	19.8	99	19.5	98	2	87-117/16
1330-20-7	Xylenes (total)	ND	60	63.4	106	63.0	105	1	85-115/12

CAS No.	Surrogate Recoveries	MS	MSD	T93164-3	Limits
460-00-4	4-Bromofluorobenzene	101%	101%	100%	58-125%
98-08-8	aaa-Trifluorotoluene	99%	100%	100%	73-139%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T93164
Account: CCSARCO Olsson Associates
Project: Knight Property/CO

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T93164-1MS	TT002594.D	5	11/22/11	WV	n/a	n/a	GTT115
T93164-1MSD	TT002595.D	5	11/22/11	WV	n/a	n/a	GTT115
T93164-1	TT002593.D	5	11/22/11	WV	n/a	n/a	GTT115

The QC reported here applies to the following samples:

Method: SW846 8021B

T93164-1

CAS No.	Compound	T93164-1 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
1330-20-7	Xylenes (total)	477	300	792	105	776	100	2	85-115/12

CAS No.	Surrogate Recoveries	MS	MSD	T93164-1	Limits
460-00-4	4-Bromofluorobenzene	106%	105%	106%	58-125%
98-08-8	aaa-Trifluorotoluene	102%	102%	101%	73-139%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: T93164
Account: CCSARCO Olsson Associates
Project: Knight Property/CO

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T93163-7MS	AA003473.D	10	11/24/11	WV	n/a	n/a	GAA154
T93163-7MSD	AA003474.D	10	11/24/11	WV	n/a	n/a	GAA154
T93163-7 ^a	AA003472.D	10	11/24/11	WV	n/a	n/a	GAA154

The QC reported here applies to the following samples:

Method: SW846 8021B

T93164-2

CAS No.	Compound	T93163-7 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	1260		200	1410	75* ^b	1410	75* ^b	0	86-121/19
100-41-4	Ethylbenzene	233		200	420	94	416	92	1	81-116/14
108-88-3	Toluene	2400	E	200	2710	155* ^b	2710	155* ^b	0	87-117/16
1330-20-7	Xylenes (total)	3780		600	3890	18* ^b	3890	18* ^b	0	85-115/12

CAS No.	Surrogate Recoveries	MS	MSD	T93163-7	Limits
460-00-4	4-Bromofluorobenzene	169% * ^c	164% * ^c	166% * ^c	58-125%
98-08-8	aaa-Trifluorotoluene	108%	106%	106%	73-139%

(a) Confirmation run for surrogate recoveries.

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

(c) Outside control limits due to matrix interference. Confirmed by MS/MSD.

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: T93164
Account: CCSARCO Olsson Associates
Project: Knight Property/CO

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP21195-MB	CC223657.D 1		11/22/11	HD	11/21/11	OP21195	GCC1237

The QC reported here applies to the following samples:

Method: SW846 8015 M

T93164-1, T93164-2, T93164-3, T93164-4, T93164-5, T93164-6

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	ND	0.10	mg/l	

CAS No.	Surrogate Recoveries	Limits
84-15-1	o-Terphenyl	71% 25-112%

Blank Spike/Blank Spike Duplicate Summary

Page 1 of 1

Job Number: T93164
Account: CCSARCO Olsson Associates
Project: Knight Property/CO

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP21195-BS	CC223658.D	1	11/22/11	HD	11/21/11	OP21195	GCC1237
OP21195-BSD ^a	CC223659.D	1	11/22/11	HD	11/21/11	OP21195	GCC1237

The QC reported here applies to the following samples:

Method: SW846 8015 M

T93164-1, T93164-2, T93164-3, T93164-4, T93164-5, T93164-6

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	BSD mg/l	BSD %	RPD	Limits Rec/RPD
	TPH (C10-C28)	1	0.667	67	0.677	68	1	22-84/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
84-15-1	o-Terphenyl	86%	73%	25-112%

(a) No MS/MSD available due to insufficient sample.

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: T93164
Account: CCSARCO - Olsson Associates
Project: Knight Property/CO

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Alkalinity, Bicarbonate	GN37121	5.0	2.0	mg/l				
Alkalinity, Carbonate	GN37127	5.0	0.0	mg/l				
Alkalinity, Total as CaCO3	GN37113	5.0	2.0	mg/l	2500	2440	98.0	80-120%
BOD, 5 Day	GP16179/GN37029	2.0	0.0	mg/l	198	186	93.9	70-136%
Bromide	GP16170/GN37017	0.50	0.0	mg/l	10	9.91	99.1	90-110%
Chemical Oxygen Demand	GP16320/GN37266	20	0.0	mg/l	60	58.0	96.7	90-110%
Chloride	GP16175/GN37023	0.50	0.0	mg/l	10	9.75	97.5	90-110%
Fluoride	GP16175/GN37023	0.50	0.0	mg/l	10	9.80	98.0	90-110%
Hydroxide Alkalinity	GN37128	5.0	0.0	mg/l				
Nitrogen, Nitrate	GP16170/GN37017	0.50	0.0	mg/l	10	9.61	96.1	90-110%
Nitrogen, Nitrite	GP16170/GN37017	0.50	0.0	mg/l	10	9.98	99.8	90-110%
Phosphorus, Total	GP16309/GN37248	0.020	0.0080	mg/l	0.4	0.40	99.5	80-120%
Plate Count, Total	MB5496	1	<1	cfu/ml				
Sulfate	GP16175/GN37023	0.50	0.0	mg/l	10	10.0	100.0	90-110%
Total Organic Carbon	GP16195/GN37061	1.0	0.0	mg/l	25	24.7	98.8	80-120%

Associated Samples:

Batch GN37113: T93164-1, T93164-2, T93164-3, T93164-4, T93164-5, T93164-6
Batch GN37121: T93164-1, T93164-2, T93164-3, T93164-4, T93164-5, T93164-6
Batch GN37127: T93164-1, T93164-2, T93164-3, T93164-4, T93164-5, T93164-6
Batch GN37128: T93164-1, T93164-2, T93164-3, T93164-4, T93164-5, T93164-6
Batch GP16170: T93164-1, T93164-2, T93164-3, T93164-4, T93164-5, T93164-6
Batch GP16175: T93164-1, T93164-2, T93164-3, T93164-4, T93164-5, T93164-6
Batch GP16179: T93164-1, T93164-2, T93164-3, T93164-4, T93164-5, T93164-6
Batch GP16195: T93164-1, T93164-2, T93164-3, T93164-4, T93164-5, T93164-6
Batch GP16309: T93164-1, T93164-2, T93164-3, T93164-4, T93164-5, T93164-6
Batch GP16320: T93164-1, T93164-2, T93164-3, T93164-4, T93164-5, T93164-6
Batch MB5496: T93164-1, T93164-2, T93164-3, T93164-4, T93164-5, T93164-6
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: T93164
Account: CCSARCO - Olsson Associates
Project: Knight Property/CO

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Alkalinity, Bicarbonate	GN37121	T93164-1	mg/l	260	260	0.0(a)	0-20%
Alkalinity, Carbonate	GN37127	T93164-1	mg/l	3.5	3.1	11.3	0-20%
Alkalinity, Total as CaCO3	GN37113	T93076-2	mg/l	137	138	0.7	0-10%
BOD, 5 Day	GP16179/GN37029	T93036-2	mg/l	141	127	10.4	0-23%
Bromide	GP16170/GN37017	T93164-1	mg/l	0.44	0.0	200.0(b)	0-20%
Chemical Oxygen Demand	GP16320/GN37266	T93278-3	mg/l	59.8	59.8	0.0	0-20%
Chloride	GP16175/GN37023	T92951-1	mg/l	2290	1610	6.0	0-20%
Chloride	GP16175/GN37023	T92951-1	mg/l	1710	1610	6.0	0-20%
Chloride	GP16175/GN37023	T92951-1	mg/l	2340	1610	6.0	0-20%
Fluoride	GP16175/GN37023	T92951-1	mg/l	2.6	2.8	7.4	0-20%
Fluoride	GP16175/GN37023	T92951-1	mg/l	0.0	2.8	7.4	0-20%
Fluoride	GP16175/GN37023	T92951-1	mg/l	6.7	2.8	7.4	0-20%
Hydroxide Alkalinity	GN37128	T93164-1	mg/l	0.0	0.0		0-%
Nitrogen, Nitrate	GP16170/GN37017	T93164-1	mg/l	0.66	0.64	3.1	0-20%
Nitrogen, Nitrite	GP16170/GN37017	T93164-1	mg/l	0.36	0.0	200.0(b)	0-20%
Phosphorus, Total	GP16309/GN37248	T92604-1	mg/l	0.064	0.069	7.5	0-20%
Plate Count, Total	MB5496	T93164-1	cfu/ml	1590000	1560000	2.0	0-20%
Sulfate	GP16175/GN37023	T92951-1	mg/l	121	105	2.8	0-20%
Sulfate	GP16175/GN37023	T92951-1	mg/l	108	105	2.8	0-20%
Sulfate	GP16175/GN37023	T92951-1	mg/l	0.0	105	2.8	0-20%
Total Organic Carbon	GP16195/GN37061	T92621-1	mg/l	11.8	12.4	5.0	0-20%
pH	GN37027	T93164-4	su	7.18	7.18	0.0	0-6.8%

Associated Samples:

Batch GN37027: T93164-1, T93164-2, T93164-3, T93164-4, T93164-5, T93164-6
Batch GN37113: T93164-1, T93164-2, T93164-3, T93164-4, T93164-5, T93164-6
Batch GN37121: T93164-1, T93164-2, T93164-3, T93164-4, T93164-5, T93164-6
Batch GN37127: T93164-1, T93164-2, T93164-3, T93164-4, T93164-5, T93164-6
Batch GN37128: T93164-1, T93164-2, T93164-3, T93164-4, T93164-5, T93164-6
Batch GP16170: T93164-1, T93164-2, T93164-3, T93164-4, T93164-5, T93164-6
Batch GP16175: T93164-1, T93164-2, T93164-3, T93164-4, T93164-5, T93164-6
Batch GP16179: T93164-1, T93164-2, T93164-3, T93164-4, T93164-5, T93164-6
Batch GP16195: T93164-1, T93164-2, T93164-3, T93164-4, T93164-5, T93164-6
Batch GP16309: T93164-1, T93164-2, T93164-3, T93164-4, T93164-5, T93164-6
Batch GP16320: T93164-1, T93164-2, T93164-3, T93164-4, T93164-5, T93164-6
Batch MB5496: T93164-1, T93164-2, T93164-3, T93164-4, T93164-5, T93164-6

(*) Outside of QC limits

(a) RPD acceptable due to low duplicate and sample concentrations.

(b) RPD acceptable due to low duplicate and sample concentrations.

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: T93164
Account: CCSARCO - Olsson Associates
Project: Knight Property/CO

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Alkalinity, Total as CaCO ₃	GN37113	T93076-2	mg/l	137	25	161	96.0	79-122%
Bromide	GP16170/GN37017	T93164-1	mg/l	0.44	10	9.9	94.6	80-120%
Chemical Oxygen Demand	GP16320/GN37266	T93278-3	mg/l	59.8	60	118	97.0	90-110%
Chloride	GP16175/GN37023	T92951-1	mg/l	2290	5000	6560	97.0	80-120%
Chloride	GP16175/GN37023	T92951-1	mg/l	2340	5000	6560	97.0	80-120%
Chloride	GP16175/GN37023	T92951-1	mg/l	1710	5000	6560	97.0	80-120%
Fluoride	GP16175/GN37023	T92951-1	mg/l	2.6	10	7.2	46.0N	80-120%
Fluoride	GP16175/GN37023	T92951-1	mg/l	6.7	10	7.2	46.0N	80-120%
Fluoride	GP16175/GN37023	T92951-1	mg/l	0.0	10	7.2	46.0N	80-120%
Nitrogen, Nitrate	GP16170/GN37017	T93164-1	mg/l	0.66	10	9.8	91.4	80-120%
Nitrogen, Nitrite	GP16170/GN37017	T93164-1	mg/l	0.36	10	10.0	96.4	80-120%
Phosphorus, Total	GP16309/GN37248	T92604-1	mg/l	0.064	0.4	0.46	97.8	75-125%
Sulfate	GP16175/GN37023	T92951-1	mg/l	121	100	212	104.0	80-120%
Sulfate	GP16175/GN37023	T92951-1	mg/l	108	100	212	104.0	80-120%
Sulfate	GP16175/GN37023	T92951-1	mg/l	0.0	100	212	104.0	80-120%
Total Organic Carbon	GP16195/GN37061	T92621-1	mg/l	11.8	25	37.0	100.8	75-125%

Associated Samples:

Batch GN37113: T93164-1, T93164-2, T93164-3, T93164-4, T93164-5, T93164-6

Batch GP16170: T93164-1, T93164-2, T93164-3, T93164-4, T93164-5, T93164-6

Batch GP16175: T93164-1, T93164-2, T93164-3, T93164-4, T93164-5, T93164-6

Batch GP16195: T93164-1, T93164-2, T93164-3, T93164-4, T93164-5, T93164-6

Batch GP16309: T93164-1, T93164-2, T93164-3, T93164-4, T93164-5, T93164-6

Batch GP16320: T93164-1, T93164-2, T93164-3, T93164-4, T93164-5, T93164-6

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

7.3
7

Misc. Forms

Custody Documents and Other Forms

(Accutest Laboratories Southeast, Inc.)

Includes the following where applicable:

- Chain of Custody

SUBCONTRACT COC T 93164

10165 Harwin, Suite 150 - Houston, TX 77036 - 713-271-4700 fax: 713-271-4770

Requested Analyses	Matrix Codes
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[illegible]

Accutest Laboratories Southeast, Inc.

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: T93164 CLIENT: ALGC PROJECT: T93164
 DATE/TIME RECEIVED: 11-22-11 0930 (MM/DD/YY 24:00) NUMBER OF COOLERS RECEIVED: 1
 METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER
 AIRBILL NUMBERS: 7977 6247 3223

COOLER INFORMATION

- ☐ CUSTODY SEAL NOT PRESENT OR NOT INTACT
- ☐ CHAIN OF CUSTODY NOT RECEIVED (COC)
- ☐ ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- ☐ SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- ☐ TEMPERATURE CRITERIA NOT MET
- ☐ WET ICE PRESENT

TRIP BLANK INFORMATION

- ☐ TRIP BLANK PROVIDED
- ☒ TRIP BLANK NOT PROVIDED
- ☒ TRIP BLANK NOT ON COC
- ☐ TRIP BLANK INTACT
- ☐ TRIP BLANK NOT INTACT
- ☐ RECEIVED WATER TRIP BLANK
- ☐ RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES? 25-GRAM 5-GRAM
 NUMBER OF 5035 FIELD KITS?
 NUMBER OF LAB FILTERED METALS?

TEMPERATURE INFORMATION

- ☐ IR THERM ID 1 CORR. FACTOR +0.2
- ☐ OBSERVED TEMPS: 2.0
- ☐ CORRECTED TEMPS: 2.2

SAMPLE INFORMATION

- ☐ SAMPLE LABELS PRESENT ON ALL BOTTLES
- ☐ INCORRECT NUMBER OF CONTAINERS USED
- ☐ SAMPLE RECEIVED IMPROPERLY PRESERVED
- ☐ INSUFFICIENT VOLUME FOR ANALYSIS
- ☐ DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- ☐ ID'S ON COC DO NOT MATCH LABEL
- ☐ VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- ☐ BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- ☐ NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- ☐ UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- ☐ SAMPLE CONTAINER(S) RECEIVED BROKEN
- ☐ % SOLIDS JAR NOT RECEIVED
- ☐ 5035 FIELD KIT FROZEN WITHIN 48 HOUR'S
- ☐ RESIDUAL CHLORINE PRESENT

(APPLICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS)

SUMMARY OF COMMENTS:

TECHNICIAN SIGNATURE/DATE [Signature] 11-22-11 REVIEWER SIGNATURE/DATE [Signature] 11-22-11

NF 12/10

receipt confirmation 122910.xls

T93164: Chain of Custody

Page 2 of 2

Metals Analysis

QC Data Summaries

(Accutest Laboratories Southeast, Inc.)

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: T93164
Account: ALGC - Accutest Laboratories Gulf Coast, Inc.
Project: CCSARCO: Knight Property/CO

QC Batch ID: MP21762
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 11/23/11

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	24	25		
Antimony	6.0	1	2		
Arsenic	10	1	2		
Barium	200	4	5		
Beryllium	4.0	.1	1		
Cadmium	5.0	.1	1		
Calcium	1000	50	100	8.5	<1000
Chromium	10	1	1		
Cobalt	50	1	1		
Copper	25	1	2		
Iron	300	23	35	-14	<300
Lead	5.0	1	1		
Magnesium	5000	50	100	-11	<5000
Manganese	15	1	1	-0.10	<15
Molybdenum	50	1	2		
Nickel	40	1	2		
Potassium	10000	50	500	14.3	<10000
Selenium	10	2	2	0.30	<10
Silver	10	1	1		
Sodium	10000	850	1900	28.1	<10000
Strontium	10	1	1		
Thallium	10	1.5	1.9		
Tin	50	1	1		
Titanium	10	1	2		
Vanadium	50	1	1		
Zinc	20	1	5		

Associated samples MP21762: T93164-1, T93164-2, T93164-3, T93164-4, T93164-5, T93164-6

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: T93164
 Account: ALGC - Accutest Laboratories Gulf Coast, Inc.
 Project: CCSARCO: Knight Property/CO

QC Batch ID: MP21762
 Matrix Type: AQUEOUS

Methods: SW846 6010C
 Units: ug/l

Prep Date:

11/23/11

11/23/11

Metal	F88037-1 Original	DUP	RPD	QC Limits	F88037-1 Original	MS	Spikelot MPFLICP1	% Rec	QC Limits
Aluminum									
Antimony									
Arsenic	anr								
Barium									
Beryllium									
Cadmium									
Calcium	11700	11200	4.4	0-20	11700	36300	25000	98.4	80-120
Chromium									
Cobalt									
Copper									
Iron	75.6	76.1	0.7	0-20	75.6	25400	26000	97.4	80-120
Lead	anr								
Magnesium	522	513	1.7	0-20	522	24900	25000	97.5	80-120
Manganese	4.0	3.9	2.5	0-20	4.0	528	500	104.8	80-120
Molybdenum									
Nickel									
Potassium	9340	8940	4.4	0-20	9340	33700	25000	97.4	80-120
Selenium	0.0	0.0	NC	0-20	0.0	1990	2000	99.5	80-120
Silver									
Sodium	36700	35200	4.2	0-20	36700	62200	25000	102.0	80-120
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

Associated samples MP21762: T93164-1, T93164-2, T93164-3, T93164-4, T93164-5, T93164-6

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

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T93164
 Account: ALGC - Accutest Laboratories Gulf Coast, Inc.
 Project: CCSARCO: Knight Property/CO

QC Batch ID: MP21762
 Matrix Type: AQUEOUS

Methods: SW846 6010C
 Units: ug/l

Prep Date: 11/23/11

Metal	F88037-1 Original	MSD	Spikelot MPFLICP1	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	anr					
Barium						
Beryllium						
Cadmium						
Calcium	11700	35400	25000	94.8	2.5	20
Chromium						
Cobalt						
Copper						
Iron	75.6	24600	26000	94.3	3.2	20
Lead	anr					
Magnesium	522	24300	25000	95.1	2.4	20
Manganese	4.0	518	500	102.8	1.9	20
Molybdenum						
Nickel						
Potassium	9340	32900	25000	94.2	2.4	20
Selenium	0.0	1920	2000	96.0	3.6	20
Silver						
Sodium	36700	60300	25000	94.4	3.1	20
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

Associated samples MP21762: T93164-1, T93164-2, T93164-3, T93164-4, T93164-5, T93164-6

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

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: T93164

Account: ALGC - Accutest Laboratories Gulf Coast, Inc.

Project: CCSARCO: Knight Property/CO

QC Batch ID: MP21762

Methods: SW846 6010C

Matrix Type: AQUEOUS

Units: ug/l

Prep Date:

11/23/11

Metal	BSP Result	Spikelot MPFLICP1	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	anr			
Barium				
Beryllium				
Cadmium				
Calcium	24400	25000	97.6	80-120
Chromium				
Cobalt				
Copper				
Iron	25000	26000	96.2	80-120
Lead	anr			
Magnesium	23900	25000	95.6	80-120
Manganese	536	500	107.2	80-120
Molybdenum				
Nickel				
Potassium	24700	25000	98.8	80-120
Selenium	2000	2000	100.0	80-120
Silver				
Sodium	26300	25000	105.2	80-120
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP21762: T93164-1, T93164-2, T93164-3, T93164-4, T93164-5, T93164-6

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: T93164
 Account: ALGC - Accutest Laboratories Gulf Coast, Inc.
 Project: CCSARCO: Knight Property/CO

QC Batch ID: MP21762
 Matrix Type: AQUEOUS

Methods: SW846 6010C
 Units: ug/l

Prep Date: 11/23/11

Metal	F88037-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	anr			
Barium				
Beryllium				
Cadmium				
Calcium	11700	11100	4.6	0-10
Chromium				
Cobalt				
Copper				
Iron	75.6	0.00	100.0(a)	0-10
Lead	anr			
Magnesium	522	560	7.3	0-10
Manganese	4.00	0.00	100.0(a)	0-10
Molybdenum				
Nickel				
Potassium	9340	8600	8.0	0-10
Selenium	0.00	0.00	NC	0-10
Silver				
Sodium	36700	33500	8.7	0-10
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP21762: T93164-1, T93164-2, T93164-3, T93164-4, T93164-5, T93164-6

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

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



02/24/12

Technical Report for

Olsson Associates

Knight Property

11.1712.100.100001

Accutest Job Number: D31886

Sampling Date: 02/14/12

Report to:

Olsson Associates
826 21 1/2 Road
Grand Junction, CO 81505
tdobransky@oaconsulting.com

ATTN: Tim Dobransky

Total number of pages in report: **74**



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

A handwritten signature in black ink, appearing to read 'Brad Madadian'.

Brad Madadian
Laboratory Director

Client Service contact: 303-425-6021

Certifications: CO, ID, NE, NM, ND (R-027) (PW) UT (NELAP CO00049)

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Test results relate only to samples analyzed.

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Sample Summary

Olsson Associates

Job No: D31886

Knight Property

Project No: 11.1712.100.100001

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
D31886-1	02/14/12	12:50	TDJV	02/15/12	AQ	Ground Water	MW-1
D31886-1A	02/14/12	12:50	TDJV	02/15/12	AQ	Ground Water	MW-1
D31886-2	02/14/12	11:50	TDJV	02/15/12	AQ	Ground Water	MW-2A
D31886-2A	02/14/12	11:50	TDJV	02/15/12	AQ	Ground Water	MW-2A
D31886-3	02/14/12	11:40	TDJV	02/15/12	AQ	Ground Water	MW-3
D31886-3A	02/14/12	11:40	TDJV	02/15/12	AQ	Ground Water	MW-3
D31886-4	02/14/12	12:45	TDJV	02/15/12	AQ	Ground Water	MW-4
D31886-4A	02/14/12	12:45	TDJV	02/15/12	AQ	Ground Water	MW-4
D31886-5	02/14/12	10:50	TDJV	02/15/12	AQ	Ground Water	MW-5
D31886-5A	02/14/12	10:50	TDJV	02/15/12	AQ	Ground Water	MW-5
D31886-6	02/14/12	10:45	TDJV	02/15/12	AQ	Ground Water	MW-6
D31886-6A	02/14/12	10:45	TDJV	02/15/12	AQ	Ground Water	MW-6



Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW-1	Date Sampled:	02/14/12
Lab Sample ID:	D31886-1	Date Received:	02/15/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	Knight Property		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G106622.D	1	02/17/12	DC	02/17/12	OP5381	E1G617
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	0.60	ug/l	
208-96-8	Acenaphthylene	ND	4.7	0.60	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	
50-32-8	Benzo(a)pyrene	ND	4.7	0.47	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.7	0.47	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.7	0.54	ug/l	
207-08-9	Benzo(k)fluoranthene	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	0.78	ug/l	
206-44-0	Fluoranthene	ND	4.7	0.71	ug/l	
86-73-7	Fluorene	ND	4.7	0.55	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.7	1.5	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.7	0.68	ug/l	
91-57-6	2-Methylnaphthalene	0.83	4.7	0.68	ug/l	J
91-20-3	Naphthalene	1.2	4.7	0.73	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	57%		10-130%
321-60-8	2-Fluorobiphenyl	55%		10-130%
1718-51-0	Terphenyl-d14	50%		13-130%

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

Page 1 of 1

Client Sample ID:	MW-1	
Lab Sample ID:	D31886-1	Date Sampled: 02/14/12
Matrix:	AQ - Ground Water	Date Received: 02/15/12
Method:	SW846 8015B	Percent Solids: n/a
Project:	Knight Property	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA15190.D	1	02/15/12	SK	n/a	n/a	GGA857
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	1.56	0.20	0.10	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	108%		60-140%		

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

Page 1 of 1

Client Sample ID:	MW-1	Date Sampled:	02/14/12
Lab Sample ID:	D31886-1	Date Received:	02/15/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846-8015B SW846 3510C		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FH001370.D	1	02/17/12	TR	02/16/12	OP5378	GFH65
Run #2							

	Initial Volume	Final Volume
Run #1	1060 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	0.412	0.38	0.30	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	69%		25-146%

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: 02/14/12
Lab Sample ID: D31886-1	Date Received: 02/15/12
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: Knight Property	

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	88300	400	ug/l	1	02/16/12	02/17/12 JM	SW846 6010C ¹	SW846 3010A ³
Iron	5320	70	ug/l	1	02/16/12	02/20/12 JM	SW846 6010C ²	SW846 3010A ³
Magnesium	58600	200	ug/l	1	02/16/12	02/17/12 JM	SW846 6010C ¹	SW846 3010A ³
Manganese	418	5.0	ug/l	1	02/16/12	02/17/12 JM	SW846 6010C ¹	SW846 3010A ³
Potassium	3640	1000	ug/l	1	02/16/12	02/17/12 JM	SW846 6010C ¹	SW846 3010A ³
Selenium	< 50	50	ug/l	1	02/16/12	02/17/12 JM	SW846 6010C ¹	SW846 3010A ³
Sodium	63800	400	ug/l	1	02/16/12	02/20/12 JM	SW846 6010C ²	SW846 3010A ³

(1) Instrument QC Batch: MA2196

(2) Instrument QC Batch: MA2198

(3) Prep QC Batch: MP6863

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-1
Lab Sample ID: D31886-1
Matrix: AQ - Ground Water
Project: Knight Property

Date Sampled: 02/14/12
Date Received: 02/15/12
Percent Solids: n/a

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate as CaC	488	5.0	mg/l	1	02/20/12	JK	SM20 2320B
Alkalinity, Carbonate	< 5.0	5.0	mg/l	1	02/20/12	JK	SM20 2320B
Alkalinity, Total as CaCO ₃	488	5.0	mg/l	1	02/20/12	JK	SM20 2320B
BOD, 5 Day	10.9	10	mg/l	1	02/15/12 11:00	JD	SM20 5210B
Bromide	< 0.20	0.20	mg/l	1	02/15/12 11:13	GH	EPA 300/SW846 9056
Chemical Oxygen Demand	18.4	10	mg/l	1	02/22/12	JD	SM20 5220D
Chloride	11.5	0.50	mg/l	1	02/15/12 11:13	GH	EPA 300/SW846 9056
Nitrogen, Nitrate ^a	< 0.23	0.23	mg/l	5	02/15/12 14:48	GH	EPA 300/SW846 9056
Nitrogen, Nitrite	< 0.061	0.061	mg/l	1	02/15/12 11:13	GH	EPA 300/SW846 9056
Phosphate, Ortho	< 0.065	0.065	mg/l	1	02/15/12 11:13	GH	EPA 300/SW846 9056
Phosphorus, Total	0.59	0.010	mg/l	1	02/16/12	CJ	HACH8190/SM4500P-B/E
Sulfate	10.9	0.50	mg/l	1	02/15/12 11:13	GH	EPA 300/SW846 9056
Total Organic Carbon	8.8	1.0	mg/l	1	02/17/12 13:35	JML	SM20 5310B
pH	7.76		su	1	02/15/12 13:15	CT	SM20 4500H

(a) Elevated detection limit due to matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-1	
Lab Sample ID:	D31886-1A	Date Sampled: 02/14/12
Matrix:	AQ - Ground Water	Date Received: 02/15/12
Method:	SW846 8021B	Percent Solids: n/a
Project:	Knight Property	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA15190.D	1	02/15/12	SK	n/a	n/a	GTA857
Run #2							

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

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	1.2	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)	227	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	113%		60-140%

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:	02/14/12
Lab Sample ID:	D31886-2	Date Received:	02/15/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G106623.D	1	02/18/12	DC	02/17/12	OP5381	E1G617
Run #2							

	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	0.60	ug/l	
208-96-8	Acenaphthylene	ND	4.7	0.60	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	
50-32-8	Benzo(a)pyrene	ND	4.7	0.47	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.7	0.47	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.7	0.54	ug/l	
207-08-9	Benzo(k)fluoranthene	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	0.78	ug/l	
206-44-0	Fluoranthene	ND	4.7	0.71	ug/l	
86-73-7	Fluorene	ND	4.7	0.55	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.7	1.5	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.7	0.68	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.7	0.68	ug/l	
91-20-3	Naphthalene	ND	4.7	0.73	ug/l	
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	85%		10-130%
321-60-8	2-Fluorobiphenyl	81%		10-130%
1718-51-0	Terphenyl-d14	78%		13-130%

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

Page 1 of 1

Client Sample ID: MW-2A
Lab Sample ID: D31886-2
Matrix: AQ - Ground Water
Method: SW846 8015B
Project: Knight Property

Date Sampled: 02/14/12
Date Received: 02/15/12
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA15193.D	1	02/15/12	SK	n/a	n/a	GGA857
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	0.10	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	107%		60-140%		

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

Page 1 of 1

Client Sample ID:	MW-2A	Date Sampled:	02/14/12
Lab Sample ID:	D31886-2	Date Received:	02/15/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846-8015B SW846 3510C		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FH001372.D	1	02/17/12	TR	02/16/12	OP5378	GFH65
Run #2							

	Initial Volume	Final Volume
Run #1	1060 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	0.38	0.30	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	91%		25-146%		

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: 02/14/12
Lab Sample ID: D31886-2	Date Received: 02/15/12
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: Knight Property	

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	109000	400	ug/l	1	02/16/12	02/17/12 JM	SW846 6010C ¹	SW846 3010A ³
Iron	4770	70	ug/l	1	02/16/12	02/20/12 JM	SW846 6010C ²	SW846 3010A ³
Magnesium	55400	200	ug/l	1	02/16/12	02/17/12 JM	SW846 6010C ¹	SW846 3010A ³
Manganese	2030	5.0	ug/l	1	02/16/12	02/17/12 JM	SW846 6010C ¹	SW846 3010A ³
Potassium	3190	1000	ug/l	1	02/16/12	02/17/12 JM	SW846 6010C ¹	SW846 3010A ³
Selenium	< 50	50	ug/l	1	02/16/12	02/17/12 JM	SW846 6010C ¹	SW846 3010A ³
Sodium	59400	400	ug/l	1	02/16/12	02/20/12 JM	SW846 6010C ²	SW846 3010A ³

(1) Instrument QC Batch: MA2196

(2) Instrument QC Batch: MA2198

(3) Prep QC Batch: MP6863

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-2A
Lab Sample ID: D31886-2
Matrix: AQ - Ground Water
Project: Knight Property

Date Sampled: 02/14/12
Date Received: 02/15/12
Percent Solids: n/a

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate as CaC	440	5.0	mg/l	1	02/20/12	JK	SM20 2320B
Alkalinity, Carbonate	< 5.0	5.0	mg/l	1	02/20/12	JK	SM20 2320B
Alkalinity, Total as CaCO ₃	440	5.0	mg/l	1	02/20/12	JK	SM20 2320B
BOD, 5 Day	< 10	10	mg/l	1	02/15/12 11:00	JD	SM20 5210B
Bromide	< 0.20	0.20	mg/l	1	02/15/12 11:24	GH	EPA 300/SW846 9056
Chemical Oxygen Demand	20.4	10	mg/l	1	02/22/12	JD	SM20 5220D
Chloride	13.2	0.50	mg/l	1	02/15/12 11:24	GH	EPA 300/SW846 9056
Nitrogen, Nitrate ^a	< 0.23	0.23	mg/l	5	02/15/12 15:44	GH	EPA 300/SW846 9056
Nitrogen, Nitrite	< 0.061	0.061	mg/l	1	02/15/12 11:24	GH	EPA 300/SW846 9056
Phosphate, Ortho	< 0.065	0.065	mg/l	1	02/15/12 11:24	GH	EPA 300/SW846 9056
Phosphorus, Total	1.3	0.050	mg/l	5	02/16/12	CJ	HACH8190/SM4500P-B/E
Sulfate	44.2	2.5	mg/l	5	02/15/12 15:44	GH	EPA 300/SW846 9056
Total Organic Carbon	3.9	1.0	mg/l	1	02/17/12 13:47	JML	SM20 5310B
pH	7.58		su	1	02/15/12 13:15	CT	SM20 4500H

(a) Elevated detection limit due to matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-2A	Date Sampled:	02/14/12
Lab Sample ID:	D31886-2A	Date Received:	02/15/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8021B		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA15193.D	1	02/15/12	SK	n/a	n/a	GTA857
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	110%		60-140%

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:	02/14/12
Lab Sample ID:	D31886-3	Date Received:	02/15/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	Knight Property		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G106624.D	1	02/18/12	DC	02/17/12	OP5381	E1G617
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	0.60	ug/l	
208-96-8	Acenaphthylene	ND	4.7	0.60	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	
50-32-8	Benzo(a)pyrene	ND	4.7	0.47	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.7	0.47	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.7	0.54	ug/l	
207-08-9	Benzo(k)fluoranthene	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	0.78	ug/l	
206-44-0	Fluoranthene	ND	4.7	0.71	ug/l	
86-73-7	Fluorene	ND	4.7	0.55	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.7	1.5	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.7	0.68	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.7	0.68	ug/l	
91-20-3	Naphthalene	ND	4.7	0.73	ug/l	
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	95%		10-130%
321-60-8	2-Fluorobiphenyl	93%		10-130%
1718-51-0	Terphenyl-d14	86%		13-130%

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

Page 1 of 1

Client Sample ID:	MW-3	Date Sampled:	02/14/12
Lab Sample ID:	D31886-3	Date Received:	02/15/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8015B		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA15194.D	1	02/15/12	SK	n/a	n/a	GGA857
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	0.10	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	106%		60-140%		

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

Page 1 of 1

Client Sample ID:	MW-3	Date Sampled:	02/14/12
Lab Sample ID:	D31886-3	Date Received:	02/15/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846-8015B SW846 3510C		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FH001374.D	1	02/17/12	TR	02/16/12	OP5378	GFH65
Run #2							

	Initial Volume	Final Volume
Run #1	1060 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	0.38	0.30	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	84%		25-146%		

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: 02/14/12
Lab Sample ID: D31886-3	Date Received: 02/15/12
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: Knight Property	

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	151000	400	ug/l	1	02/16/12	02/17/12 JM	SW846 6010C ¹	SW846 3010A ³
Iron	6790	70	ug/l	1	02/16/12	02/20/12 JM	SW846 6010C ²	SW846 3010A ³
Magnesium	50300	200	ug/l	1	02/16/12	02/17/12 JM	SW846 6010C ¹	SW846 3010A ³
Manganese	1430	5.0	ug/l	1	02/16/12	02/17/12 JM	SW846 6010C ¹	SW846 3010A ³
Potassium	2950	1000	ug/l	1	02/16/12	02/17/12 JM	SW846 6010C ¹	SW846 3010A ³
Selenium	< 50	50	ug/l	1	02/16/12	02/17/12 JM	SW846 6010C ¹	SW846 3010A ³
Sodium	61400	400	ug/l	1	02/16/12	02/20/12 JM	SW846 6010C ²	SW846 3010A ³

(1) Instrument QC Batch: MA2196

(2) Instrument QC Batch: MA2198

(3) Prep QC Batch: MP6863

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-3	Date Sampled: 02/14/12
Lab Sample ID: D31886-3	Date Received: 02/15/12
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: Knight Property	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate as CaC	462	5.0	mg/l	1	02/20/12	JK	SM20 2320B
Alkalinity, Carbonate	< 5.0	5.0	mg/l	1	02/20/12	JK	SM20 2320B
Alkalinity, Total as CaCO ₃	462	5.0	mg/l	1	02/20/12	JK	SM20 2320B
BOD, 5 Day	< 10	10	mg/l	1	02/15/12 11:00	JD	SM20 5210B
Bromide	< 0.20	0.20	mg/l	1	02/15/12 11:35	GH	EPA 300/SW846 9056
Chemical Oxygen Demand	< 10	10	mg/l	1	02/22/12	JD	SM20 5220D
Chloride	14.5	0.50	mg/l	1	02/15/12 11:35	GH	EPA 300/SW846 9056
Nitrogen, Nitrate ^a	< 0.23	0.23	mg/l	5	02/15/12 16:17	GH	EPA 300/SW846 9056
Nitrogen, Nitrite	< 0.061	0.061	mg/l	1	02/15/12 11:35	GH	EPA 300/SW846 9056
Phosphate, Ortho	< 0.065	0.065	mg/l	1	02/15/12 11:35	GH	EPA 300/SW846 9056
Phosphorus, Total	1.7	0.050	mg/l	5	02/16/12	CJ	HACH8190/SM4500P-B/E
Sulfate	24.0	0.50	mg/l	1	02/15/12 11:35	GH	EPA 300/SW846 9056
Total Organic Carbon	4.3	1.0	mg/l	1	02/17/12 13:58	JML	SM20 5310B
pH	7.64		su	1	02/15/12 13:15	CT	SM20 4500H

(a) Elevated detection limit due to matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-3	Date Sampled:	02/14/12
Lab Sample ID:	D31886-3A	Date Received:	02/15/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8021B		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA15194.D	1	02/15/12	SK	n/a	n/a	GTA857
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	109%		60-140%

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:	02/14/12
Lab Sample ID:	D31886-4	Date Received:	02/15/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	Knight Property		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G106625.D	1	02/18/12	DC	02/17/12	OP5381	E1G617
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	0.60	ug/l	
208-96-8	Acenaphthylene	ND	4.7	0.60	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	
50-32-8	Benzo(a)pyrene	ND	4.7	0.47	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.7	0.47	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.7	0.54	ug/l	
207-08-9	Benzo(k)fluoranthene	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	0.78	ug/l	
206-44-0	Fluoranthene	ND	4.7	0.71	ug/l	
86-73-7	Fluorene	ND	4.7	0.55	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.7	1.5	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.7	0.68	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.7	0.68	ug/l	
91-20-3	Naphthalene	ND	4.7	0.73	ug/l	
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	89%		10-130%
321-60-8	2-Fluorobiphenyl	86%		10-130%
1718-51-0	Terphenyl-d14	81%		13-130%

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

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Client Sample ID:	MW-4	Date Sampled:	02/14/12
Lab Sample ID:	D31886-4	Date Received:	02/15/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8015B		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA15195.D	1	02/15/12	SK	n/a	n/a	GGA857
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	0.10	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	107%		60-140%		

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

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Client Sample ID:	MW-4	
Lab Sample ID:	D31886-4	Date Sampled: 02/14/12
Matrix:	AQ - Ground Water	Date Received: 02/15/12
Method:	SW846-8015B SW846 3510C	Percent Solids: n/a
Project:	Knight Property	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FH001376.D	1	02/17/12	TR	02/16/12	OP5378	GFH65
Run #2							

	Initial Volume	Final Volume
Run #1	1060 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	0.38	0.30	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	86%		25-146%		

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: 02/14/12
Lab Sample ID: D31886-4	Date Received: 02/15/12
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: Knight Property	

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	126000	400	ug/l	1	02/16/12	02/17/12 JM	SW846 6010C ¹	SW846 3010A ³
Iron	6710	70	ug/l	1	02/16/12	02/20/12 JM	SW846 6010C ²	SW846 3010A ³
Magnesium	48600	200	ug/l	1	02/16/12	02/17/12 JM	SW846 6010C ¹	SW846 3010A ³
Manganese	1710	5.0	ug/l	1	02/16/12	02/17/12 JM	SW846 6010C ¹	SW846 3010A ³
Potassium	2890	1000	ug/l	1	02/16/12	02/17/12 JM	SW846 6010C ¹	SW846 3010A ³
Selenium	< 50	50	ug/l	1	02/16/12	02/17/12 JM	SW846 6010C ¹	SW846 3010A ³
Sodium	58300	400	ug/l	1	02/16/12	02/20/12 JM	SW846 6010C ²	SW846 3010A ³

(1) Instrument QC Batch: MA2196

(2) Instrument QC Batch: MA2198

(3) Prep QC Batch: MP6863

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-4
Lab Sample ID: D31886-4
Matrix: AQ - Ground Water
Project: Knight Property

Date Sampled: 02/14/12
Date Received: 02/15/12
Percent Solids: n/a

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate as CaC	364	5.0	mg/l	1	02/20/12	JK	SM20 2320B
Alkalinity, Carbonate	< 5.0	5.0	mg/l	1	02/20/12	JK	SM20 2320B
Alkalinity, Total as CaCO ₃	364	5.0	mg/l	1	02/20/12	JK	SM20 2320B
BOD, 5 Day	< 10	10	mg/l	1	02/15/12 11:00	JD	SM20 5210B
Bromide	< 0.20	0.20	mg/l	1	02/15/12 11:47	GH	EPA 300/SW846 9056
Chemical Oxygen Demand	< 10	10	mg/l	1	02/22/12	JD	SM20 5220D
Chloride	6.9	0.50	mg/l	1	02/15/12 11:47	GH	EPA 300/SW846 9056
Nitrogen, Nitrate ^a	< 0.23	0.23	mg/l	5	02/15/12 16:29	GH	EPA 300/SW846 9056
Nitrogen, Nitrite	< 0.061	0.061	mg/l	1	02/15/12 11:47	GH	EPA 300/SW846 9056
Phosphate, Ortho	< 0.065	0.065	mg/l	1	02/15/12 11:47	GH	EPA 300/SW846 9056
Phosphorus, Total	1.4	0.050	mg/l	5	02/16/12	CJ	HACH8190/SM4500P-B/E
Sulfate	40.8	2.5	mg/l	5	02/15/12 16:29	GH	EPA 300/SW846 9056
Total Organic Carbon	3.6	1.0	mg/l	1	02/17/12 14:09	JML	SM20 5310B
pH	7.73		su	1	02/15/12 13:15	CT	SM20 4500H

(a) Elevated detection limit due to matrix interference.

RL = Reporting Limit

Report of Analysis

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Client Sample ID:	MW-4	Date Sampled:	02/14/12
Lab Sample ID:	D31886-4A	Date Received:	02/15/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8021B		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA15195.D	1	02/15/12	SK	n/a	n/a	GTA857
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	110%		60-140%

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:	02/14/12
Lab Sample ID:	D31886-5	Date Received:	02/15/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G106629.D	1	02/18/12	DC	02/17/12	OP5381	E1G618
Run #2							

	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	0.60	ug/l	
208-96-8	Acenaphthylene	ND	4.7	0.60	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	
50-32-8	Benzo(a)pyrene	ND	4.7	0.47	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.7	0.47	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.7	0.54	ug/l	
207-08-9	Benzo(k)fluoranthene	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	0.78	ug/l	
206-44-0	Fluoranthene	ND	4.7	0.71	ug/l	
86-73-7	Fluorene	ND	4.7	0.55	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.7	1.5	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.7	0.68	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.7	0.68	ug/l	
91-20-3	Naphthalene	ND	4.7	0.73	ug/l	
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	91%		10-130%
321-60-8	2-Fluorobiphenyl	89%		10-130%
1718-51-0	Terphenyl-d14	81%		13-130%

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

Page 1 of 1

Client Sample ID:	MW-5	Date Sampled:	02/14/12
Lab Sample ID:	D31886-5	Date Received:	02/15/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8015B		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA15196.D	1	02/15/12	SK	n/a	n/a	GGA857
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	0.10	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	106%		60-140%		

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

Page 1 of 1

Client Sample ID:	MW-5	Date Sampled:	02/14/12
Lab Sample ID:	D31886-5	Date Received:	02/15/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846-8015B SW846 3510C		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FH001378.D	1	02/17/12	TR	02/16/12	OP5378	GFH65
Run #2							

	Initial Volume	Final Volume
Run #1	1060 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	0.38	0.30	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	82%		25-146%		

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: 02/14/12
Lab Sample ID: D31886-5	Date Received: 02/15/12
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: Knight Property	

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	198000	400	ug/l	1	02/16/12	02/17/12 JM	SW846 6010C ¹	SW846 3010A ³
Iron	18200	70	ug/l	1	02/16/12	02/20/12 JM	SW846 6010C ²	SW846 3010A ³
Magnesium	62200	200	ug/l	1	02/16/12	02/17/12 JM	SW846 6010C ¹	SW846 3010A ³
Manganese	1560	5.0	ug/l	1	02/16/12	02/17/12 JM	SW846 6010C ¹	SW846 3010A ³
Potassium	3220	1000	ug/l	1	02/16/12	02/17/12 JM	SW846 6010C ¹	SW846 3010A ³
Selenium	< 50	50	ug/l	1	02/16/12	02/17/12 JM	SW846 6010C ¹	SW846 3010A ³
Sodium	56400	400	ug/l	1	02/16/12	02/20/12 JM	SW846 6010C ²	SW846 3010A ³

(1) Instrument QC Batch: MA2196

(2) Instrument QC Batch: MA2198

(3) Prep QC Batch: MP6863

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-5	Date Sampled: 02/14/12
Lab Sample ID: D31886-5	Date Received: 02/15/12
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: Knight Property	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate as CaC	540	5.0	mg/l	1	02/20/12	JK	SM20 2320B
Alkalinity, Carbonate	< 5.0	5.0	mg/l	1	02/20/12	JK	SM20 2320B
Alkalinity, Total as CaCO ₃	540	5.0	mg/l	1	02/20/12	JK	SM20 2320B
BOD, 5 Day	< 10	10	mg/l	1	02/15/12 11:00	JD	SM20 5210B
Bromide ^a	< 4.0	4.0	mg/l	20	02/16/12 17:09	GH	EPA 300/SW846 9056
Chemical Oxygen Demand	18.1	10	mg/l	1	02/22/12	JD	SM20 5220D
Chloride	19.7	0.50	mg/l	1	02/15/12 11:58	GH	EPA 300/SW846 9056
Nitrogen, Nitrate ^a	< 0.45	0.45	mg/l	10	02/16/12 10:04	GH	EPA 300/SW846 9056
Nitrogen, Nitrite	< 0.061	0.061	mg/l	1	02/15/12 11:58	GH	EPA 300/SW846 9056
Phosphate, Ortho	< 0.065	0.065	mg/l	1	02/15/12 11:58	GH	EPA 300/SW846 9056
Phosphorus, Total	2.0	0.10	mg/l	10	02/16/12	CJ	HACH8190/SM4500P-B/E
Sulfate	19.0	0.50	mg/l	1	02/15/12 11:58	GH	EPA 300/SW846 9056
Total Organic Carbon	10.9	1.0	mg/l	1	02/17/12 14:20	JML	SM20 5310B
pH	7.62		su	1	02/15/12 13:15	CT	SM20 4500H

(a) Elevated detection limit due to matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-5	Date Sampled:	02/14/12
Lab Sample ID:	D31886-5A	Date Received:	02/15/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8021B		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA15196.D	1	02/15/12	SK	n/a	n/a	GTA857
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	109%		60-140%

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:	02/14/12
Lab Sample ID:	D31886-6	Date Received:	02/15/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	Knight Property		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G106630.D	1	02/18/12	DC	02/17/12	OP5381	E1G618
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	0.60	ug/l	
208-96-8	Acenaphthylene	ND	4.7	0.60	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	
50-32-8	Benzo(a)pyrene	ND	4.7	0.47	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.7	0.47	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.7	0.54	ug/l	
207-08-9	Benzo(k)fluoranthene	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	0.78	ug/l	
206-44-0	Fluoranthene	ND	4.7	0.71	ug/l	
86-73-7	Fluorene	ND	4.7	0.55	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.7	1.5	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.7	0.68	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.7	0.68	ug/l	
91-20-3	Naphthalene	ND	4.7	0.73	ug/l	
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	79%		10-130%
321-60-8	2-Fluorobiphenyl	82%		10-130%
1718-51-0	Terphenyl-d14	77%		13-130%

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

Page 1 of 1

Client Sample ID:	MW-6	Date Sampled:	02/14/12
Lab Sample ID:	D31886-6	Date Received:	02/15/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8015B		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA15197.D	1	02/15/12	SK	n/a	n/a	GGA857
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	0.10	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	108%		60-140%		

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

Page 1 of 1

Client Sample ID:	MW-6	Date Sampled:	02/14/12
Lab Sample ID:	D31886-6	Date Received:	02/15/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846-8015B SW846 3510C		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FH001380.D	1	02/17/12	TR	02/16/12	OP5378	GFH65
Run #2							

	Initial Volume	Final Volume
Run #1	1060 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	0.38	0.30	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	72%		25-146%		

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: 02/14/12
Lab Sample ID: D31886-6	Date Received: 02/15/12
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: Knight Property	

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	72800	400	ug/l	1	02/16/12	02/17/12 JM	SW846 6010C ¹	SW846 3010A ³
Iron	4980	70	ug/l	1	02/16/12	02/20/12 JM	SW846 6010C ²	SW846 3010A ³
Magnesium	57900	200	ug/l	1	02/16/12	02/17/12 JM	SW846 6010C ¹	SW846 3010A ³
Manganese	1590	5.0	ug/l	1	02/16/12	02/17/12 JM	SW846 6010C ¹	SW846 3010A ³
Potassium	2170	1000	ug/l	1	02/16/12	02/17/12 JM	SW846 6010C ¹	SW846 3010A ³
Selenium	< 50	50	ug/l	1	02/16/12	02/17/12 JM	SW846 6010C ¹	SW846 3010A ³
Sodium	59000	400	ug/l	1	02/16/12	02/20/12 JM	SW846 6010C ²	SW846 3010A ³

(1) Instrument QC Batch: MA2196

(2) Instrument QC Batch: MA2198

(3) Prep QC Batch: MP6863

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-6	Date Sampled: 02/14/12
Lab Sample ID: D31886-6	Date Received: 02/15/12
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: Knight Property	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate as CaC	435	5.0	mg/l	1	02/20/12	JK	SM20 2320B
Alkalinity, Carbonate	< 5.0	5.0	mg/l	1	02/20/12	JK	SM20 2320B
Alkalinity, Total as CaCO ₃	435	5.0	mg/l	1	02/20/12	JK	SM20 2320B
BOD, 5 Day	< 10	10	mg/l	1	02/15/12 11:00	JD	SM20 5210B
Bromide ^a	< 4.0	4.0	mg/l	20	02/16/12 17:20	GH	EPA 300/SW846 9056
Chemical Oxygen Demand	35.3	10	mg/l	1	02/22/12	JD	SM20 5220D
Chloride	31.0	2.5	mg/l	5	02/15/12 16:51	GH	EPA 300/SW846 9056
Nitrogen, Nitrate ^a	< 0.45	0.45	mg/l	10	02/16/12 10:16	GH	EPA 300/SW846 9056
Nitrogen, Nitrite	< 0.061	0.061	mg/l	1	02/15/12 12:09	GH	EPA 300/SW846 9056
Phosphate, Ortho	< 0.065	0.065	mg/l	1	02/15/12 12:09	GH	EPA 300/SW846 9056
Phosphorus, Total	0.29	0.010	mg/l	1	02/16/12	CJ	HACH8190/SM4500P-B/E
Sulfate	21.7	0.50	mg/l	1	02/15/12 12:09	GH	EPA 300/SW846 9056
Total Organic Carbon	11.5	1.0	mg/l	1	02/17/12 14:31	JML	SM20 5310B
pH	7.59		su	1	02/15/12 13:15	CT	SM20 4500H

(a) Elevated detection limit due to matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-6	
Lab Sample ID:	D31886-6A	Date Sampled: 02/14/12
Matrix:	AQ - Ground Water	Date Received: 02/15/12
Method:	SW846 8021B	Percent Solids: n/a
Project:	Knight Property	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA15197.D	1	02/15/12	SK	n/a	n/a	GTA857
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	111%		60-140%

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

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D31886

Client: OLSSON

Immediate Client Services Action Required: No

Date / Time Received: 2/15/2012 10:20:00 AM

No. Coolers: 1

Client Service Action Required at Login: No

Project: KNIGHT

Airbill #'s: FEDEX

Cooler Security

Y or N

Y or N

- | | | | | | |
|---------------------------|-------------------------------------|--------------------------|-----------------------|-------------------------------------|--------------------------|
| 1. Custody Seals Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3. COC Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Custody Seals Intact: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. Smpl Dates/Time OK | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Cooler Temperature

Y or N

- | | | |
|------------------------------|-------------------------------------|--------------------------|
| 1. Temp criteria achieved: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Cooler temp verification: | Infrared gun | |
| 3. Cooler media: | Ice (bag) | |

Quality Control Preservation

Y or N

N/A

- | | | | |
|---------------------------------|-------------------------------------|--------------------------|-------------------------------------|
| 1. Trip Blank present / cooler: | <input type="checkbox"/> | <input type="checkbox"/> | |
| 2. Trip Blank listed on COC: | <input type="checkbox"/> | <input type="checkbox"/> | |
| 3. Samples preserved properly: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. VOCs headspace free: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Sample Integrity - Documentation

Y or N

- | | | |
|--|-------------------------------------|--------------------------|
| 1. Sample labels present on bottles: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Container labeling complete: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Sample container label / COC agree: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Sample Integrity - Condition

Y or N

- | | | |
|----------------------------------|-------------------------------------|--------------------------|
| 1. Sample recvd within HT: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. All containers accounted for: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Condition of sample: | Intact | |

Sample Integrity - Instructions

Y or N N/A

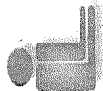
- | | | | |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Analysis requested is clear: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 2. Bottles received for unspecified tests | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |
| 3. Sufficient volume rec'd for analysis: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. Compositing instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 5. Filtering instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Comments

Accutest Laboratories
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F: (303) 425-6854

Wheat Ridge, CO
www.accutest.com



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

Wheat Ridge CO 80033

Attn: Renea Jackson

TEST REPORT

ACCUTEST - M

Date Received: 2/15/2012

Date Reported: 2/17/2012

PO Number: D31886X

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

Lab No.	Sample Description	Test Method	Result	Units	MDL	Analysis Date/By
120215012-01A	D31886X-1, 2/14/12, 12:50 pm	* Heterotrophic Plate Count SM 9215B	110000	CFU/mL		RJ 2/15/2012
120215012-02A	D31886X-2, 2/14/12, 11:50 am	* Heterotrophic Plate Count SM 9215B	6900	CFU/mL		RJ 2/15/2012
120215012-03A	D31886X-3, 2/14/12, 11:40 am	* Heterotrophic Plate Count SM 9215B	8500	CFU/mL		RJ 2/15/2012
120215012-04A	D31886X-4, 2/14/12, 12:45 pm	* Heterotrophic Plate Count SM 9215B	4600	CFU/mL		RJ 2/15/2012
120215012-05A	D31886X-5, 2/14/12, 10:50 am	* Heterotrophic Plate Count SM 9215B	3300	CFU/mL		RJ 2/15/2012
120215012-06A	D31886X-6, 2/14/12, 10:45 am	* Heterotrophic Plate Count SM 9215B	81000	CFU/mL		RJ 2/15/2012

* = Scope Analysis

= Subcontracted Analysis

MDL = Method Detection Limit

ND = Not Detected at the Method Detection Limit

Page: 1 of 1


Department Manager

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D31886: Chain of Custody

Page 4 of 4

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: D31886
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5381-MB	1G106611.D	1	02/17/12	DC	02/17/12	OP5381	E1G617

The QC reported here applies to the following samples:

Method: SW846 8270C

D31886-1, D31886-2, D31886-3, D31886-4, D31886-5, D31886-6

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.0	0.63	ug/l	
208-96-8	Acenaphthylene	ND	5.0	0.63	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	
50-32-8	Benzo(a)pyrene	ND	5.0	0.50	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	0.50	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	0.57	ug/l	
207-08-9	Benzo(k)fluoranthene	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	0.82	ug/l	
206-44-0	Fluoranthene	ND	5.0	0.75	ug/l	
86-73-7	Fluorene	ND	5.0	0.58	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	1.6	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	0.72	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	0.72	ug/l	
91-20-3	Naphthalene	ND	5.0	0.77	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
4165-60-0	Nitrobenzene-d5	77% 10-130%
321-60-8	2-Fluorobiphenyl	75% 10-130%
1718-51-0	Terphenyl-d14	109% 13-130%

Blank Spike Summary

Page 1 of 1

Job Number: D31886
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5381-BS	1G106612.D	1	02/17/12	DC	02/17/12	OP5381	E1G617

The QC reported here applies to the following samples:

Method: SW846 8270C

D31886-1, D31886-2, D31886-3, D31886-4, D31886-5, D31886-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	37.5	75	40-130
208-96-8	Acenaphthylene	50	38.2	76	41-130
120-12-7	Anthracene	50	40.9	82	45-130
56-55-3	Benzo(a)anthracene	50	37.5	75	43-136
50-32-8	Benzo(a)pyrene	50	40.3	81	40-132
205-99-2	Benzo(b)fluoranthene	50	38.5	77	38-147
191-24-2	Benzo(g,h,i)perylene	50	44.1	88	33-136
207-08-9	Benzo(k)fluoranthene	50	41.1	82	41-140
218-01-9	Chrysene	50	40.1	80	42-130
53-70-3	Dibenzo(a,h)anthracene	50	43.0	86	35-139
206-44-0	Fluoranthene	50	39.2	78	39-139
86-73-7	Fluorene	50	40.1	80	44-130
193-39-5	Indeno(1,2,3-cd)pyrene	50	35.2	70	29-140
90-12-0	1-Methylnaphthalene	50	37.2	74	31-130
91-57-6	2-Methylnaphthalene	50	34.6	69	32-130
91-20-3	Naphthalene	50	34.1	68	30-130
85-01-8	Phenanthrene	50	39.6	79	40-130
129-00-0	Pyrene	50	50.1	100	42-131

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	75%	10-130%
321-60-8	2-Fluorobiphenyl	74%	10-130%
1718-51-0	Terphenyl-d14	96%	13-130%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D31886
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5381-MS	1G106614.D	1	02/17/12	DC	02/17/12	OP5381	E1G617
OP5381-MSD	1G106615.D	1	02/17/12	DC	02/17/12	OP5381	E1G617
D31809-7	1G106613.D	1	02/17/12	DC	02/17/12	OP5381	E1G617

The QC reported here applies to the following samples:

Method: SW846 8270C

D31886-1, D31886-2, D31886-3, D31886-4, D31886-5, D31886-6

CAS No.	Compound	D31809-7 ug/l	Spike Q	ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND	50	33.6	67	35.2	70	5	10-174/30	
208-96-8	Acenaphthylene	ND	50	34.1	68	35.5	71	4	41-130/30	
120-12-7	Anthracene	ND	50	37.1	74	39.6	79	7	39-130/30	
56-55-3	Benzo(a)anthracene	ND	50	34.7	69	37.1	74	7	43-136/30	
50-32-8	Benzo(a)pyrene	ND	50	37.2	74	39.4	79	6	10-181/30	
205-99-2	Benzo(b)fluoranthene	ND	50	35.8	72	37.8	76	5	38-147/30	
191-24-2	Benzo(g,h,i)perylene	ND	50	41.2	82	43.8	88	6	33-136/30	
207-08-9	Benzo(k)fluoranthene	ND	50	35.5	71	39.7	79	11	41-140/30	
218-01-9	Chrysene	ND	50	37.3	75	39.3	79	5	41-130/30	
53-70-3	Dibenzo(a,h)anthracene	ND	50	40.2	80	44.1	88	9	35-139/30	
206-44-0	Fluoranthene	ND	50	34.3	69	38.0	76	10	39-139/30	
86-73-7	Fluorene	ND	50	35.4	71	38.7	77	9	15-162/30	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	50	31.9	64	36.5	73	13	10-188/30	
90-12-0	1-Methylnaphthalene	ND	50	31.5	63	34.5	69	9	31-130/30	
91-57-6	2-Methylnaphthalene	ND	50	29.1	58	31.9	64	9	24-132/30	
91-20-3	Naphthalene	ND	50	29.2	58	31.5	63	8	25-130/30	
85-01-8	Phenanthrene	ND	50	36.8	74	39.2	78	6	33-135/30	
129-00-0	Pyrene	ND	50	43.6	87	51.3	103	16	30-143/30	

CAS No.	Surrogate Recoveries	MS	MSD	D31809-7	Limits
4165-60-0	Nitrobenzene-d5	61%	67%	72%	10-130%
321-60-8	2-Fluorobiphenyl	66%	67%	71%	10-130%
1718-51-0	Terphenyl-d14	83%	97%	85%	13-130%

GC Volatiles

5

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: D31886
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGA857-MB	GA15188.D	1	02/15/12	SK	n/a	n/a	GGA857

The QC reported here applies to the following samples:

Method: SW846 8015B

D31886-1, D31886-2, D31886-3, D31886-4, D31886-5, D31886-6

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	0.20	0.10	mg/l	

CAS No.	Surrogate Recoveries	Limits
120-82-1	1,2,4-Trichlorobenzene	108% 60-140%

Method Blank Summary

Page 1 of 1

Job Number: D31886
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GTA857-MB	TA15188.D	1	02/15/12	SK	n/a	n/a	GTA857

The QC reported here applies to the following samples:

Method: SW846 8021B

D31886-1A, D31886-2A, D31886-3A, D31886-4A, D31886-5A, D31886-6A

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	110% 60-140%

Blank Spike Summary

Page 1 of 1

Job Number: D31886
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGA857-BS	GA15189.D	1	02/15/12	SK	n/a	n/a	GGA857

The QC reported here applies to the following samples:

Method: SW846 8015B

D31886-1, D31886-2, D31886-3, D31886-4, D31886-5, D31886-6

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
	TPH-GRO (C6-C10)	2.2	2.38	108	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	113%	60-140%

Blank Spike Summary

Page 1 of 1

Job Number: D31886
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GTA857-BS	TA15189.D	1	02/15/12	SK	n/a	n/a	GTA857

The QC reported here applies to the following samples:

Method: SW846 8021B

D31886-1A, D31886-2A, D31886-3A, D31886-4A, D31886-5A, D31886-6A

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	27.2	27.7	102	70-130
100-41-4	Ethylbenzene	45.6	46.4	102	70-130
108-88-3	Toluene	212	205	97	70-130
1330-20-7	Xylenes (total)	216	224	104	68-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	116%	60-140%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D31886
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D31886-1MS	GA15191.D	5	02/15/12	SK	n/a	n/a	GGA857
D31886-1MSD	GA15192.D	5	02/15/12	SK	n/a	n/a	GGA857
D31886-1	GA15190.D	1	02/15/12	SK	n/a	n/a	GGA857

The QC reported here applies to the following samples:

Method: SW846 8015B

D31886-1, D31886-2, D31886-3, D31886-4, D31886-5, D31886-6

CAS No.	Compound	D31886-1 mg/l	Spike Q	MS mg/l	MS %	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	1.56	11	11.3	89	10.6	82	6	61-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D31886-1	Limits
120-82-1	1,2,4-Trichlorobenzene	111%	112%	108%	60-140%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D31886
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D31886-1AMS	TA15191.D	5	02/15/12	SK	n/a	n/a	GTA857
D31886-1AMSD	TA15192.D	5	02/15/12	SK	n/a	n/a	GTA857
D31886-1A	TA15190.D	1	02/15/12	SK	n/a	n/a	GTA857

The QC reported here applies to the following samples:

Method: SW846 8021B

D31886-1A, D31886-2A, D31886-3A, D31886-4A, D31886-5A, D31886-6A

CAS No.	Compound	D31886-1A ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	1.2	136	129	94	123	90	5	67-130/30
100-41-4	Ethylbenzene	ND	228	145	64	117	51* a	21	62-130/30
108-88-3	Toluene	ND	1060	889	84	829	78	7	66-130/30
1330-20-7	Xylenes (total)	227	1080	1080	79	986	70	9	61-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D31886-1A	Limits
120-82-1	1,2,4-Trichlorobenzene	115%	117%	113%	60-140%

(a) Outside control limits due to possible matrix interference.

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: D31886
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5378-MB	FH001360.D	1	02/17/12	TR	02/16/12	OP5378	GFH65

The QC reported here applies to the following samples:

Method: SW846-8015B

D31886-1, D31886-2, D31886-3, D31886-4, D31886-5, D31886-6

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	0.40	0.32	mg/l	

CAS No.	Surrogate Recoveries	Limits
84-15-1	o-Terphenyl	70% 25-146%

Blank Spike Summary

Page 1 of 1

Job Number: D31886
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5378-BS	FH001362.D	1	02/17/12	TR	02/16/12	OP5378	GFH65

The QC reported here applies to the following samples:

Method: SW846-8015B

D31886-1, D31886-2, D31886-3, D31886-4, D31886-5, D31886-6

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
	TPH-DRO (C10-C28)	20	15.3	77	49-130

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	85%	25-146%

6.2.1

6

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D31886
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5378-MS	FH001364.D	1	02/17/12	TR	02/16/12	OP5378	GFH65
OP5378-MSD	FH001366.D	1	02/17/12	TR	02/16/12	OP5378	GFH65
D31809-6	FH001368.D	1	02/17/12	TR	02/16/12	OP5378	GFH65

The QC reported here applies to the following samples:

Method: SW846-8015B

D31886-1, D31886-2, D31886-3, D31886-4, D31886-5, D31886-6

CAS No.	Compound	D31809-6 mg/l	Spike Q	MS mg/l	MS %	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH-DRO (C10-C28)	ND	20	12.8	64	13.9	70	8	47-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D31809-6	Limits
84-15-1	o-Terphenyl	80%	81%	64%	25-146%

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: D31886
Account: CORCCOGJ - Olsson Associates
Project: Knight Property

QC Batch ID: MP6863
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 02/16/12

Metal	RL	IDL	MDL	MB raw	final
Aluminum	100	5.9	5.9		
Antimony	30	3.1	3.1		
Arsenic	25	5.9	5.9		
Barium	10	1.1	1.1		
Beryllium	10	.44	.5		
Boron	50	4.8	4.8		
Cadmium	10	.27	.27		
Calcium	400	9.6	15	19.0	<400
Chromium	10	.18	.79		
Cobalt	5.0	.35	.35		
Copper	10	.85	2.8		
Iron	70	3.4	13	5.2	<70
Lead	50	1.6	2.1		
Lithium	2.0	.28	1.2		
Magnesium	200	5.8	10	13.2	<200
Manganese	5.0	.053	.31	1.1	<5.0
Molybdenum	10	.45	.87		
Nickel	30	.43	1		
Phosphorus	100	11	20		
Potassium	1000	55	55	40.4	<1000
Selenium	50	3.8	3.8	2.4	<50
Silicon	50	3.8	3.8		
Silver	30	.18	.31		
Sodium	400	110	110	118	<400
Strontium	5.0		.25		
Thallium	10	2.9	2.9		
Tin	50	5.5	9.9		
Titanium	10	.11	.31		
Uranium	50	1.5	3.5		
Vanadium	10	.16	.22		
Zinc	30	.28	1.8		

Associated samples MP6863: D31886-1, D31886-2, D31886-3, D31886-4, D31886-5, D31886-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D31886
Account: CORCCOGJ - Olsson Associates
Project: Knight Property

QC Batch ID: MP6863
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

(anr) Analyte not requested

7.1.1

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MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D31886
Account: CORCCOGJ - Olsson Associates
Project: Knight Property

QC Batch ID: MP6863
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 02/16/12

Metal	D31886-1 Original MS	Spikelot MPICPAL % Rec	QC Limits
Aluminum			
Antimony			
Arsenic	anr		
Barium	anr		
Beryllium			
Boron			
Cadmium	anr		
Calcium	88300	112000	25000
Chromium	anr		
Cobalt			
Copper			
Iron	5320	10200	5000
Lead	anr		
Lithium			
Magnesium	58600	82800	25000
Manganese	418	890	500
Molybdenum			
Nickel			
Phosphorus			
Potassium	3640	29600	25000
Selenium	3.8	1050	1000
Silicon			
Silver	anr		
Sodium	63800	89300	25000
Strontium			
Thallium			
Tin			
Titanium			
Uranium			
Vanadium			
Zinc			

Associated samples MP6863: D31886-1, D31886-2, D31886-3, D31886-4, D31886-5, D31886-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D31886
Account: CORCCOGJ - Olsson Associates
Project: Knight Property

QC Batch ID: MP6863
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D31886
Account: CORCCOGJ - Olsson Associates
Project: Knight Property

QC Batch ID: MP6863
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 02/16/12

Metal	D31886-1 Original	MSD	Spikelot MPICPAL	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	anr					
Barium	anr					
Beryllium						
Boron						
Cadmium	anr					
Calcium	88300	117000	25000	114.8	4.4	20
Chromium	anr					
Cobalt						
Copper						
Iron	5320	10900	5000	111.6	6.6	20
Lead	anr					
Lithium						
Magnesium	58600	86700	25000	112.4	4.6	20
Manganese	418	925	500	101.4	3.9	20
Molybdenum						
Nickel						
Phosphorus						
Potassium	3640	30600	25000	107.8	3.3	20
Selenium	3.8	1070	1000	106.6	1.9	20
Silicon						
Silver	anr					
Sodium	63800	92900	25000	116.4	4.0	20
Strontium						
Thallium						
Tin						
Titanium						
Uranium						
Vanadium						
Zinc						

Associated samples MP6863: D31886-1, D31886-2, D31886-3, D31886-4, D31886-5, D31886-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D31886
Account: CORCCOGJ - Olsson Associates
Project: Knight Property

QC Batch ID: MP6863
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D31886
Account: CORCCOGJ - Olsson Associates
Project: Knight Property

QC Batch ID: MP6863
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 02/16/12

Metal	BSP Result	Spikelot MPICPALL	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	anr			
Barium	anr			
Beryllium				
Boron				
Cadmium	anr			
Calcium	26600	25000	106.4	80-120
Chromium	anr			
Cobalt				
Copper				
Iron	5160	5000	103.2	80-120
Lead	anr			
Lithium				
Magnesium	26200	25000	104.8	80-120
Manganese	492	500	98.4	80-120
Molybdenum				
Nickel				
Phosphorus				
Potassium	25800	25000	103.2	80-120
Selenium	1040	1000	104.0	80-120
Silicon				
Silver	anr			
Sodium	26700	25000	106.8	80-120
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc				

Associated samples MP6863: D31886-1, D31886-2, D31886-3, D31886-4, D31886-5, D31886-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D31886
Account: CORCCOGJ - Olsson Associates
Project: Knight Property

QC Batch ID: MP6863
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

(anr) Analyte not requested

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: D31886
Account: CORCCOGJ - Olsson Associates
Project: Knight Property

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Alkalinity, Bicarbonate as CaC	GN13757	5.0	0.0	mg/l	100	99.4	99.4	90-110%
Alkalinity, Carbonate	GN13758	5.0	0.0	mg/l	100	99.4	99.4	80-120%
Alkalinity, Total as CaCO3	GN13755	5.0	0.0	mg/l	100	99.4	99.4	90-110%
BOD, 5 Day	GP6521/GN13760	10	0.0	mg/l	198	199	100.5	85-115%
Bromide	GP6524/GN13708	0.20	0.0	mg/l	20	20.5	102.5	90-110%
Bromide	GP6533/GN13724	0.20	0.0	mg/l	20	20.3	101.5	90-110%
Chemical Oxygen Demand	GP6566/GN13800	10	0.0	mg/l	100	92.9	92.9	80-120%
Chloride	GP6524/GN13708	0.50	0.0	mg/l	20	19.6	98.0	90-110%
Chloride	GP6533/GN13724	0.50	0.0	mg/l	20	19.5	97.5	90-110%
Nitrogen, Nitrate	GP6524/GN13708	0.045	0.0	mg/l	4.52	4.13	91.4	90-110%
Nitrogen, Nitrate	GP6533/GN13724	0.045	0.0	mg/l	4.52	4.14	91.6	90-110%
Nitrogen, Nitrite	GP6524/GN13708	0.061	0.0	mg/l	6.09	6.16	101.1	90-110%
Nitrogen, Nitrite	GP6533/GN13724	0.010	0.0	mg/l	6.09	6.09	100.0	90-110%
Phosphate, Ortho	GP6524/GN13708	0.065	0.0	mg/l	9.78	10.3	105.3	90-110%
Phosphorus, Total	GP6525/GN13729	0.010	0.0	mg/l	0.543	0.55	100.5	80-120%
Sulfate	GP6524/GN13708	0.50	0.0	mg/l	30	29.2	97.3	90-110%
Sulfate	GP6533/GN13724	0.50	0.0	mg/l	30	29.1	97.0	90-110%
Total Organic Carbon	GP6540/GN13744	1.0	0.0	mg/l	7.2	7.37	102.4	90-110%
pH	GN13711			su	8.00	8.00	100.0	99.3-100.7%

Associated Samples:

Batch GN13711: D31886-1, D31886-2, D31886-3, D31886-4, D31886-5, D31886-6
Batch GN13755: D31886-1, D31886-2, D31886-3, D31886-4, D31886-5, D31886-6
Batch GN13757: D31886-1, D31886-2, D31886-3, D31886-4, D31886-5, D31886-6
Batch GN13758: D31886-1, D31886-2, D31886-3, D31886-4, D31886-5, D31886-6
Batch GP6521: D31886-1, D31886-2, D31886-3, D31886-4, D31886-5, D31886-6
Batch GP6524: D31886-1, D31886-2, D31886-3, D31886-4, D31886-5, D31886-6
Batch GP6525: D31886-1, D31886-2, D31886-3, D31886-4, D31886-5, D31886-6
Batch GP6533: D31886-5, D31886-6
Batch GP6540: D31886-1, D31886-2, D31886-3, D31886-4, D31886-5, D31886-6
Batch GP6566: D31886-1, D31886-2, D31886-3, D31886-4, D31886-5, D31886-6
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D31886
Account: CORCCOGJ - Olsson Associates
Project: Knight Property

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Alkalinity, Total as CaCO ₃	GN13755	D31853-1	mg/l	377	381	1.1	0-20%
BOD, 5 Day	GP6521/GN13760	D31824-1	mg/l	17.5	167	6.4	0-20%
Chemical Oxygen Demand	GP6566/GN13800	D31886-6	mg/l	35.3	31.6	10.9	0-20%
Phosphorus, Total	GP6525/GN13729	D31718-1	mg/l	0.0	0.0	0.0	0-20%
Total Organic Carbon	GP6540/GN13744	D31886-1	mg/l	8.8	8.8	0.0	0-20%

Associated Samples:

Batch GN13755: D31886-1, D31886-2, D31886-3, D31886-4, D31886-5, D31886-6
Batch GP6521: D31886-1, D31886-2, D31886-3, D31886-4, D31886-5, D31886-6
Batch GP6525: D31886-1, D31886-2, D31886-3, D31886-4, D31886-5, D31886-6
Batch GP6540: D31886-1, D31886-2, D31886-3, D31886-4, D31886-5, D31886-6
Batch GP6566: D31886-1, D31886-2, D31886-3, D31886-4, D31886-5, D31886-6
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D31886
Account: CORCCOGJ - Olsson Associates
Project: Knight Property

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Alkalinity, Total as CaCO ₃	GN13755	D31853-1	mg/l	377	100	462	84.7	80-120%
Bromide	GP6524/GN13708	D31886-2	mg/l	0.0	2.5	2.6	104.0	80-120%
Bromide	GP6533/GN13724	D31940-7	mg/l	0.0	2.5	2.5	100.0	80-120%
Chemical Oxygen Demand	GP6566/GN13800	D31886-6	mg/l	35.3	40	74.3	97.6	70-130%
Chloride	GP6524/GN13708	D31886-2	mg/l	13.2	10	23.2	100.0	80-120%
Chloride	GP6533/GN13724	D31940-7	mg/l	2.5	10	12.5	100.0	80-120%
Nitrogen, Nitrate	GP6524/GN13708	D31886-2	mg/l	0.0	2.83	2.5	88.5	80-120%
Nitrogen, Nitrate	GP6533/GN13724	D31940-7	mg/l	0.38	0.565	0.92	95.6	80-120%
Nitrogen, Nitrite	GP6524/GN13708	D31886-2	mg/l	0.0	0.305	0.30	98.5	80-120%
Nitrogen, Nitrite	GP6533/GN13724	D31940-7	mg/l	0.0	0.305	0.32	105.1	80-120%
Phosphate, Ortho	GP6524/GN13708	D31886-2	mg/l	0.0	0.815	0.85	104.3	80-120%
Phosphorus, Total	GP6525/GN13729	D31718-1	mg/l	0.0	0.4	0.42	105.1	80-120%
Sulfate	GP6524/GN13708	D31886-2	mg/l	44.2	50	93.8	99.2	80-120%
Sulfate	GP6533/GN13724	D31940-7	mg/l	8.7	10	18.7	100.0	80-120%
Total Organic Carbon	GP6540/GN13744	D31886-4	mg/l	3.6	10	13.8	102.0	80-120%

Associated Samples:

Batch GN13755: D31886-1, D31886-2, D31886-3, D31886-4, D31886-5, D31886-6

Batch GP6524: D31886-1, D31886-2, D31886-3, D31886-4, D31886-5, D31886-6

Batch GP6525: D31886-1, D31886-2, D31886-3, D31886-4, D31886-5, D31886-6

Batch GP6533: D31886-5, D31886-6

Batch GP6540: D31886-1, D31886-2, D31886-3, D31886-4, D31886-5, D31886-6

Batch GP6566: D31886-1, D31886-2, D31886-3, D31886-4, D31886-5, D31886-6

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D31886
Account: CORCCOGJ - Olsson Associates
Project: Knight Property

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Alkalinity, Total as CaCO3	GN13755	D31853-1	mg/l	377	100	461	0.2	20%
Bromide	GP6524/GN13708	D31886-2	mg/l	0.0	2.5	2.6	0.0	20%
Bromide	GP6533/GN13724	D31940-7	mg/l	0.0	2.5	2.6	3.9	20%
Chemical Oxygen Demand	GP6566/GN13800	D31886-6	mg/l	35.3	40	73.3	1.3	20%
Chloride	GP6524/GN13708	D31886-2	mg/l	13.2	10	23.2	0.0	20%
Chloride	GP6533/GN13724	D31940-7	mg/l	2.5	10	12.5	0.0	20%
Nitrogen, Nitrate	GP6524/GN13708	D31886-2	mg/l	0.0	2.83	2.5	0.0	20%
Nitrogen, Nitrate	GP6533/GN13724	D31940-7	mg/l	0.38	0.565	0.92	0.0	20%
Nitrogen, Nitrite	GP6524/GN13708	D31886-2	mg/l	0.0	0.305	0.30	0.0	20%
Nitrogen, Nitrite	GP6533/GN13724	D31940-7	mg/l	0.0	0.305	0.32	0.0	20%
Phosphate, Ortho	GP6524/GN13708	D31886-2	mg/l	0.0	0.815	0.87	2.3	20%
Phosphorus, Total	GP6525/GN13729	D31718-1	mg/l	0.0	0.4	0.390	7.4	20%
Sulfate	GP6524/GN13708	D31886-2	mg/l	44.2	50	93.8	0.0	20%
Sulfate	GP6533/GN13724	D31940-7	mg/l	8.7	10	18.7	0.0	20%
Total Organic Carbon	GP6540/GN13744	D31886-4	mg/l	3.6	10	13.9	0.7	20%

Associated Samples:

Batch GN13755: D31886-1, D31886-2, D31886-3, D31886-4, D31886-5, D31886-6

Batch GP6524: D31886-1, D31886-2, D31886-3, D31886-4, D31886-5, D31886-6

Batch GP6525: D31886-1, D31886-2, D31886-3, D31886-4, D31886-5, D31886-6

Batch GP6533: D31886-5, D31886-6

Batch GP6540: D31886-1, D31886-2, D31886-3, D31886-4, D31886-5, D31886-6

Batch GP6566: D31886-1, D31886-2, D31886-3, D31886-4, D31886-5, D31886-6

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

8.4

8

POST DIGESTATE SPIKE SUMMARY

Login Number: T93164
 Account: ALGC - Accutest Laboratories Gulf Coast, Inc.
 Project: CCSARCO: Knight Property/CO

QC Batch ID: MP21762
 Matrix Type: AQUEOUS

Methods: SW846 6010C
 Units: ug/l

Prep Date:

11/23/11

Metal	Sample ml	Final ml	F88037-1 Raw	PS Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony										
Arsenic										
Barium										
Beryllium										
Cadmium										
Calcium	9.8	10	11650	11417	16580	0.2	250	5000	103.3	80-120
Chromium										
Cobalt										
Copper										
Iron	9.8	10	75.6	74.088	3109	0.2	150	3000	101.2	80-120
Lead										
Magnesium	9.8	10	522.4	511.952	5516	0.2	250	5000	100.1	80-120
Manganese	9.8	10	4	3.92	55.4	0.2	2.5	50	103.0	80-120
Molybdenum										
Nickel										
Potassium	9.8	10	9342	9155.16	18980	0.2	500	10000	98.2	80-120
Selenium	9.8	10	0	0	100.5	0.2	5	100	100.5	80-120
Silver										
Sodium	9.8	10	36740	36005.2	46150	0.2	500	10000	101.4	80-120
Strontium										
Thallium										
Tin										
Titanium										
Vanadium										
Zinc										

Associated samples MP21762: T93164-1, T93164-2, T93164-3, T93164-4, T93164-5, T93164-6

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (**) Corr. sample result = Raw * (sample volume / final volume)
 (anr) Analyte not requested



05/22/12

Technical Report for

Olsson Associates

Knight Property

011-1712

Accutest Job Number: D34360

Sampling Date: 05/08/12

Report to:

Olsson Associates
826 21 1/2 Road
Grand Junction, CO 81505
tdobransky@oaconsulting.com

ATTN: Tim Dobransky

Total number of pages in report: **73**



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

A handwritten signature in black ink, appearing to read 'Brad Madadian'.

Brad Madadian
Laboratory Director

Client Service contact: Renea Jackson 303-425-6021

Certifications: CO, ID, NE, NM, ND (R-027) (PW), UT (NELAP CO00049), TX (T104704511-12-1)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.

Test results relate only to samples analyzed.

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Sample Summary

Olsson Associates

Job No: D34360

Knight Property
Project No: 011-1712

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
D34360-1	05/08/12	12:35 JV	05/09/12	AQ	Ground Water	MW-1
D34360-2	05/08/12	13:15 JV	05/09/12	AQ	Ground Water	MW-3
D34360-3	05/08/12	14:05 JV	05/09/12	AQ	Ground Water	MW-5
D34360-4	05/08/12	14:30 JV	05/09/12	AQ	Ground Water	MW-6
D34360-5	05/08/12	15:10 JV	05/09/12	AQ	Ground Water	MW-4



Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW-1	Date Sampled:	05/08/12
Lab Sample ID:	D34360-1	Date Received:	05/09/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	Knight Property		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G107740.D	1	05/14/12	DC	05/11/12	OP5870	E1G688
Run #2							

Run #	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	0.48	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	
50-32-8	Benzo(a)pyrene	ND	4.8	0.48	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.48	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	0.48	ug/l	
207-08-9	Benzo(k)fluoranthene	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	0.48	ug/l	
90-12-0	1-Methylnaphthalene	1.1	4.8	0.48	ug/l	J
91-57-6	2-Methylnaphthalene	2.0	4.8	0.48	ug/l	J
91-20-3	Naphthalene	3.6	4.8	0.48	ug/l	J
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	52%		10-130%
321-60-8	2-Fluorobiphenyl	49%		10-130%
1718-51-0	Terphenyl-d14	30%		13-130%

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

Page 1 of 1

Client Sample ID:	MW-1	
Lab Sample ID:	D34360-1	Date Sampled: 05/08/12
Matrix:	AQ - Ground Water	Date Received: 05/09/12
Method:	SW846 8015B	Percent Solids: n/a
Project:	Knight Property	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA16056.D	1	05/10/12	SK	n/a	n/a	GGA910
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	5.62	0.20	0.10	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	102%		60-140%		

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	Date Sampled:	05/08/12
Lab Sample ID:	D34360-1	Date Received:	05/09/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8021B		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA16102.D	1	05/15/12	SK	n/a	n/a	GTA911
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)	26.7	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	112%		60-140%

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

Page 1 of 1

Client Sample ID:	MW-1	
Lab Sample ID:	D34360-1	Date Sampled: 05/08/12
Matrix:	AQ - Ground Water	Date Received: 05/09/12
Method:	SW846-8015B SW846 3510C	Percent Solids: n/a
Project:	Knight Property	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FH004218.D	1	05/15/12	AV	05/10/12	OP5862	GFH230
Run #2							

	Initial Volume	Final Volume
Run #1	1060 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	0.996	0.38	0.25	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	70%		25-146%		

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: 05/08/12
Lab Sample ID: D34360-1	Date Received: 05/09/12
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: Knight Property	

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	138000	400	ug/l	1	05/14/12	05/15/12 JB	SW846 6010C ¹	SW846 3010A ²
Iron	11600	70	ug/l	1	05/14/12	05/15/12 JB	SW846 6010C ¹	SW846 3010A ²
Magnesium	54700	200	ug/l	1	05/14/12	05/15/12 JB	SW846 6010C ¹	SW846 3010A ²
Manganese	653	5.0	ug/l	1	05/14/12	05/15/12 JB	SW846 6010C ¹	SW846 3010A ²
Potassium	4630	1000	ug/l	1	05/14/12	05/15/12 JB	SW846 6010C ¹	SW846 3010A ²
Selenium	< 50	50	ug/l	1	05/14/12	05/15/12 JB	SW846 6010C ¹	SW846 3010A ²
Sodium	64700	400	ug/l	1	05/14/12	05/15/12 JB	SW846 6010C ¹	SW846 3010A ²

(1) Instrument QC Batch: MA2419

(2) Prep QC Batch: MP7467

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-1	Date Sampled: 05/08/12
Lab Sample ID: D34360-1	Date Received: 05/09/12
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: Knight Property	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate as CaC	498	5.0	mg/l	1	05/14/12	CJ	SM20 2320B
Alkalinity, Carbonate	< 5.0	5.0	mg/l	1	05/14/12	CJ	SM20 2320B
Alkalinity, Total as CaCO ₃	497	5.0	mg/l	1	05/14/12	CJ	SM20 2320B
BOD, 5 Day	22.6	10	mg/l	1	05/09/12 11:00	CT	SM20 5210B
Bromide	1.3	1.0	mg/l	5	05/10/12 10:44	JML	EPA 300/SW846 9056
Chemical Oxygen Demand	62.3	10	mg/l	1	05/10/12	JD	SM20 5220D
Chloride	9.0	0.50	mg/l	1	05/09/12 12:50	JML	EPA 300/SW846 9056
Nitrogen, Nitrate ^a	< 0.23	0.23	mg/l	5	05/09/12 19:47	JML	EPA 300/SW846 9056
Nitrogen, Nitrite	0.010	0.010	mg/l	1	05/09/12 12:50	JML	EPA 300/SW846 9056
Phosphate, Ortho	< 0.065	0.065	mg/l	1	05/10/12 10:30	JML	EPA 300/SW846 9056
Phosphorus, Total	1.1	0.050	mg/l	5	05/18/12	CJ	HACH8190/SM4500P-B/E
Sulfate	5.7	0.50	mg/l	1	05/09/12 12:50	JML	EPA 300/SW846 9056
Total Organic Carbon	10.4	1.0	mg/l	1	05/10/12 19:05	NS	SM20 5310B
pH	7.67		su	1	05/10/12 13:30	JD	SM20 4500H

(a) Elevated detection limit due to matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-3	Date Sampled:	05/08/12
Lab Sample ID:	D34360-2	Date Received:	05/09/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G107741.D	1	05/14/12	DC	05/11/12	OP5870	E1G688
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	0.48	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	
50-32-8	Benzo(a)pyrene	ND	4.8	0.48	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.48	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	0.48	ug/l	
207-08-9	Benzo(k)fluoranthene	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	0.48	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	86%		10-130%
321-60-8	2-Fluorobiphenyl	84%		10-130%
1718-51-0	Terphenyl-d14	68%		13-130%

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:	05/08/12
Lab Sample ID:	D34360-2	Date Received:	05/09/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8015B		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA16058.D	1	05/10/12	SK	n/a	n/a	GGA910
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	0.10	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	94%		60-140%		

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:	05/08/12
Lab Sample ID:	D34360-2	Date Received:	05/09/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8021B		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA16058.D	1	05/10/12	SK	n/a	n/a	GTA910
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%

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

Page 1 of 1

Client Sample ID:	MW-3	Date Sampled:	05/08/12
Lab Sample ID:	D34360-2	Date Received:	05/09/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846-8015B SW846 3510C		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FH004220.D	1	05/15/12	AV	05/10/12	OP5862	GFH230
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	0.38	0.25	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	102%		25-146%		

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: 05/08/12
Lab Sample ID: D34360-2	Date Received: 05/09/12
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: Knight Property	

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	157000	400	ug/l	1	05/14/12	05/15/12 JB	SW846 6010C ¹	SW846 3010A ³
Iron	26800	70	ug/l	1	05/14/12	05/15/12 JB	SW846 6010C ¹	SW846 3010A ³
Magnesium	57800	200	ug/l	1	05/14/12	05/15/12 JB	SW846 6010C ¹	SW846 3010A ³
Manganese	1710	5.0	ug/l	1	05/14/12	05/15/12 JB	SW846 6010C ¹	SW846 3010A ³
Potassium	6880	1000	ug/l	1	05/14/12	05/15/12 JB	SW846 6010C ¹	SW846 3010A ³
Selenium	< 50	50	ug/l	1	05/14/12	05/15/12 JB	SW846 6010C ¹	SW846 3010A ³
Sodium	61000	400	ug/l	1	05/14/12	05/17/12 JB	SW846 6010C ²	SW846 3010A ³

(1) Instrument QC Batch: MA2419

(2) Instrument QC Batch: MA2429

(3) Prep QC Batch: MP7467

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-3	Date Sampled: 05/08/12
Lab Sample ID: D34360-2	Date Received: 05/09/12
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: Knight Property	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate as CaC	427	5.0	mg/l	1	05/14/12	CJ	SM20 2320B
Alkalinity, Carbonate	< 5.0	5.0	mg/l	1	05/14/12	CJ	SM20 2320B
Alkalinity, Total as CaCO ₃	427	5.0	mg/l	1	05/14/12	CJ	SM20 2320B
BOD, 5 Day	< 10	10	mg/l	1	05/09/12 11:00	CT	SM20 5210B
Bromide	< 0.20	0.20	mg/l	1	05/10/12 11:14	JML	EPA 300/SW846 9056
Chemical Oxygen Demand	< 10	10	mg/l	1	05/10/12	JD	SM20 5220D
Chloride	12.9	1.0	mg/l	2	05/09/12 14:05	JML	EPA 300/SW846 9056
Nitrogen, Nitrate ^a	< 0.090	0.090	mg/l	2	05/09/12 14:05	JML	EPA 300/SW846 9056
Nitrogen, Nitrite	< 0.010	0.010	mg/l	1	05/10/12 11:14	JML	EPA 300/SW846 9056
Phosphate, Ortho	< 0.065	0.065	mg/l	1	05/10/12 11:14	JML	EPA 300/SW846 9056
Phosphorus, Total	1.3	0.050	mg/l	5	05/18/12	CJ	HACH8190/SM4500P-B/E
Sulfate	34.7	1.0	mg/l	2	05/09/12 14:05	JML	EPA 300/SW846 9056
Total Organic Carbon	4.2	1.0	mg/l	1	05/10/12 19:16	NS	SM20 5310B
pH	7.60		su	1	05/10/12 13:30	JD	SM20 4500H

(a) Elevated detection limit due to matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-5	Date Sampled:	05/08/12
Lab Sample ID:	D34360-3	Date Received:	05/09/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	Knight Property		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G107742.D	1	05/14/12	DC	05/11/12	OP5870	E1G688
Run #2							

Run #	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	0.48	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	
50-32-8	Benzo(a)pyrene	ND	4.8	0.48	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.48	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	0.48	ug/l	
207-08-9	Benzo(k)fluoranthene	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	0.48	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	91%		10-130%
321-60-8	2-Fluorobiphenyl	89%		10-130%
1718-51-0	Terphenyl-d14	63%		13-130%

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

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Client Sample ID:	MW-5	Date Sampled:	05/08/12
Lab Sample ID:	D34360-3	Date Received:	05/09/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8015B		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA16060.D	1	05/10/12	SK	n/a	n/a	GGA910
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	0.10	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	94%		60-140%		

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:	05/08/12
Lab Sample ID:	D34360-3	Date Received:	05/09/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8021B		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA16060.D	1	05/10/12	SK	n/a	n/a	GTA910
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	105%		60-140%

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

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Client Sample ID:	MW-5	Date Sampled:	05/08/12
Lab Sample ID:	D34360-3	Date Received:	05/09/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846-8015B SW846 3510C		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FH004222.D	1	05/15/12	AV	05/10/12	OP5862	GFH230
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	0.38	0.25	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	98%		25-146%		

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: 05/08/12
Lab Sample ID: D34360-3	Date Received: 05/09/12
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: Knight Property	

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	157000	400	ug/l	1	05/14/12	05/15/12 JB	SW846 6010C ¹	SW846 3010A ³
Iron	33300	70	ug/l	1	05/14/12	05/15/12 JB	SW846 6010C ¹	SW846 3010A ³
Magnesium	60800	200	ug/l	1	05/14/12	05/15/12 JB	SW846 6010C ¹	SW846 3010A ³
Manganese	1330	5.0	ug/l	1	05/14/12	05/15/12 JB	SW846 6010C ¹	SW846 3010A ³
Potassium	6710	1000	ug/l	1	05/14/12	05/15/12 JB	SW846 6010C ¹	SW846 3010A ³
Selenium	< 50	50	ug/l	1	05/14/12	05/15/12 JB	SW846 6010C ¹	SW846 3010A ³
Sodium	58900	400	ug/l	1	05/14/12	05/17/12 JB	SW846 6010C ²	SW846 3010A ³

(1) Instrument QC Batch: MA2419

(2) Instrument QC Batch: MA2429

(3) Prep QC Batch: MP7467

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-5	Date Sampled: 05/08/12
Lab Sample ID: D34360-3	Date Received: 05/09/12
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: Knight Property	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate as CaC	481	5.0	mg/l	1	05/14/12	CJ	SM20 2320B
Alkalinity, Carbonate	< 5.0	5.0	mg/l	1	05/14/12	CJ	SM20 2320B
Alkalinity, Total as CaCO ₃	481	5.0	mg/l	1	05/14/12	CJ	SM20 2320B
BOD, 5 Day	< 10	10	mg/l	1	05/09/12 11:00	CT	SM20 5210B
Bromide ^a	< 0.40	0.40	mg/l	2	05/09/12 14:20	JML	EPA 300/SW846 9056
Chemical Oxygen Demand	< 10	10	mg/l	1	05/10/12	JD	SM20 5220D
Chloride	10.6	1.0	mg/l	2	05/09/12 14:20	JML	EPA 300/SW846 9056
Nitrogen, Nitrate ^a	< 0.090	0.090	mg/l	2	05/09/12 14:20	JML	EPA 300/SW846 9056
Nitrogen, Nitrite	< 0.010	0.010	mg/l	1	05/10/12 11:29	JML	EPA 300/SW846 9056
Phosphate, Ortho	< 0.065	0.065	mg/l	1	05/10/12 11:29	JML	EPA 300/SW846 9056
Phosphorus, Total	1.6	0.10	mg/l	10	05/18/12	CJ	HACH8190/SM4500P-B/E
Sulfate	27.8	1.0	mg/l	2	05/09/12 14:20	JML	EPA 300/SW846 9056
Total Organic Carbon	5.0	1.0	mg/l	1	05/14/12 18:33	JML	SM20 5310B
pH	7.65		su	1	05/10/12 13:30	JD	SM20 4500H

(a) Elevated detection limit due to matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-6	Date Sampled:	05/08/12
Lab Sample ID:	D34360-4	Date Received:	05/09/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	Knight Property		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G107738.D	1	05/14/12	DC	05/11/12	OP5870	E1G688
Run #2							

Run #	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	0.48	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	
50-32-8	Benzo(a)pyrene	ND	4.8	0.48	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.48	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	0.48	ug/l	
207-08-9	Benzo(k)fluoranthene	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	0.48	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	49%		10-130%
321-60-8	2-Fluorobiphenyl	48%		10-130%
1718-51-0	Terphenyl-d14	43%		13-130%

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

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Client Sample ID:	MW-6	Date Sampled:	05/08/12
Lab Sample ID:	D34360-4	Date Received:	05/09/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8015B		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA16061.D	1	05/10/12	SK	n/a	n/a	GGA910
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	0.10	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	95%		60-140%		

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:	05/08/12
Lab Sample ID:	D34360-4	Date Received:	05/09/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8021B		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA16061.D	1	05/10/12	SK	n/a	n/a	GTA910
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	106%		60-140%

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

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Client Sample ID:	MW-6	Date Sampled:	05/08/12
Lab Sample ID:	D34360-4	Date Received:	05/09/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846-8015B SW846 3510C		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FH004224.D	1	05/16/12	AV	05/10/12	OP5862	GFH230
Run #2							

	Initial Volume	Final Volume
Run #1	1060 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	0.261	0.38	0.25	mg/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	80%		25-146%

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: 05/08/12
Lab Sample ID: D34360-4	Date Received: 05/09/12
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: Knight Property	

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	78800	400	ug/l	1	05/14/12	05/15/12 JB	SW846 6010C ¹	SW846 3010A ³
Iron	13200	70	ug/l	1	05/14/12	05/15/12 JB	SW846 6010C ¹	SW846 3010A ³
Magnesium	53800	200	ug/l	1	05/14/12	05/15/12 JB	SW846 6010C ¹	SW846 3010A ³
Manganese	1170	5.0	ug/l	1	05/14/12	05/15/12 JB	SW846 6010C ¹	SW846 3010A ³
Potassium	4430	1000	ug/l	1	05/14/12	05/15/12 JB	SW846 6010C ¹	SW846 3010A ³
Selenium	< 50	50	ug/l	1	05/14/12	05/15/12 JB	SW846 6010C ¹	SW846 3010A ³
Sodium	63900	400	ug/l	1	05/14/12	05/17/12 JB	SW846 6010C ²	SW846 3010A ³

(1) Instrument QC Batch: MA2419

(2) Instrument QC Batch: MA2429

(3) Prep QC Batch: MP7467

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-6
Lab Sample ID: D34360-4
Matrix: AQ - Ground Water
Project: Knight Property

Date Sampled: 05/08/12
Date Received: 05/09/12
Percent Solids: n/a

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate as CaC	438	5.0	mg/l	1	05/14/12	CJ	SM20 2320B
Alkalinity, Carbonate	< 5.0	5.0	mg/l	1	05/14/12	CJ	SM20 2320B
Alkalinity, Total as CaCO ₃	438	5.0	mg/l	1	05/14/12	CJ	SM20 2320B
BOD, 5 Day	< 10	10	mg/l	1	05/09/12 11:00	CT	SM20 5210B
Bromide	1.0	1.0	mg/l	5	05/09/12 19:03	JML	EPA 300/SW846 9056
Chemical Oxygen Demand	< 10	10	mg/l	1	05/10/12	JD	SM20 5220D
Chloride	11.8	1.0	mg/l	2	05/09/12 14:34	JML	EPA 300/SW846 9056
Nitrogen, Nitrate ^a	< 0.23	0.23	mg/l	5	05/09/12 19:03	JML	EPA 300/SW846 9056
Nitrogen, Nitrite	< 0.010	0.010	mg/l	1	05/10/12 11:44	JML	EPA 300/SW846 9056
Phosphate, Ortho	< 0.065	0.065	mg/l	1	05/10/12 11:44	JML	EPA 300/SW846 9056
Phosphorus, Total	0.83	0.050	mg/l	5	05/18/12	CJ	HACH8190/SM4500P-B/E
Sulfate	13.2	1.0	mg/l	2	05/09/12 14:34	JML	EPA 300/SW846 9056
Total Organic Carbon	7.3	1.0	mg/l	1	05/14/12 18:45	JML	SM20 5310B
pH	7.65		su	1	05/10/12 13:30	JD	SM20 4500H

(a) Elevated detection limit due to matrix interference.

RL = Reporting Limit

Report of Analysis

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Client Sample ID:	MW-4	Date Sampled:	05/08/12
Lab Sample ID:	D34360-5	Date Received:	05/09/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G107739.D	1	05/14/12	DC	05/11/12	OP5870	E1G688
Run #2							

	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	0.47	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	
50-32-8	Benzo(a)pyrene	ND	4.7	0.47	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.7	0.47	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.7	0.47	ug/l	
207-08-9	Benzo(k)fluoranthene	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	0.47	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.7	0.47	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.7	0.47	ug/l	
91-20-3	Naphthalene	ND	4.7	0.47	ug/l	
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	84%		10-130%
321-60-8	2-Fluorobiphenyl	82%		10-130%
1718-51-0	Terphenyl-d14	58%		13-130%

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

Page 1 of 1

Client Sample ID:	MW-4	
Lab Sample ID:	D34360-5	Date Sampled: 05/08/12
Matrix:	AQ - Ground Water	Date Received: 05/09/12
Method:	SW846 8015B	Percent Solids: n/a
Project:	Knight Property	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA16062.D	1	05/10/12	SK	n/a	n/a	GGA910
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	0.10	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	97%		60-140%		

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:	05/08/12
Lab Sample ID:	D34360-5	Date Received:	05/09/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8021B		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA16062.D	1	05/10/12	SK	n/a	n/a	GTA910
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	109%		60-140%

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:	05/08/12
Lab Sample ID:	D34360-5	Date Received:	05/09/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846-8015B SW846 3510C		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FH004226.D	1	05/16/12	AV	05/10/12	OP5862	GFH230
Run #2							

	Initial Volume	Final Volume
Run #1	1060 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	0.38	0.25	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	93%		25-146%		

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: 05/08/12
Lab Sample ID: D34360-5	Date Received: 05/09/12
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: Knight Property	

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	107000	400	ug/l	1	05/14/12	05/15/12 JB	SW846 6010C ¹	SW846 3010A ³
Iron	18100	70	ug/l	1	05/14/12	05/15/12 JB	SW846 6010C ¹	SW846 3010A ³
Magnesium	55400	200	ug/l	1	05/14/12	05/15/12 JB	SW846 6010C ¹	SW846 3010A ³
Manganese	1910	5.0	ug/l	1	05/14/12	05/15/12 JB	SW846 6010C ¹	SW846 3010A ³
Potassium	5900	1000	ug/l	1	05/14/12	05/15/12 JB	SW846 6010C ¹	SW846 3010A ³
Selenium	< 50	50	ug/l	1	05/14/12	05/15/12 JB	SW846 6010C ¹	SW846 3010A ³
Sodium	71800	400	ug/l	1	05/14/12	05/17/12 JB	SW846 6010C ²	SW846 3010A ³

(1) Instrument QC Batch: MA2419

(2) Instrument QC Batch: MA2429

(3) Prep QC Batch: MP7467

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-4
Lab Sample ID: D34360-5
Matrix: AQ - Ground Water
Project: Knight Property

Date Sampled: 05/08/12
Date Received: 05/09/12
Percent Solids: n/a

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate as CaC	452	5.0	mg/l	1	05/14/12	CJ	SM20 2320B
Alkalinity, Carbonate	< 5.0	5.0	mg/l	1	05/14/12	CJ	SM20 2320B
Alkalinity, Total as CaCO ₃	452	5.0	mg/l	1	05/14/12	CJ	SM20 2320B
BOD, 5 Day	< 10	10	mg/l	1	05/09/12 11:00	CT	SM20 5210B
Bromide ^a	< 0.40	0.40	mg/l	2	05/09/12 14:49	JML	EPA 300/SW846 9056
Chemical Oxygen Demand	< 10	10	mg/l	1	05/10/12	JD	SM20 5220D
Chloride	7.2	1.0	mg/l	2	05/09/12 14:49	JML	EPA 300/SW846 9056
Nitrogen, Nitrate ^a	< 0.090	0.090	mg/l	2	05/09/12 14:49	JML	EPA 300/SW846 9056
Nitrogen, Nitrite	< 0.010	0.010	mg/l	1	05/10/12 11:59	JML	EPA 300/SW846 9056
Phosphate, Ortho	< 0.065	0.065	mg/l	1	05/10/12 11:59	JML	EPA 300/SW846 9056
Phosphorus, Total	1.1	0.050	mg/l	5	05/18/12	CJ	HACH8190/SM4500P-B/E
Sulfate	34.2	1.0	mg/l	2	05/09/12 14:49	JML	EPA 300/SW846 9056
Total Organic Carbon	4.5	1.0	mg/l	1	05/14/12 18:58	JML	SM20 5310B
pH	7.65		su	1	05/10/12 13:30	JD	SM20 4500H

(a) Elevated detection limit due to matrix interference.

RL = Reporting Limit

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

Accutest Laboratories Mountain States
4036 Youngfield Street Wheat Ridge, Co 80033
TEL. 303-425-6021 877-737-4521
FAX 303-425-6021 011

[illegible]

D34360: Chain of Custody

Page 1 of 4

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D34360

Client: OLSSON ASS.

Immediate Client Services Action Required: No

Date / Time Received: 5/9/2012 11:20:00 AM

No. Coolers: 1

Client Service Action Required at Login: No

Project: KNIGHT PROPERTY

Airbill #'s: CO

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	3. COC Present:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Custody Seals Intact:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	4. Smpl Dates/Time OK	<input checked="" type="checkbox"/>		<input type="checkbox"/>

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Cooler temp verification:			Infrared gun
3. Cooler media:			Ice (bag)

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	<input type="checkbox"/>		<input type="checkbox"/>	
2. Trip Blank listed on COC:	<input type="checkbox"/>		<input type="checkbox"/>	
3. Samples preserved properly:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
4. VOCs headspace free:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Container labeling complete:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
3. Sample container label / COC agree:	<input checked="" type="checkbox"/>		<input type="checkbox"/>

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. All containers accounted for:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
3. Condition of sample:			Intact

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
2. Bottles received for unspecified tests	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
3. Sufficient volume rec'd for analysis:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
4. Compositing instructions clear:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Filtering instructions clear:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments



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

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		Zip 80033		City Wheat Ridge		State CO		Zip 80033																			
Send Report to: Andrew Fluegel						Contact: Sample Management																							
Any questions contact: Renea Jackson																													
Phone/Fax #: (303) 425-6021; (303) 425-6854						Phone: (303) 287-9691																							
Field ID / Point of Collection <i>120509022</i>						Collection				Preservation			HPC								Comments								
						Date	Time	Matrix	# of bottles	HCL	NaOH	HNO3											H2SO4	None					
D34360X -1 <i>OIA</i>						5/8/12	12:35 PM	AQ	1							X													
-2 <i>O2A</i>							1:15 PM	AQ	1							X													
-3 <i>O3A</i>							2:05 PM	AQ	1							X													
-4 <i>O4A</i>							2:30 PM	AQ	1							X													
-5 <i>O5A</i>							3:10 PM	AQ	1							X													
Turnaround Information						Data Deliverable Information							Comments / Remarks																
<input checked="" type="checkbox"/> 10 Business Day Standard <input type="checkbox"/> Other _____ (Days)						Approved By: _____ _____ _____							<input type="checkbox"/> Commercial "A" <input type="checkbox"/> Commercial "B" <input type="checkbox"/> Commercial "BN" <input type="checkbox"/> Reduced Tier 1 <input type="checkbox"/> Full Tier 1							<input type="checkbox"/> PDF <input type="checkbox"/> Compact Disk Deliverable <input type="checkbox"/> Electronic Delivery: _____ <input type="checkbox"/> State Forms <input type="checkbox"/> Other (Specify) _____							Please use Colorado regulations and RLs.		
10 Day Turnaround Hardcopy, RUSH is FAX Data unless previously approved.																													
Sample Custody must be documented below each time samples change possession, including courier delivery.														For Subcontract Laboratory Use Only															
Relinquished by: <i>[Signature]</i>						Date & Time: <i>5/19/12</i>						Received By: <i>CCS/TG/12</i>						Date & Time: <i>1</i>						Seal #:		Headspace:			
1																										Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>			
Relinquished by: <i>2</i>						Date & Time:						Received By: <i>2</i>						Date & Time: <i>2</i>						Preserved where applicable: <input type="checkbox"/>					
2																													
Relinquished by: <i>3</i>						Date & Time:						Received By: <i>3</i>						Date & Time: <i>3</i>						Temperature °C _____ On Ice <input type="checkbox"/>					
3																													

Page 3 of 4



**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: 5/9/2012

Date Reported: 5/11/2012

PO Number: D34360X

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

Lab No.	Sample Description	Test Method	Result	Units	MDL	Analysis Date/By
120509022-01A	D34360X-1, 5/8/12, 12:35pm	* Heterotrophic Plate Count SM 9215B	300000	CFU/mL		RJ 5/9/2012
120509022-02A	D34360X-2, 5/8/12, 1:15pm	* Heterotrophic Plate Count SM 9215B	10000	CFU/mL		RJ 5/9/2012
120509022-03A	D34360X-3, 5/8/12, 2:05pm	* Heterotrophic Plate Count SM 9215B	1900	CFU/mL		RJ 5/9/2012
120509022-04A	D34360X-4, 5/8/12, 2:30pm	* Heterotrophic Plate Count SM 9215B	64000	CFU/mL		RJ 5/9/2012
120509022-05A	D34360X-5, 5/8/12, 3:10pm	* Heterotrophic Plate Count SM 9215B	5400	CFU/mL		RJ 5/9/2012

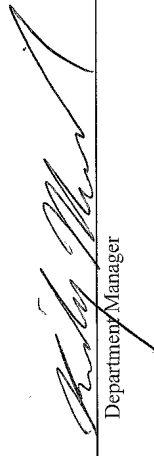
* = Scope Analysis

= 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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D34360: Chain of Custody

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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: D34360
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5870-MB	1G107715.D	1	05/11/12	DC	05/11/12	OP5870	E1G687

The QC reported here applies to the following samples:

Method: SW846 8270C

D34360-1, D34360-2, D34360-3, D34360-4, D34360-5

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.0	0.50	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	
50-32-8	Benzo(a)pyrene	ND	5.0	0.50	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	0.50	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	0.50	ug/l	
207-08-9	Benzo(k)fluoranthene	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	0.50	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
4165-60-0	Nitrobenzene-d5	100% 10-130%
321-60-8	2-Fluorobiphenyl	95% 10-130%
1718-51-0	Terphenyl-d14	113% 13-130%

Blank Spike Summary

Page 1 of 1

Job Number: D34360
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5870-BS	1G107716.D	1	05/11/12	DC	05/11/12	OP5870	E1G687

The QC reported here applies to the following samples:

Method: SW846 8270C

D34360-1, D34360-2, D34360-3, D34360-4, D34360-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	40.3	81	40-130
208-96-8	Acenaphthylene	50	42.8	86	41-130
120-12-7	Anthracene	50	46.4	93	45-130
56-55-3	Benzo(a)anthracene	50	52.7	105	43-136
50-32-8	Benzo(a)pyrene	50	48.7	97	40-132
205-99-2	Benzo(b)fluoranthene	50	55.0	110	38-147
191-24-2	Benzo(g,h,i)perylene	50	44.4	89	33-136
207-08-9	Benzo(k)fluoranthene	50	45.7	91	41-140
218-01-9	Chrysene	50	46.6	93	42-130
53-70-3	Dibenzo(a,h)anthracene	50	49.6	99	35-139
206-44-0	Fluoranthene	50	49.8	100	39-139
86-73-7	Fluorene	50	44.5	89	44-130
193-39-5	Indeno(1,2,3-cd)pyrene	50	46.1	92	29-140
90-12-0	1-Methylnaphthalene	50	36.6	73	31-130
91-57-6	2-Methylnaphthalene	50	35.2	70	32-130
91-20-3	Naphthalene	50	37.2	74	30-130
85-01-8	Phenanthrene	50	45.8	92	40-130
129-00-0	Pyrene	50	48.3	97	42-131

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	93%	10-130%
321-60-8	2-Fluorobiphenyl	88%	10-130%
1718-51-0	Terphenyl-d14	105%	13-130%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D34360
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5870-MS	1G107718.D	1	05/11/12	DC	05/11/12	OP5870	E1G687
OP5870-MSD	1G107719.D	1	05/11/12	DC	05/11/12	OP5870	E1G687
D34103-22	1G107717.D	1	05/11/12	DC	05/11/12	OP5870	E1G687

The QC reported here applies to the following samples:

Method: SW846 8270C

D34360-1, D34360-2, D34360-3, D34360-4, D34360-5

CAS No.	Compound	D34103-22 ug/l	Spike Q	ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND	50	31.0	62	31.1	62	0	10-174/30	
208-96-8	Acenaphthylene	ND	50	32.1	64	32.6	65	2	41-130/30	
120-12-7	Anthracene	ND	50	39.9	80	40.1	80	1	39-130/30	
56-55-3	Benzo(a)anthracene	ND	50	48.8	98	48.4	97	1	43-136/30	
50-32-8	Benzo(a)pyrene	ND	50	47.4	95	46.1	92	3	10-181/30	
205-99-2	Benzo(b)fluoranthene	ND	50	47.2	94	49.7	99	5	38-147/30	
191-24-2	Benzo(g,h,i)perylene	ND	50	41.7	83	40.3	81	3	33-136/30	
207-08-9	Benzo(k)fluoranthene	ND	50	50.2	100	44.7	89	12	41-140/30	
218-01-9	Chrysene	ND	50	43.7	87	43.2	86	1	41-130/30	
53-70-3	Dibenzo(a,h)anthracene	ND	50	47.0	94	45.6	91	3	35-139/30	
206-44-0	Fluoranthene	ND	50	45.6	91	45.7	91	0	39-139/30	
86-73-7	Fluorene	ND	50	35.2	70	36.3	73	3	15-162/30	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	50	43.9	88	42.5	85	3	10-188/30	
90-12-0	1-Methylnaphthalene	ND	50	27.9	56	27.0	54	3	31-130/30	
91-57-6	2-Methylnaphthalene	ND	50	26.9	54	25.9	52	4	24-132/30	
91-20-3	Naphthalene	ND	50	28.6	57	27.4	55	4	25-130/30	
85-01-8	Phenanthrene	ND	50	39.2	78	39.5	79	1	33-135/30	
129-00-0	Pyrene	ND	50	44.7	89	43.9	88	2	30-143/30	

CAS No.	Surrogate Recoveries	MS	MSD	D34103-22	Limits
4165-60-0	Nitrobenzene-d5	66%	62%	84%	10-130%
321-60-8	2-Fluorobiphenyl	63%	62%	79%	10-130%
1718-51-0	Terphenyl-d14	91%	88%	90%	13-130%

GC Volatiles

5

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: D34360
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGA910-MB	GA16054.D	1	05/10/12	SK	n/a	n/a	GGA910

The QC reported here applies to the following samples:

Method: SW846 8015B

D34360-1, D34360-2, D34360-3, D34360-4, D34360-5

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	0.20	0.10	mg/l	

CAS No.	Surrogate Recoveries	Limits
120-82-1	1,2,4-Trichlorobenzene	96% 60-140%

Method Blank Summary

Page 1 of 1

Job Number: D34360
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GTA910-MB	TA16054.D	1	05/10/12	SK	n/a	n/a	GTA910

The QC reported here applies to the following samples:

Method: SW846 8021B

D34360-2, D34360-3, D34360-4, D34360-5

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	106% 60-140%

Method Blank Summary

Page 1 of 1

Job Number: D34360

Account: CORCCOGJ Olsson Associates

Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GTA911-MB	TA16091.D	1	05/15/12	SK	n/a	n/a	GTA911

The QC reported here applies to the following samples:

Method: SW846 8021B

D34360-1

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	106% 60-140%

Blank Spike Summary

Job Number: D34360
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGA910-BS	GA16055.D	1	05/10/12	SK	n/a	n/a	GGA910

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

D34360-1, D34360-2, D34360-3, D34360-4, D34360-5

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
	TPH-GRO (C6-C10)	2.2	2.37	108	70-130

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

Blank Spike Summary

Page 1 of 1

Job Number: D34360
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GTA910-BS	TA16055.D	1	05/10/12	SK	n/a	n/a	GTA910

The QC reported here applies to the following samples:

Method: SW846 8021B

D34360-2, D34360-3, D34360-4, D34360-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	27.2	27.6	101	70-130
100-41-4	Ethylbenzene	45.6	46.4	102	70-130
108-88-3	Toluene	212	204	96	70-130
1330-20-7	Xylenes (total)	216	224	104	68-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	113%	60-140%

Blank Spike Summary

Page 1 of 1

Job Number: D34360

Account: CORCCOGJ Olsson Associates

Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GTA911-BS	TA16092.D	1	05/15/12	SK	n/a	n/a	GTA911

The QC reported here applies to the following samples:

Method: SW846 8021B

D34360-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	27.2	27.2	100	70-130
100-41-4	Ethylbenzene	45.6	46.3	102	70-130
108-88-3	Toluene	212	204	96	70-130
1330-20-7	Xylenes (total)	216	224	104	68-130

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

Matrix Spike Summary

Page 1 of 1

Job Number: D34360
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D34360-2MS	GA16059.D	1	05/10/12	SK	n/a	n/a	GGA910
D34360-2	GA16058.D	1	05/10/12	SK	n/a	n/a	GGA910

The QC reported here applies to the following samples:

Method: SW846 8015B

D34360-1, D34360-2, D34360-3, D34360-4, D34360-5

CAS No.	Compound	D34360-2 mg/l	Spike Q	MS mg/l	MS %	Limits
	TPH-GRO (C6-C10)	ND	2.2	2.41	110	61-130

CAS No.	Surrogate Recoveries	MS	D34360-2	Limits
120-82-1	1,2,4-Trichlorobenzene	101%	94%	60-140%

Matrix Spike Summary

Page 1 of 1

Job Number: D34360
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D34360-2MS	TA16059.D	1	05/10/12	SK	n/a	n/a	GTA910
D34360-2	TA16058.D	1	05/10/12	SK	n/a	n/a	GTA910

The QC reported here applies to the following samples:

Method: SW846 8021B

D34360-2, D34360-3, D34360-4, D34360-5

CAS No.	Compound	D34360-2 ug/l	Spike Q	MS ug/l	MS %	Limits
71-43-2	Benzene	ND	27.2	28.2	104	67-130
100-41-4	Ethylbenzene	ND	45.6	47.7	105	62-130
108-88-3	Toluene	ND	212	208	98	66-130
1330-20-7	Xylenes (total)	ND	216	231	107	61-130

CAS No.	Surrogate Recoveries	MS	D34360-2	Limits
120-82-1	1,2,4-Trichlorobenzene	111%	104%	60-140%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D34360
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D34452-5MS	TA16099.D	5	05/15/12	SK	n/a	n/a	GTA911
D34452-5MSD	TA16100.D	5	05/15/12	SK	n/a	n/a	GTA911
D34452-5	TA16098.D	5	05/15/12	SK	n/a	n/a	GTA911

The QC reported here applies to the following samples:

Method: SW846 8021B

D34360-1

CAS No.	Compound	D34452-5 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	67.7	136	193	92	190	90	2	67-130/30
100-41-4	Ethylbenzene	33.6	228	255	97	251	95	2	62-130/30
108-88-3	Toluene	56.1	1060	1030	92	1020	91	1	66-130/30
1330-20-7	Xylenes (total)	138	1080	1200	98	1180	97	2	61-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D34452-5	Limits
120-82-1	1,2,4-Trichlorobenzene	111%	111%	107%	60-140%

Duplicate Summary

Page 1 of 1

Job Number: D34360
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D34360-3DUP	GA16080.D	1	05/11/12	SK	n/a	n/a	GGA910
D34360-3	GA16060.D	1	05/10/12	SK	n/a	n/a	GGA910

The QC reported here applies to the following samples:

Method: SW846 8015B

D34360-1, D34360-2, D34360-3, D34360-4, D34360-5

CAS No.	Compound	D34360-3 mg/l	DUP Q	DUP mg/l	Q	RPD	Limits
	TPH-GRO (C6-C10)	ND		ND		nc	30

CAS No.	Surrogate Recoveries	DUP	D34360-3	Limits
120-82-1	1,2,4-Trichlorobenzene	96%	94%	60-140%

Duplicate Summary

Page 1 of 1

Job Number: D34360
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D34360-3DUP	TA16080.D	1	05/11/12	SK	n/a	n/a	GTA910
D34360-3	TA16060.D	1	05/10/12	SK	n/a	n/a	GTA910

The QC reported here applies to the following samples:

Method: SW846 8021B

D34360-2, D34360-3, D34360-4, D34360-5

CAS No.	Compound	D34360-3 ug/l	DUP Q	ug/l	Q	RPD	Limits
71-43-2	Benzene	ND	ND			nc	30
100-41-4	Ethylbenzene	ND	ND			nc	30
108-88-3	Toluene	ND	ND			nc	30
1330-20-7	Xylenes (total)	ND	ND			nc	30

CAS No.	Surrogate Recoveries	DUP	D34360-3	Limits
120-82-1	1,2,4-Trichlorobenzene	107%	105%	60-140%

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: D34360
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5862-MB	FH004206.D	1	05/15/12	AV	05/10/12	OP5862	GFH230

The QC reported here applies to the following samples:

Method: SW846-8015B

D34360-1, D34360-2, D34360-3, D34360-4, D34360-5

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	0.40	0.26	mg/l	

CAS No.	Surrogate Recoveries	Limits
84-15-1	o-Terphenyl	95% 25-146%

Blank Spike Summary

Page 1 of 1

Job Number: D34360
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5862-BS	FH004208.D	1	05/15/12	AV	05/10/12	OP5862	GFH230

The QC reported here applies to the following samples:

Method: SW846-8015B

D34360-1, D34360-2, D34360-3, D34360-4, D34360-5

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
	TPH-DRO (C10-C28)	20	13.3	67	49-130

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	96%	25-146%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D34360
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5862-MS	FH004210.D	1	05/15/12	AV	05/10/12	OP5862	GFH230
OP5862-MSD	FH004212.D	1	05/15/12	AV	05/10/12	OP5862	GFH230
D34103-19	FH004214.D	1	05/15/12	AV	05/10/12	OP5862	GFH230

The QC reported here applies to the following samples:

Method: SW846-8015B

D34360-1, D34360-2, D34360-3, D34360-4, D34360-5

CAS No.	Compound	D34103-19 mg/l	Spike Q	MS mg/l	MS %	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH-DRO (C10-C28)	ND	20	13.1	66	12.9	65	2	47-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D34103-19	Limits
84-15-1	o-Terphenyl	101%	100%	91%	25-146%

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: D34360
Account: CORCCOGJ - Olsson Associates
Project: Knight Property

QC Batch ID: MP7467
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 05/14/12

Metal	RL	IDL	MDL	MB raw	final
Aluminum	100	9.6	21		
Antimony	30	1.7	3.2		
Arsenic	25	4.4	7.6		
Barium	10	.1	.5		
Beryllium	10	1.3	3.1		
Boron	50	1	2.6		
Cadmium	10	.6	.59		
Calcium	400	5.4	7.3	4.1	<400
Chromium	10	.3	.39		
Cobalt	5.0	.4	.4		
Copper	10	1.2	3		
Iron	70	1.2	19	-0.70	<70
Lead	50	1.9	2.9		
Lithium	2.0	.5	.65		
Magnesium	200	6.5	11	2.4	<200
Manganese	5.0	1.2	1.8	-0.20	<5.0
Molybdenum	10	2.1	2.1		
Nickel	30	.5	.53		
Phosphorus	100	14	59		
Potassium	1000	61	61	-180	<1000
Selenium	50	4.8	5.7	6.5	<50
Silicon	50	2.9	2.1		
Silver	30	.4	.65		
Sodium	400	5.9	98	-23	<400
Strontium	5.0	.04	1.5		
Thallium	10	2.9	3		
Tin	50	12	24		
Titanium	10	.1	1.2		
Uranium	50	2.2	2.2		
Vanadium	10	.2	.39		
Zinc	30	.5	1.5		

Associated samples MP7467: D34360-1, D34360-2, D34360-3, D34360-4, D34360-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D34360
Account: CORCCOGJ - Olsson Associates
Project: Knight Property

QC Batch ID: MP7467
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D34360
Account: CORCCOGJ - Olsson Associates
Project: Knight Property

QC Batch ID: MP7467
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 05/14/12

Metal	D34360-1 Original MS	Spikelot ICPAL2	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	anr			
Barium	anr			
Beryllium				
Boron	anr			
Cadmium	anr			
Calcium	138000	159000	25000	84.0 75-125
Chromium	anr			
Cobalt				
Copper				
Iron	11600	15700	5000	82.0 75-125
Lead	anr			
Lithium				
Magnesium	54700	77400	25000	90.8 75-125
Manganese	653	1100	500	89.4 75-125
Molybdenum				
Nickel				
Phosphorus				
Potassium	4630	31400	25000	107.1 75-125
Selenium	7.5	1010	1000	100.3 75-125
Silicon				
Silver	anr			
Sodium	64700	88200	25000	94.0 75-125
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc				

Associated samples MP7467: D34360-1, D34360-2, D34360-3, D34360-4, D34360-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D34360
Account: CORCCOGJ - Olsson Associates
Project: Knight Property

QC Batch ID: MP7467
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D34360
 Account: CORCCOGJ - Olsson Associates
 Project: Knight Property

QC Batch ID: MP7467
 Matrix Type: AQUEOUS

Methods: SW846 6010C
 Units: ug/l

Prep Date: 05/14/12

Metal	D34360-1 Original	MSD	Spikelot ICPAL2	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	anr					
Barium	anr					
Beryllium						
Boron	anr					
Cadmium	anr					
Calcium	138000	159000	25000	84.0	0.0	20
Chromium	anr					
Cobalt						
Copper						
Iron	11600	15700	5000	82.0	0.0	20
Lead	anr					
Lithium						
Magnesium	54700	77200	25000	90.0	0.3	20
Manganese	653	1100	500	89.4	0.0	20
Molybdenum						
Nickel						
Phosphorus						
Potassium	4630	31200	25000	106.3	0.6	20
Selenium	7.5	1020	1000	101.3	1.0	20
Silicon						
Silver	anr					
Sodium	64700	89200	25000	98.0	1.1	20
Strontium						
Thallium						
Tin						
Titanium						
Uranium						
Vanadium						
Zinc						

Associated samples MP7467: D34360-1, D34360-2, D34360-3, D34360-4, D34360-5

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D34360
Account: CORCCOGJ - Olsson Associates
Project: Knight Property

QC Batch ID: MP7467
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D34360
Account: CORCCOGJ - Olsson Associates
Project: Knight Property

QC Batch ID: MP7467
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 05/14/12

Metal	BSP Result	Spikelot ICPALL2	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	anr			
Barium	anr			
Beryllium				
Boron	anr			
Cadmium	anr			
Calcium	24900	25000	99.6	80-120
Chromium	anr			
Cobalt				
Copper				
Iron	4710	5000	94.2	80-120
Lead	anr			
Lithium				
Magnesium	24000	25000	96.0	80-120
Manganese	483	500	96.6	80-120
Molybdenum				
Nickel				
Phosphorus				
Potassium	26000	25000	104.0	80-120
Selenium	1020	1000	102.0	80-120
Silicon				
Silver	anr			
Sodium	25100	25000	100.4	80-120
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc				

Associated samples MP7467: D34360-1, D34360-2, D34360-3, D34360-4, D34360-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D34360
Account: CORCCOGJ - Olsson Associates
Project: Knight Property

QC Batch ID: MP7467
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

(anr) Analyte not requested

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: D34360
Account: CORCCOGJ - Olsson Associates
Project: Knight Property

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Alkalinity, Bicarbonate as CaC	GN14945	5.0	0.0	mg/l	100	95.7	95.7	90-110%
Alkalinity, Carbonate	GN14946	5.0	0.0	mg/l	100	95.7	95.7	80-120%
Alkalinity, Total as CaCO3	GN14944	5.0	0.0	mg/l	100	95.7	95.7	90-110%
BOD, 5 Day	GP7174/GN14955	10	0.0	mg/l	198	194	98.0	85-115%
Bromide	GP7175/GN14901	0.20	0.0	mg/l	20	20.6	103.0	90-110%
Bromide	GP7189/GN14922	0.20	0.0	mg/l	20	20.6	103.0	90-110%
Chemical Oxygen Demand	GP7177/GN14912	10	0.0	mg/l	100	101	101.3	80-120%
Chloride	GP7175/GN14901	0.50	0.0	mg/l	20	19.8	99.0	90-110%
Chloride	GP7189/GN14922	0.50	0.0	mg/l	20	19.8	99.0	90-110%
Fluoride	GP7175/GN14901	0.10	0.0	mg/l	10	9.81	98.1	90-110%
Nitrogen, Nitrate	GP7175/GN14901	0.045	0.0	mg/l	4.52	4.34	96.1	90-110%
Nitrogen, Nitrate	GP7189/GN14922	0.045	0.0	mg/l	4.52	4.35	96.3	90-110%
Nitrogen, Nitrite	GP7175/GN14901	0.010	0.0	mg/l	6.09	5.95	97.7	90-110%
Nitrogen, Nitrite	GP7189/GN14922	0.010	0.0	mg/l	6.09	5.99	98.4	90-110%
Phosphate, Ortho	GP7175/GN14901	0.065	0.0	mg/l	9.78	10.3	105.3	90-110%
Phosphate, Ortho	GP7189/GN14922	0.065	0.0	mg/l	9.78	10.4	106.3	90-110%
Phosphorus, Total	GP7251/GN15037	0.010	0.0080	mg/l	0.543	0.53	97.8	80-120%
Sulfate	GP7175/GN14901	0.50	0.0	mg/l	30	29.1	97.0	90-110%
Total Organic Carbon	GP7178/GN14924	1.0	0.0	mg/l	7.2	7.12	98.9	90-110%
Total Organic Carbon	GP7213/GN14972	1.0	0.0	mg/l	7.2	7.19	99.9	90-110%
pH	GN14916			su	8.00	7.98	99.8	99.3-100.7%

Associated Samples:

Batch GN14916: D34360-1, D34360-2, D34360-3, D34360-4, D34360-5
Batch GN14944: D34360-1, D34360-2, D34360-3, D34360-4, D34360-5
Batch GN14945: D34360-1, D34360-2, D34360-3, D34360-4, D34360-5
Batch GN14946: D34360-1, D34360-2, D34360-3, D34360-4, D34360-5
Batch GP7174: D34360-1, D34360-2, D34360-3, D34360-4, D34360-5
Batch GP7175: D34360-1, D34360-2, D34360-3, D34360-4, D34360-5
Batch GP7177: D34360-1, D34360-2, D34360-3, D34360-4, D34360-5
Batch GP7178: D34360-1, D34360-2
Batch GP7189: D34360-1, D34360-2, D34360-3, D34360-4, D34360-5
Batch GP7213: D34360-3, D34360-4, D34360-5
Batch GP7251: D34360-1, D34360-2, D34360-3, D34360-4, D34360-5
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D34360
Account: CORCCOGJ - Olsson Associates
Project: Knight Property

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
BOD, 5 Day	GP7174/GN14955	D34295-2	mg/l	222	203	8.9	0-20%
Chemical Oxygen Demand	GP7177/GN14912	D34052-8	mg/l	0.0	0.0	0.0	0-20%
Phosphorus, Total	GP7251/GN15037	D34380-1	mg/l	0.0090	0.0090	0.0	0-20%
Total Organic Carbon	GP7178/GN14924	D34384-3	mg/l	1.8	1.7	5.7	0-20%
Total Organic Carbon	GP7213/GN14972	D34453-2	mg/l	2.8	2.9	3.5	0-20%

Associated Samples:

Batch GN14944: D34360-1, D34360-2, D34360-3, D34360-4, D34360-5
Batch GP7174: D34360-1, D34360-2, D34360-3, D34360-4, D34360-5
Batch GP7177: D34360-1, D34360-2, D34360-3, D34360-4, D34360-5
Batch GP7178: D34360-1, D34360-2
Batch GP7213: D34360-3, D34360-4, D34360-5
Batch GP7251: D34360-1, D34360-2, D34360-3, D34360-4, D34360-5
(*) Outside of QC limits

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MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D34360
Account: CORCCOGJ - Olsson Associates
Project: Knight Property

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Bromide	GP7175/GN14901	D34355-1	mg/l	0.37	2.5	3.0	105.2	80-120%
Bromide	GP7189/GN14922	D34409-2	mg/l	0.17	2.5	2.7	101.2	80-120%
Bromide	GP7189/GN14922	D34409-2	mg/l	0.0	2.5	2.7	101.2	80-120%
Chemical Oxygen Demand	GP7177/GN14912	D34052-8	mg/l	0.0	40	39.9	99.8	70-130%
Chloride	GP7175/GN14901	D34355-1	mg/l	34.1	50	87.9	107.6	80-120%
Chloride	GP7189/GN14922	D34409-2	mg/l	37.2	200	240	99.9	80-120%
Chloride	GP7189/GN14922	D34409-2	mg/l	40.2	200	240	99.9	80-120%
Fluoride	GP7175/GN14901	D34355-1	mg/l	1.7	2.5	4.3	96.0	80-120%
Fluoride	GP7175/GN14901	D34355-1	mg/l	1.9	2.5	4.3	96.0	80-120%
Nitrogen, Nitrate	GP7175/GN14901	D34355-1	mg/l	0.0	2.83	2.9	102.7	80-120%
Nitrogen, Nitrate	GP7189/GN14922	D34409-2	mg/l	10.8	11.3	22.1	100.0	80-120%
Nitrogen, Nitrite	GP7175/GN14901	D34355-1	mg/l	0.0	0.305	0.28	91.8	80-120%
Nitrogen, Nitrite	GP7189/GN14922	D34409-2	mg/l	0.0	0.305	0.27	88.5	80-120%
Phosphate, Ortho	GP7189/GN14922	D34409-2	mg/l	4.8	0.815	5.7	110.4	80-120%
Phosphate, Ortho	GP7189/GN14922	D34409-2	mg/l	8.2	0.815	5.7	110.4	80-120%
Phosphorus, Total	GP7251/GN15037	D34380-1	mg/l	0.0090	0.4	0.37	91.7	80-120%
Sulfate	GP7175/GN14901	D34355-1	mg/l	0.0	10	9.9	99.0	80-120%
Total Organic Carbon	GP7178/GN14924	D34273-1	mg/l	3.5	10	13.7	102.0	80-120%
Total Organic Carbon	GP7213/GN14972	D34427-1	mg/l	2.0	10	12.5	105.0	80-120%

Associated Samples:

Batch GN14944: D34360-1, D34360-2, D34360-3, D34360-4, D34360-5

Batch GP7175: D34360-1, D34360-2, D34360-3, D34360-4, D34360-5

Batch GP7177: D34360-1, D34360-2, D34360-3, D34360-4, D34360-5

Batch GP7178: D34360-1, D34360-2

Batch GP7189: D34360-1, D34360-2, D34360-3, D34360-4, D34360-5

Batch GP7213: D34360-3, D34360-4, D34360-5

Batch GP7251: D34360-1, D34360-2, D34360-3, D34360-4, D34360-5

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits



09/13/12

Technical Report for

Olsson Associates

Knight Property

011.1712.100.100001

Accutest Job Number: D38193

Sampling Date: 08/29/12

Report to:

Olsson Associates
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ATTN: Tim Dobransky

Total number of pages in report: **83**



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

A handwritten signature in black ink, appearing to read 'Brad Madadian'.

Brad Madadian
Laboratory Director

Client Service contact: Renea Jackson 303-425-6021

Certifications: CO, ID, NE, NM, ND (R-027) (PW), UT (NELAP CO00049), TX (T104704511-12-1)

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Test results relate only to samples analyzed.

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Sample Summary

Olsson Associates

Job No: D38193

Knight Property
Project No: 011.1712.100.100001

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
D38193-1	08/29/12	14:55 TC	08/30/12	AQ	Ground Water	MW-1
D38193-2	08/29/12	13:55 TC	08/30/12	AQ	Ground Water	MW-2A
D38193-3	08/29/12	13:00 TC	08/30/12	AQ	Ground Water	MW-3
D38193-4	08/29/12	14:25 TC	08/30/12	AQ	Ground Water	MW-4
D38193-5	08/29/12	12:25 TC	08/30/12	AQ	Ground Water	MW-5
D38193-6	08/29/12	11:25 TC	08/30/12	AQ	Ground Water	MW-6

Summary of Hits

Job Number: D38193
Account: Olsson Associates
Project: Knight Property
Collected: 08/29/12

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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D38193-1 MW-1

1-Methylnaphthalene	0.67 J	4.8	0.48	ug/l	SW846 8270C
2-Methylnaphthalene	1.0 J	4.8	0.48	ug/l	SW846 8270C
Naphthalene	2.0 J	4.8	0.48	ug/l	SW846 8270C
TPH-GRO (C6-C10)	2.92	0.20	0.10	mg/l	SW846 8015B
Benzene	15.9	5.0	1.0	ug/l	SW846 8021B
Toluene	7.2 J	10	5.0	ug/l	SW846 8021B
Ethylbenzene	65.9	10	5.0	ug/l	SW846 8021B
Xylenes (total)	517	10	10	ug/l	SW846 8021B
TPH-DRO (C10-C28)	0.886	0.38	0.25	mg/l	SW846-8015B
Calcium	170000	400		ug/l	SW846 6010C
Iron	17700	70		ug/l	SW846 6010C
Magnesium	72500	200		ug/l	SW846 6010C
Manganese	947	5.0		ug/l	SW846 6010C
Potassium	7700	1000		ug/l	SW846 6010C
Sodium	104000	400		ug/l	SW846 6010C
Alkalinity, Bicarbonate as CaCO3	667	5.0		mg/l	SM20 2320B
Alkalinity, Total as CaCO3	667	5.0		mg/l	SM20 2320B
BOD, 5 Day	21.0	10		mg/l	SM20 5210B
Bromide	2.8	0.50		mg/l	EPA 300/SW846 9056
Chemical Oxygen Demand	79.6	10		mg/l	SM20 5220D
Chloride	139	5.0		mg/l	EPA 300/SW846 9056
Nitrogen, Nitrate	0.077	0.020		mg/l	EPA 300/SW846 9056
Nitrogen, Nitrite	0.064	0.040		mg/l	EPA 300/SW846 9056
Sulfate	62.2	5.0		mg/l	EPA 300/SW846 9056
Total Organic Carbon	18.5	1.0		mg/l	SM20 5310B
pH	7.38			su	SM20 4500H B+

D38193-2 MW-2A

Calcium	94600	400		ug/l	SW846 6010C
Iron	10100	70		ug/l	SW846 6010C
Magnesium	61600	200		ug/l	SW846 6010C
Manganese	1640	5.0		ug/l	SW846 6010C
Potassium	6540	1000		ug/l	SW846 6010C
Sodium	96700	400		ug/l	SW846 6010C
Alkalinity, Bicarbonate as CaCO3	364	5.0		mg/l	SM20 2320B
Alkalinity, Total as CaCO3	364	5.0		mg/l	SM20 2320B
Chemical Oxygen Demand	43.3	10		mg/l	SM20 5220D
Chloride	142	5.0		mg/l	EPA 300/SW846 9056
Nitrogen, Nitrate	0.063	0.020		mg/l	EPA 300/SW846 9056
Nitrogen, Nitrite	0.040	0.040		mg/l	EPA 300/SW846 9056
Sulfate	108	5.0		mg/l	EPA 300/SW846 9056
Total Organic Carbon	5.6	1.0		mg/l	SM20 5310B

Summary of Hits

Job Number: D38193
Account: Olsson Associates
Project: Knight Property
Collected: 08/29/12

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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pH		7.51			su	SM20 4500H B+
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D38193-3 MW-3

Calcium	133000	400		ug/l	SW846 6010C
Iron	16300	70		ug/l	SW846 6010C
Magnesium	62800	200		ug/l	SW846 6010C
Manganese	1320	5.0		ug/l	SW846 6010C
Potassium	7870	1000		ug/l	SW846 6010C
Sodium	92900	400		ug/l	SW846 6010C
Alkalinity, Bicarbonate as CaCO3	396	5.0		mg/l	SM20 2320B
Alkalinity, Total as CaCO3	396	5.0		mg/l	SM20 2320B
Chemical Oxygen Demand	49.0	10		mg/l	SM20 5220D
Chloride	151	5.0		mg/l	EPA 300/SW846 9056
Sulfate	125	5.0		mg/l	EPA 300/SW846 9056
Total Organic Carbon	5.6	1.0		mg/l	SM20 5310B
pH	7.33			su	SM20 4500H B+

D38193-4 MW-4

Calcium	121000	400		ug/l	SW846 6010C
Iron	19700	70		ug/l	SW846 6010C
Magnesium	71500	200		ug/l	SW846 6010C
Manganese	4400	5.0		ug/l	SW846 6010C
Potassium	8730	1000		ug/l	SW846 6010C
Sodium	99100	400		ug/l	SW846 6010C
Alkalinity, Bicarbonate as CaCO3	616	5.0		mg/l	SM20 2320B
Alkalinity, Total as CaCO3	616	5.0		mg/l	SM20 2320B
BOD, 5 Day	10.7	10		mg/l	SM20 5210B
Bromide	0.19	0.10		mg/l	EPA 300/SW846 9056
Chemical Oxygen Demand	57.0	10		mg/l	SM20 5220D
Chloride	13.1	1.0		mg/l	EPA 300/SW846 9056
Nitrogen, Nitrite	0.0080	0.0080		mg/l	EPA 300/SW846 9056
Sulfate	13.0	1.0		mg/l	EPA 300/SW846 9056
Total Organic Carbon	8.5	1.0		mg/l	SM20 5310B
pH	7.64			su	SM20 4500H B+

D38193-5 MW-5

Calcium	99900	400		ug/l	SW846 6010C
Iron	11400	70		ug/l	SW846 6010C
Magnesium	56000	200		ug/l	SW846 6010C
Manganese	808	5.0		ug/l	SW846 6010C
Potassium	5690	1000		ug/l	SW846 6010C
Sodium	79700	400		ug/l	SW846 6010C

Summary of Hits

Job Number: D38193
Account: Olsson Associates
Project: Knight Property
Collected: 08/29/12

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Alkalinity, Bicarbonate as CaCO ₃		429	5.0		mg/l	SM20 2320B
Alkalinity, Total as CaCO ₃		429	5.0		mg/l	SM20 2320B
Chemical Oxygen Demand		75.5	10		mg/l	SM20 5220D
Chloride		133	5.0		mg/l	EPA 300/SW846 9056
Nitrogen, Nitrate		0.039	0.020		mg/l	EPA 300/SW846 9056
Nitrogen, Nitrite		0.052	0.040		mg/l	EPA 300/SW846 9056
Sulfate		101	5.0		mg/l	EPA 300/SW846 9056
Total Organic Carbon		6.4	1.0		mg/l	SM20 5310B
pH		7.47			su	SM20 4500H B+

D38193-6 MW-6

TPH-DRO (C10-C28)	0.445	0.38	0.25	mg/l	SW846-8015B
Calcium	114000	400		ug/l	SW846 6010C
Iron	6900	70		ug/l	SW846 6010C
Magnesium	57400	200		ug/l	SW846 6010C
Manganese	817	5.0		ug/l	SW846 6010C
Potassium	6430	1000		ug/l	SW846 6010C
Sodium	82000	400		ug/l	SW846 6010C
Alkalinity, Bicarbonate as CaCO ₃	352	5.0		mg/l	SM20 2320B
Alkalinity, Total as CaCO ₃	352	5.0		mg/l	SM20 2320B
Bromide	0.063	0.050		mg/l	EPA 300/SW846 9056
Chemical Oxygen Demand	47.4	10		mg/l	SM20 5220D
Chloride	136	5.0		mg/l	EPA 300/SW846 9056
Nitrogen, Nitrite	0.040	0.040		mg/l	EPA 300/SW846 9056
Sulfate	114	5.0		mg/l	EPA 300/SW846 9056
Total Organic Carbon	5.2	1.0		mg/l	SM20 5310B
pH	7.39			su	SM20 4500H B+

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW-1	Date Sampled:	08/29/12
Lab Sample ID:	D38193-1	Date Received:	08/30/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G109476.D	1	09/05/12	SM	09/04/12	OP6563	E1G787
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	0.48	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	
50-32-8	Benzo(a)pyrene	ND	4.8	0.48	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.48	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	0.48	ug/l	
207-08-9	Benzo(k)fluoranthene	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	0.48	ug/l	
90-12-0	1-Methylnaphthalene	0.67	4.8	0.48	ug/l	J
91-57-6	2-Methylnaphthalene	1.0	4.8	0.48	ug/l	J
91-20-3	Naphthalene	2.0	4.8	0.48	ug/l	J
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	48%		10-130%
321-60-8	2-Fluorobiphenyl	50%		10-130%
1718-51-0	Terphenyl-d14	30%		13-130%

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	
Lab Sample ID:	D38193-1	Date Sampled: 08/29/12
Matrix:	AQ - Ground Water	Date Received: 08/30/12
Method:	SW846 8015B	Percent Solids: n/a
Project:	Knight Property	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB17341.D	1	08/31/12	SK	n/a	n/a	GGB952
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	2.92	0.20	0.10	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	95%		60-140%		

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	Date Sampled:	08/29/12
Lab Sample ID:	D38193-1	Date Received:	08/30/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8021B		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TB17433.D	5	09/07/12	SK	n/a	n/a	GTB957
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	15.9	5.0	1.0	ug/l	
108-88-3	Toluene	7.2	10	5.0	ug/l	J
100-41-4	Ethylbenzene	65.9	10	5.0	ug/l	
1330-20-7	Xylenes (total)	517	10	10	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	96%		60-140%

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:	D38193-1	Date Sampled: 08/29/12
Matrix:	AQ - Ground Water	Date Received: 08/30/12
Method:	SW846-8015B SW846 3510C	Percent Solids: n/a
Project:	Knight Property	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD17088.D	1	09/05/12	AW	09/04/12	OP6557	GFD878
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	0.886	0.38	0.25	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	97%		25-146%		

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: 08/29/12
Lab Sample ID: D38193-1	Date Received: 08/30/12
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: Knight Property	

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	170000	400	ug/l	1	09/05/12	09/06/12 JB	SW846 6010C ¹	SW846 3010A ²
Iron	17700	70	ug/l	1	09/05/12	09/06/12 JB	SW846 6010C ¹	SW846 3010A ²
Magnesium	72500	200	ug/l	1	09/05/12	09/06/12 JB	SW846 6010C ¹	SW846 3010A ²
Manganese	947	5.0	ug/l	1	09/05/12	09/06/12 JB	SW846 6010C ¹	SW846 3010A ²
Potassium	7700	1000	ug/l	1	09/05/12	09/06/12 JB	SW846 6010C ¹	SW846 3010A ²
Selenium	< 50	50	ug/l	1	09/05/12	09/06/12 JB	SW846 6010C ¹	SW846 3010A ²
Sodium	104000	400	ug/l	1	09/05/12	09/06/12 JB	SW846 6010C ¹	SW846 3010A ²

(1) Instrument QC Batch: MA2780

(2) Prep QC Batch: MP8301

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-1
Lab Sample ID: D38193-1
Matrix: AQ - Ground Water
Project: Knight Property

Date Sampled: 08/29/12
Date Received: 08/30/12
Percent Solids: n/a

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate as CaC	667	5.0	mg/l	1	08/31/12	JK	SM20 2320B
Alkalinity, Carbonate	< 5.0	5.0	mg/l	1	08/31/12	JK	SM20 2320B
Alkalinity, Total as CaCO ₃	667	5.0	mg/l	1	08/31/12	JK	SM20 2320B
BOD, 5 Day	21.0	10	mg/l	1	08/31/12 11:00	JD	SM20 5210B
Bromide	2.8	0.50	mg/l	10	08/31/12 13:34	JML	EPA 300/SW846 9056
Chemical Oxygen Demand	79.6	10	mg/l	1	09/06/12	CJ	SM20 5220D
Chloride	139	5.0	mg/l	10	08/31/12 13:34	JML	EPA 300/SW846 9056
Nitrogen, Nitrate	0.077	0.020	mg/l	2	08/31/12 12:22	JML	EPA 300/SW846 9056
Nitrogen, Nitrite	0.064	0.040	mg/l	10	08/31/12 13:34	JML	EPA 300/SW846 9056
Phosphate, Ortho ^a	< 0.13	0.13	mg/l	2	08/31/12 12:22	JML	EPA 300/SW846 9056
Sulfate	62.2	5.0	mg/l	10	08/31/12 13:34	JML	EPA 300/SW846 9056
Total Organic Carbon	18.5	1.0	mg/l	1	09/10/12 12:56	JML	SM20 5310B
pH	7.38		su	1	08/30/12 15:15	JD	SM20 4500H B+

(a) Elevated detection limit due to matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-2A	Date Sampled:	08/29/12
Lab Sample ID:	D38193-2	Date Received:	08/30/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G109477.D	1	09/05/12	SM	09/04/12	OP6563	E1G787
Run #2							

	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	0.47	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	
50-32-8	Benzo(a)pyrene	ND	4.7	0.47	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.7	0.47	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.7	0.47	ug/l	
207-08-9	Benzo(k)fluoranthene	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	0.47	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.7	0.47	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.7	0.47	ug/l	
91-20-3	Naphthalene	ND	4.7	0.47	ug/l	
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	49%		10-130%
321-60-8	2-Fluorobiphenyl	54%		10-130%
1718-51-0	Terphenyl-d14	40%		13-130%

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:	08/29/12
Lab Sample ID:	D38193-2	Date Received:	08/30/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8015B		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB17326.D	1	08/31/12	SK	n/a	n/a	GGB952
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	0.10	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	90%		60-140%		

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:	08/29/12
Lab Sample ID:	D38193-2	Date Received:	08/30/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8021B		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TB17326.D	1	08/31/12	SK	n/a	n/a	GTB952
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	91%		60-140%

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	
Lab Sample ID:	D38193-2	Date Sampled: 08/29/12
Matrix:	AQ - Ground Water	Date Received: 08/30/12
Method:	SW846-8015B SW846 3510C	Percent Solids: n/a
Project:	Knight Property	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD17090.D	1	09/05/12	AW	09/04/12	OP6557	GFD878
Run #2							

	Initial Volume	Final Volume
Run #1	1020 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	0.39	0.25	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	98%		25-146%		

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: 08/29/12
Lab Sample ID: D38193-2	Date Received: 08/30/12
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: Knight Property	

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	94600	400	ug/l	1	09/05/12	09/06/12 JB	SW846 6010C ¹	SW846 3010A ²
Iron	10100	70	ug/l	1	09/05/12	09/06/12 JB	SW846 6010C ¹	SW846 3010A ²
Magnesium	61600	200	ug/l	1	09/05/12	09/06/12 JB	SW846 6010C ¹	SW846 3010A ²
Manganese	1640	5.0	ug/l	1	09/05/12	09/06/12 JB	SW846 6010C ¹	SW846 3010A ²
Potassium	6540	1000	ug/l	1	09/05/12	09/06/12 JB	SW846 6010C ¹	SW846 3010A ²
Selenium	< 50	50	ug/l	1	09/05/12	09/06/12 JB	SW846 6010C ¹	SW846 3010A ²
Sodium	96700	400	ug/l	1	09/05/12	09/06/12 JB	SW846 6010C ¹	SW846 3010A ²

(1) Instrument QC Batch: MA2780

(2) Prep QC Batch: MP8301

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-2A
Lab Sample ID: D38193-2
Matrix: AQ - Ground Water
Project: Knight Property

Date Sampled: 08/29/12
Date Received: 08/30/12
Percent Solids: n/a

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate as CaC	364	5.0	mg/l	1	08/31/12	JK	SM20 2320B
Alkalinity, Carbonate	< 5.0	5.0	mg/l	1	08/31/12	JK	SM20 2320B
Alkalinity, Total as CaCO ₃	364	5.0	mg/l	1	08/31/12	JK	SM20 2320B
BOD, 5 Day	< 10	10	mg/l	1	08/31/12 11:00	JD	SM20 5210B
Bromide ^a	< 0.10	0.10	mg/l	2	08/31/12 11:39	JML	EPA 300/SW846 9056
Chemical Oxygen Demand	43.3	10	mg/l	1	09/06/12	CJ	SM20 5220D
Chloride	142	5.0	mg/l	10	08/31/12 12:36	JML	EPA 300/SW846 9056
Nitrogen, Nitrate	0.063	0.020	mg/l	2	08/31/12 11:39	JML	EPA 300/SW846 9056
Nitrogen, Nitrite	0.040	0.040	mg/l	10	08/31/12 12:36	JML	EPA 300/SW846 9056
Phosphate, Ortho ^a	< 0.13	0.13	mg/l	2	08/31/12 11:39	JML	EPA 300/SW846 9056
Sulfate	108	5.0	mg/l	10	08/31/12 12:36	JML	EPA 300/SW846 9056
Total Organic Carbon	5.6	1.0	mg/l	1	09/10/12 13:09	JML	SM20 5310B
pH	7.51		su	1	08/30/12 15:15	JD	SM20 4500H B+

(a) Elevated detection limit due to matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-3	Date Sampled:	08/29/12
Lab Sample ID:	D38193-3	Date Received:	08/30/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G109478.D	1	09/05/12	SM	09/04/12	OP6563	E1G787
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	0.48	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	
50-32-8	Benzo(a)pyrene	ND	4.8	0.48	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.48	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	0.48	ug/l	
207-08-9	Benzo(k)fluoranthene	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	0.48	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	53%		10-130%
321-60-8	2-Fluorobiphenyl	55%		10-130%
1718-51-0	Terphenyl-d14	45%		13-130%

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:	08/29/12
Lab Sample ID:	D38193-3	Date Received:	08/30/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8015B		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB17342.D	1	08/31/12	SK	n/a	n/a	GGB952
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	0.10	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	90%		60-140%		

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:	08/29/12
Lab Sample ID:	D38193-3	Date Received:	08/30/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8021B		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TB17342.D	1	08/31/12	SK	n/a	n/a	GTB952
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	93%		60-140%

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:	08/29/12
Lab Sample ID:	D38193-3	Date Received:	08/30/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846-8015B SW846 3510C		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD17092.D	1	09/05/12	AW	09/04/12	OP6557	GFD878
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	0.38	0.25	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	111%		25-146%		

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**Lab Sample ID:** D38193-3**Matrix:** AQ - Ground Water**Project:** Knight Property**Date Sampled:** 08/29/12**Date Received:** 08/30/12**Percent Solids:** n/a**Total Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	133000	400	ug/l	1	09/05/12	09/06/12 JB	SW846 6010C ¹	SW846 3010A ³
Iron	16300	70	ug/l	1	09/05/12	09/06/12 JB	SW846 6010C ¹	SW846 3010A ³
Magnesium	62800	200	ug/l	1	09/05/12	09/06/12 JB	SW846 6010C ¹	SW846 3010A ³
Manganese	1320	5.0	ug/l	1	09/05/12	09/06/12 JB	SW846 6010C ¹	SW846 3010A ³
Potassium	7870	1000	ug/l	1	09/05/12	09/07/12 JB	SW846 6010C ²	SW846 3010A ³
Selenium	< 50	50	ug/l	1	09/05/12	09/06/12 JB	SW846 6010C ¹	SW846 3010A ³
Sodium	92900	400	ug/l	1	09/05/12	09/07/12 JB	SW846 6010C ²	SW846 3010A ³

(1) Instrument QC Batch: MA2780

(2) Instrument QC Batch: MA2782

(3) Prep QC Batch: MP8301

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-3
Lab Sample ID: D38193-3
Matrix: AQ - Ground Water
Project: Knight Property

Date Sampled: 08/29/12
Date Received: 08/30/12
Percent Solids: n/a

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate as CaC	396	5.0	mg/l	1	08/31/12	JK	SM20 2320B
Alkalinity, Carbonate	< 5.0	5.0	mg/l	1	08/31/12	JK	SM20 2320B
Alkalinity, Total as CaCO ₃	396	5.0	mg/l	1	08/31/12	JK	SM20 2320B
BOD, 5 Day	< 10	10	mg/l	1	08/31/12 11:00	JD	SM20 5210B
Bromide ^a	< 0.10	0.10	mg/l	2	08/31/12 11:10	JML	EPA 300/SW846 9056
Chemical Oxygen Demand	49.0	10	mg/l	1	09/06/12	CJ	SM20 5220D
Chloride	151	5.0	mg/l	10	08/31/12 11:53	JML	EPA 300/SW846 9056
Nitrogen, Nitrate ^a	< 0.020	0.020	mg/l	2	08/31/12 11:10	JML	EPA 300/SW846 9056
Nitrogen, Nitrite ^a	< 0.040	0.040	mg/l	10	08/31/12 11:53	JML	EPA 300/SW846 9056
Phosphate, Ortho ^a	< 0.13	0.13	mg/l	2	08/31/12 11:10	JML	EPA 300/SW846 9056
Sulfate	125	5.0	mg/l	10	08/31/12 11:53	JML	EPA 300/SW846 9056
Total Organic Carbon	5.6	1.0	mg/l	1	09/10/12 13:20	JML	SM20 5310B
pH	7.33		su	1	08/30/12 15:15	JD	SM20 4500H B+

(a) Elevated detection limit due to matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-4	Date Sampled:	08/29/12
Lab Sample ID:	D38193-4	Date Received:	08/30/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	Knight Property		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G109479.D	1	09/05/12	SM	09/04/12	OP6563	E1G787
Run #2							

Run #	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	0.48	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	
50-32-8	Benzo(a)pyrene	ND	4.8	0.48	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.48	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	0.48	ug/l	
207-08-9	Benzo(k)fluoranthene	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	0.48	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	61%		10-130%
321-60-8	2-Fluorobiphenyl	62%		10-130%
1718-51-0	Terphenyl-d14	53%		13-130%

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						
Lab Sample ID:	D38193-4					Date Sampled:	08/29/12
Matrix:	AQ - Ground Water					Date Received:	08/30/12
Method:	SW846 8015B					Percent Solids:	n/a
Project:	Knight Property						

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB17343.D	1	08/31/12	SK	n/a	n/a	GGB952
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	0.10	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	91%		60-140%		

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:	08/29/12
Lab Sample ID:	D38193-4	Date Received:	08/30/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8021B		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TB17343.D	1	08/31/12	SK	n/a	n/a	GTB952
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	93%		60-140%

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:	08/29/12
Lab Sample ID:	D38193-4	Date Received:	08/30/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846-8015B SW846 3510C		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD17094.D	1	09/05/12	AW	09/04/12	OP6557	GFD878
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	0.39	0.25	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	105%		25-146%		

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: 08/29/12
Lab Sample ID: D38193-4	Date Received: 08/30/12
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: Knight Property	

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	121000	400	ug/l	1	09/05/12	09/06/12 JB	SW846 6010C ¹	SW846 3010A ³
Iron	19700	70	ug/l	1	09/05/12	09/06/12 JB	SW846 6010C ¹	SW846 3010A ³
Magnesium	71500	200	ug/l	1	09/05/12	09/06/12 JB	SW846 6010C ¹	SW846 3010A ³
Manganese	4400	5.0	ug/l	1	09/05/12	09/06/12 JB	SW846 6010C ¹	SW846 3010A ³
Potassium	8730	1000	ug/l	1	09/05/12	09/07/12 JB	SW846 6010C ²	SW846 3010A ³
Selenium	< 50	50	ug/l	1	09/05/12	09/06/12 JB	SW846 6010C ¹	SW846 3010A ³
Sodium	99100	400	ug/l	1	09/05/12	09/07/12 JB	SW846 6010C ²	SW846 3010A ³

(1) Instrument QC Batch: MA2780

(2) Instrument QC Batch: MA2782

(3) Prep QC Batch: MP8301

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-4
Lab Sample ID: D38193-4
Matrix: AQ - Ground Water
Project: Knight Property

Date Sampled: 08/29/12
Date Received: 08/30/12
Percent Solids: n/a

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate as CaC	616	5.0	mg/l	1	08/31/12	JK	SM20 2320B
Alkalinity, Carbonate	< 5.0	5.0	mg/l	1	08/31/12	JK	SM20 2320B
Alkalinity, Total as CaCO ₃	616	5.0	mg/l	1	08/31/12	JK	SM20 2320B
BOD, 5 Day	10.7	10	mg/l	1	08/31/12 11:00	JD	SM20 5210B
Bromide	0.19	0.10	mg/l	2	08/31/12 12:07	JML	EPA 300/SW846 9056
Chemical Oxygen Demand	57.0	10	mg/l	1	09/06/12	CJ	SM20 5220D
Chloride	13.1	1.0	mg/l	2	08/31/12 12:07	JML	EPA 300/SW846 9056
Nitrogen, Nitrate ^a	< 0.020	0.020	mg/l	2	08/31/12 12:07	JML	EPA 300/SW846 9056
Nitrogen, Nitrite	0.0080	0.0080	mg/l	2	08/31/12 12:07	JML	EPA 300/SW846 9056
Phosphate, Ortho ^a	< 0.13	0.13	mg/l	2	08/31/12 12:07	JML	EPA 300/SW846 9056
Sulfate	13.0	1.0	mg/l	2	08/31/12 12:07	JML	EPA 300/SW846 9056
Total Organic Carbon	8.5	1.0	mg/l	1	09/10/12 13:31	JML	SM20 5310B
pH	7.64		su	1	08/30/12 15:15	JD	SM20 4500H B+

(a) Elevated detection limit due to matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-5	Date Sampled:	08/29/12
Lab Sample ID:	D38193-5	Date Received:	08/30/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	Knight Property		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G109480.D	1	09/05/12	SM	09/04/12	OP6563	E1G787
Run #2							

Run #	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	0.48	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	
50-32-8	Benzo(a)pyrene	ND	4.8	0.48	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.48	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	0.48	ug/l	
207-08-9	Benzo(k)fluoranthene	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	0.48	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	53%		10-130%
321-60-8	2-Fluorobiphenyl	58%		10-130%
1718-51-0	Terphenyl-d14	50%		13-130%

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:	08/29/12
Lab Sample ID:	D38193-5	Date Received:	08/30/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8015B		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB17344.D	1	08/31/12	SK	n/a	n/a	GGB952
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	0.10	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	91%		60-140%		

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:	08/29/12
Lab Sample ID:	D38193-5	Date Received:	08/30/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8021B		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TB17344.D	1	08/31/12	SK	n/a	n/a	GTB952
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	93%		60-140%

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	
Lab Sample ID:	D38193-5	Date Sampled: 08/29/12
Matrix:	AQ - Ground Water	Date Received: 08/30/12
Method:	SW846-8015B SW846 3510C	Percent Solids: n/a
Project:	Knight Property	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD17096.D	1	09/05/12	AW	09/04/12	OP6557	GFD878
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	0.38	0.25	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	119%		25-146%		

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: 08/29/12
Lab Sample ID: D38193-5	Date Received: 08/30/12
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: Knight Property	

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	99900	400	ug/l	1	09/05/12	09/06/12 JB	SW846 6010C ¹	SW846 3010A ³
Iron	11400	70	ug/l	1	09/05/12	09/06/12 JB	SW846 6010C ¹	SW846 3010A ³
Magnesium	56000	200	ug/l	1	09/05/12	09/06/12 JB	SW846 6010C ¹	SW846 3010A ³
Manganese	808	5.0	ug/l	1	09/05/12	09/06/12 JB	SW846 6010C ¹	SW846 3010A ³
Potassium	5690	1000	ug/l	1	09/05/12	09/07/12 JB	SW846 6010C ²	SW846 3010A ³
Selenium	< 50	50	ug/l	1	09/05/12	09/06/12 JB	SW846 6010C ¹	SW846 3010A ³
Sodium	79700	400	ug/l	1	09/05/12	09/07/12 JB	SW846 6010C ²	SW846 3010A ³

(1) Instrument QC Batch: MA2780

(2) Instrument QC Batch: MA2782

(3) Prep QC Batch: MP8301

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-5	Date Sampled: 08/29/12
Lab Sample ID: D38193-5	Date Received: 08/30/12
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: Knight Property	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate as CaC	429	5.0	mg/l	1	08/31/12	JK	SM20 2320B
Alkalinity, Carbonate	< 5.0	5.0	mg/l	1	08/31/12	JK	SM20 2320B
Alkalinity, Total as CaCO ₃	429	5.0	mg/l	1	08/31/12	JK	SM20 2320B
BOD, 5 Day	< 10	10	mg/l	1	08/31/12 11:00	JD	SM20 5210B
Bromide ^a	< 0.10	0.10	mg/l	2	08/31/12 10:41	JML	EPA 300/SW846 9056
Chemical Oxygen Demand	75.5	10	mg/l	1	09/06/12	CJ	SM20 5220D
Chloride	133	5.0	mg/l	10	08/31/12 11:24	JML	EPA 300/SW846 9056
Nitrogen, Nitrate	0.039	0.020	mg/l	2	08/31/12 10:41	JML	EPA 300/SW846 9056
Nitrogen, Nitrite	0.052	0.040	mg/l	10	08/31/12 11:24	JML	EPA 300/SW846 9056
Phosphate, Ortho ^a	< 0.13	0.13	mg/l	2	08/31/12 10:41	JML	EPA 300/SW846 9056
Sulfate	101	5.0	mg/l	10	08/31/12 11:24	JML	EPA 300/SW846 9056
Total Organic Carbon	6.4	1.0	mg/l	1	09/10/12 13:44	JML	SM20 5310B
pH	7.47		su	1	08/30/12 15:15	JD	SM20 4500H B+

(a) Elevated detection limit due to matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-6	Date Sampled:	08/29/12
Lab Sample ID:	D38193-6	Date Received:	08/30/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G109481.D	1	09/05/12	SM	09/04/12	OP6563	E1G787
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	0.48	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	
50-32-8	Benzo(a)pyrene	ND	4.8	0.48	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.48	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	0.48	ug/l	
207-08-9	Benzo(k)fluoranthene	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	0.48	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	41%		10-130%
321-60-8	2-Fluorobiphenyl	43%		10-130%
1718-51-0	Terphenyl-d14	32%		13-130%

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:	08/29/12
Lab Sample ID:	D38193-6	Date Received:	08/30/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8015B		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB17345.D	1	08/31/12	SK	n/a	n/a	GGB952
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	0.10	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	91%		60-140%		

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:	08/29/12
Lab Sample ID:	D38193-6	Date Received:	08/30/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8021B		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TB17345.D	1	08/31/12	SK	n/a	n/a	GTB952
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	92%		60-140%

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:	08/29/12
Lab Sample ID:	D38193-6	Date Received:	08/30/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846-8015B SW846 3510C		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD17098.D	1	09/05/12	AW	09/04/12	OP6557	GFD878
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	0.445	0.38	0.25	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	89%		25-146%		

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: 08/29/12
Lab Sample ID: D38193-6	Date Received: 08/30/12
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: Knight Property	

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	114000	400	ug/l	1	09/05/12	09/06/12 JB	SW846 6010C ¹	SW846 3010A ³
Iron	6900	70	ug/l	1	09/05/12	09/06/12 JB	SW846 6010C ¹	SW846 3010A ³
Magnesium	57400	200	ug/l	1	09/05/12	09/06/12 JB	SW846 6010C ¹	SW846 3010A ³
Manganese	817	5.0	ug/l	1	09/05/12	09/06/12 JB	SW846 6010C ¹	SW846 3010A ³
Potassium	6430	1000	ug/l	1	09/05/12	09/07/12 JB	SW846 6010C ²	SW846 3010A ³
Selenium	< 50	50	ug/l	1	09/05/12	09/06/12 JB	SW846 6010C ¹	SW846 3010A ³
Sodium	82000	400	ug/l	1	09/05/12	09/07/12 JB	SW846 6010C ²	SW846 3010A ³

(1) Instrument QC Batch: MA2780

(2) Instrument QC Batch: MA2782

(3) Prep QC Batch: MP8301

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-6	Date Sampled: 08/29/12
Lab Sample ID: D38193-6	Date Received: 08/30/12
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: Knight Property	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate as CaC	352	5.0	mg/l	1	08/31/12	JK	SM20 2320B
Alkalinity, Carbonate	< 5.0	5.0	mg/l	1	08/31/12	JK	SM20 2320B
Alkalinity, Total as CaCO ₃	352	5.0	mg/l	1	08/31/12	JK	SM20 2320B
BOD, 5 Day	< 10	10	mg/l	1	08/31/12 11:00	JD	SM20 5210B
Bromide	0.063	0.050	mg/l	1	08/31/12 10:27	JML	EPA 300/SW846 9056
Chemical Oxygen Demand	47.4	10	mg/l	1	09/06/12	CJ	SM20 5220D
Chloride	136	5.0	mg/l	10	08/31/12 10:55	JML	EPA 300/SW846 9056
Nitrogen, Nitrate	< 0.010	0.010	mg/l	1	08/31/12 10:27	JML	EPA 300/SW846 9056
Nitrogen, Nitrite	0.040	0.040	mg/l	10	08/31/12 10:55	JML	EPA 300/SW846 9056
Phosphate, Ortho	< 0.065	0.065	mg/l	1	08/31/12 10:27	JML	EPA 300/SW846 9056
Sulfate	114	5.0	mg/l	10	08/31/12 10:55	JML	EPA 300/SW846 9056
Total Organic Carbon	5.2	1.0	mg/l	1	09/10/12 13:55	JML	SM20 5310B
pH	7.39		su	1	08/30/12 15:15	JD	SM20 4500H B+

RL = Reporting Limit

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY

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

FED-EX Tracking #	Bottle Order Control #
Accutest Quote BS8/2010-41	Accutest Job # D38193

D38193

[illegible]

D38193: Chain of Custody

Page 1 of 5

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D38193

Client: olsson associates

Immediate Client Services Action Required: Yes

Date / Time Received: 8/30/2012 11:40:00 AM

Delivery Method:
Project: Knight property

No. Coolers:
Airbill #'s: HDCO

Cooler Security
Y or N
Y or N

- | | |
|--|--|
| 1. Custody Seals Present: <input checked="" type="checkbox"/> <input type="checkbox"/> | 3. COC Present: <input checked="" type="checkbox"/> <input type="checkbox"/> |
| 2. Custody Seals Intact: <input checked="" type="checkbox"/> <input type="checkbox"/> | 4. Smpl Dates/Time OK <input checked="" type="checkbox"/> <input type="checkbox"/> |

Cooler Temperature
Y or N

- | | |
|---|--------------|
| 1. Temp criteria achieved: <input checked="" type="checkbox"/> <input type="checkbox"/> | Infrared gun |
| 2. Cooler temp verification: | Ice (bag) |
| 3. Cooler media: | |

Quality Control Preservation
Y
N
N/A

- | | |
|---|-------------------------------------|
| 1. Trip Blank present / cooler: <input type="checkbox"/> <input type="checkbox"/> | |
| 2. Trip Blank listed on COC: <input type="checkbox"/> <input type="checkbox"/> | |
| 3. Samples preserved properly: <input checked="" type="checkbox"/> <input type="checkbox"/> | |
| 4. VOCs headspace free: <input type="checkbox"/> <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Comments

TPO4 bottle received; not on COC.

Sample Integrity - Documentation
Y or N

- | | |
|---|--|
| 1. Sample labels present on bottles: <input checked="" type="checkbox"/> <input type="checkbox"/> | |
| 2. Container labeling complete: <input checked="" type="checkbox"/> <input type="checkbox"/> | |
| 3. Sample container label / COC agree: <input checked="" type="checkbox"/> <input type="checkbox"/> | |

Sample Integrity - Condition
Y or N

- | | |
|---|--|
| 1. Sample rec'd within HT: <input checked="" type="checkbox"/> <input type="checkbox"/> | |
| 2. All containers accounted for: <input checked="" type="checkbox"/> <input type="checkbox"/> | |
| 3. Condition of sample: Intact | |

Sample Integrity - Instructions
Y N N/A

- | | |
|---|-------------------------------------|
| 1. Analysis requested is clear: <input checked="" type="checkbox"/> <input type="checkbox"/> | |
| 2. Bottles received for unspecified tests: <input type="checkbox"/> <input checked="" type="checkbox"/> | |
| 3. Sufficient volume rec'd for analysis: <input checked="" type="checkbox"/> <input type="checkbox"/> | |
| 4. Compositing instructions clear: <input type="checkbox"/> <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 5. Filtering instructions clear: <input type="checkbox"/> <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Accutest Job Number: D38193

CSR: Renea Jackson

Response Date

8/30/2012

Response: Tim Dobransky was notified of the missing TPO4 bottles. He advised that he filled all the bottles provided, indicating we did not provide the bottles. Please proceed without the TPO4. Thank you.

4.1
4

D38193: Chain of Custody
Page 3 of 5



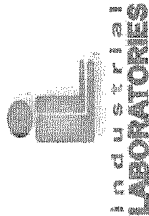
CHAIN OF CUSTODY

4036 Youngfield St., Wheat Ridge, CO 80033
303-425-6021 FAX: 303-425-6854Accutest Job #: D38193X
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, CO			State CO			Zip 80033			City Wheat Ridge, CO									State CO			Zip 80033		
Send Report to: Any questions contact:			Andrew Fluegel Shea Greiner			Contact: Sample Management																	
Phone/Fax #:			(303) 425-6021; (303) 425-6854			Phone: (303) 287-9691																	
Field ID / Point of Collection			Date		Time		Matrix	# of bottles	Preservation					HPC	Comments								
D38193X -1			8/29/12		2:55 PM		AQ	1	HCL	NaOH	HNO3	H2SO4	None	X									
-2					1:55 PM		AQ	1						X									
-3					1:00 PM		AQ	1						X									
-4					2:25 PM		AQ	1						X									
-5					12:25 PM		AQ	1						X									
-6					11:25 AM		AQ	1						X									
Turnaround Information			Data Deliverable Information										Comments / Remarks										
<input checked="" type="checkbox"/> 10 Business Day Standard <input type="checkbox"/> Other _____ (Days)			Approved By: _____			<input type="checkbox"/> Commercial "A" <input type="checkbox"/> PDF <input type="checkbox"/> Commercial "B" <input type="checkbox"/> Compact Disk Deliverable <input type="checkbox"/> Commercial "BN" <input type="checkbox"/> Electronic Delivery: _____ <input type="checkbox"/> Reduced Tier 1 <input type="checkbox"/> State Forms <input type="checkbox"/> Full Tier 1 <input type="checkbox"/> Other (Specify) _____					Please use Colorado regulations and RLs.												
10 Day Turnaround Hardcopy, RUSH is FAX Data unless previously approved.			Sample Custody must be documented below each time samples change possession, including courier delivery.										For Subcontract Laboratory Use Only										
Relinquished by: 1			Date & Time:			Received By: 1			Date & Time:			Seal #:		Headspace: Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>									
Relinquished by: 2			Date & Time:			Received By: 2			Date & Time:			Preserved where applicable: <input type="checkbox"/>											
Relinquished by: 3			Date & Time:			Received By: 3			Date & Time:			Temperature °C _____		On Ice <input type="checkbox"/>									

D38193: Chain of Custody

Page 4 of 5



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

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

Wheat Ridge CO 80033

Attn: Andrew Fluegel

TEST REPORT

ACCUTEST - M

Date Received: 8/30/2012

Date Reported: 9/4/2012

PO Number: D38193X

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

Lab No.	Sample Description	Test Method	Result	Units	MDL	Analysis Date/By
120830013-01A	D38193X-1, 8/29/12, 2:55pm	* Heterotrophic Plate Count	360000	CFU/mL		RJ 8/30/2012
		SM 9215B				
120830013-02A	D38193X-2, 8/29/12, 1:55pm	* Heterotrophic Plate Count	5600	CFU/mL		RJ 8/30/2012
		SM 9215B				
120830013-03A	D38193X-3, 8/29/12, 1:00pm	* Heterotrophic Plate Count	14000	CFU/mL		RJ 8/30/2012
		SM 9215B				
120830013-04A	D38193X-4, 8/29/12, 2:25pm	* Heterotrophic Plate Count	3800	CFU/mL		RJ 8/30/2012
		SM 9215B				
120830013-05A	D38193X-5, 8/29/12, 12:25pm	* Heterotrophic Plate Count	63000	CFU/mL		RJ 8/30/2012
		SM 9215B				
120830013-06A	D38193X-6, 8/29/12, 11:25am	* Heterotrophic Plate Count	820000	CFU/mL		RJ 8/30/2012
		SM 9215B				

* = Scope Analysis

= Subcontracted Analysis

MDL = Method Detection Limit

ND = Not Detected at the Method Detection Limit

Page: 1 of 1

Department Manager

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D38193: Chain of Custody

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GC/MS Semi-volatiles

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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: D38193
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP6563-MB	1G109471.D	1	09/05/12	SM	09/04/12	OP6563	E1G787

The QC reported here applies to the following samples:

Method: SW846 8270C

D38193-1, D38193-2, D38193-3, D38193-4, D38193-5, D38193-6

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.0	0.50	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	
50-32-8	Benzo(a)pyrene	ND	5.0	0.50	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	0.50	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	0.50	ug/l	
207-08-9	Benzo(k)fluoranthene	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	0.50	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
4165-60-0	Nitrobenzene-d5	73% 10-130%
321-60-8	2-Fluorobiphenyl	74% 10-130%
1718-51-0	Terphenyl-d14	98% 13-130%

Blank Spike Summary

Page 1 of 1

Job Number: D38193
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP6563-BS	1G109472.D	1	09/05/12	SM	09/04/12	OP6563	E1G787

The QC reported here applies to the following samples:

Method: SW846 8270C

D38193-1, D38193-2, D38193-3, D38193-4, D38193-5, D38193-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	39.5	79	40-130
208-96-8	Acenaphthylene	50	39.8	80	41-130
120-12-7	Anthracene	50	46.9	94	45-130
56-55-3	Benzo(a)anthracene	50	45.2	90	43-136
50-32-8	Benzo(a)pyrene	50	65.7	131	40-132
205-99-2	Benzo(b)fluoranthene	50	70.1	140	38-147
191-24-2	Benzo(g,h,i)perylene	50	62.4	125	33-136
207-08-9	Benzo(k)fluoranthene	50	66.9	134	41-140
218-01-9	Chrysene	50	46.4	93	42-130
53-70-3	Dibenzo(a,h)anthracene	50	62.8	126	35-139
206-44-0	Fluoranthene	50	48.9	98	39-139
86-73-7	Fluorene	50	42.4	85	44-130
193-39-5	Indeno(1,2,3-cd)pyrene	50	63.3	127	29-140
90-12-0	1-Methylnaphthalene	50	34.7	69	31-130
91-57-6	2-Methylnaphthalene	50	34.1	68	32-130
91-20-3	Naphthalene	50	34.2	68	30-130
85-01-8	Phenanthrene	50	45.9	92	40-130
129-00-0	Pyrene	50	47.0	94	42-131

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	77%	10-130%
321-60-8	2-Fluorobiphenyl	80%	10-130%
1718-51-0	Terphenyl-d14	93%	13-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D38193
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP6563-MS	1G109473.D	1	09/05/12	SM	09/04/12	OP6563	E1G787
OP6563-MSD	1G109474.D	1	09/05/12	SM	09/04/12	OP6563	E1G787
D38294-2	1G109475.D	1	09/05/12	SM	09/04/12	OP6563	E1G787

The QC reported here applies to the following samples:

Method: SW846 8270C

D38193-1, D38193-2, D38193-3, D38193-4, D38193-5, D38193-6

CAS No.	Compound	D38294-2 ug/l	Spike Q	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND	50	39.9	80	35.7	71	11	10-174/30
208-96-8	Acenaphthylene	ND	50	39.8	80	36.0	72	10	41-130/30
120-12-7	Anthracene	ND	50	46.1	92	44.6	89	3	39-130/30
56-55-3	Benzo(a)anthracene	ND	50	44.5	89	43.1	86	3	43-136/30
50-32-8	Benzo(a)pyrene	ND	50	64.9	130	62.5	125	4	10-181/30
205-99-2	Benzo(b)fluoranthene	ND	50	60.8	122	62.2	124	2	38-147/30
191-24-2	Benzo(g,h,i)perylene	ND	50	62.6	125	59.5	119	5	33-136/30
207-08-9	Benzo(k)fluoranthene	ND	50	76.5	153* a	70.5	141* a	8	41-140/30
218-01-9	Chrysene	ND	50	46.2	92	44.4	89	4	41-130/30
53-70-3	Dibenzo(a,h)anthracene	ND	50	62.3	125	59.7	119	4	35-139/30
206-44-0	Fluoranthene	ND	50	47.8	96	46.9	94	2	39-139/30
86-73-7	Fluorene	ND	50	42.3	85	39.3	79	7	15-162/30
193-39-5	Indeno(1,2,3-cd)pyrene	ND	50	62.7	125	60.1	120	4	10-188/30
90-12-0	1-Methylnaphthalene	ND	50	33.4	67	29.3	59	13	31-130/30
91-57-6	2-Methylnaphthalene	ND	50	32.5	65	28.1	56	15	24-132/30
91-20-3	Naphthalene	ND	50	31.1	62	25.8	52	19	25-130/30
85-01-8	Phenanthrene	ND	50	45.2	90	44.2	88	2	33-135/30
129-00-0	Pyrene	ND	50	45.4	91	44.2	88	3	30-143/30

CAS No.	Surrogate Recoveries	MS	MSD	D38294-2	Limits
4165-60-0	Nitrobenzene-d5	68%	59%	52%	10-130%
321-60-8	2-Fluorobiphenyl	78%	70%	56%	10-130%
1718-51-0	Terphenyl-d14	89%	84%	86%	13-130%

(a) Outside control limits due to possible matrix interference.

* = 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

Page 1 of 1

Job Number: D38193
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB952-MB	GB17324.D	1	08/31/12	SK	n/a	n/a	GGB952

The QC reported here applies to the following samples:

Method: SW846 8015B

D38193-1, D38193-2, D38193-3, D38193-4, D38193-5, D38193-6

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	0.20	0.10	mg/l	

CAS No.	Surrogate Recoveries	Limits
120-82-1	1,2,4-Trichlorobenzene	89% 60-140%

Method Blank Summary

Page 1 of 1

Job Number: D38193
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GTB952-MB	TB17324.D	1	08/31/12	SK	n/a	n/a	GTB952

The QC reported here applies to the following samples:

Method: SW846 8021B

D38193-2, D38193-3, D38193-4, D38193-5, D38193-6

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	91% 60-140%

Method Blank Summary

Page 1 of 1

Job Number: D38193
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GTB957-MB	TB17428.D	1	09/07/12	SK	n/a	n/a	GTB957

The QC reported here applies to the following samples:

Method: SW846 8021B

D38193-1

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	93% 60-140%

Blank Spike Summary

Page 1 of 1

Job Number: D38193
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB952-BS	GB17325.D	1	08/31/12	SK	n/a	n/a	GGB952

The QC reported here applies to the following samples:

Method: SW846 8015B

D38193-1, D38193-2, D38193-3, D38193-4, D38193-5, D38193-6

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
	TPH-GRO (C6-C10)	2.2	2.59	118	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	98%	60-140%

* = Outside of Control Limits.

Blank Spike Summary

Page 1 of 1

Job Number: D38193
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GTB952-BS	TB17325.D	1	08/31/12	SK	n/a	n/a	GTB952

The QC reported here applies to the following samples:

Method: SW846 8021B

D38193-2, D38193-3, D38193-4, D38193-5, D38193-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	27.2	29.3	108	70-130
100-41-4	Ethylbenzene	45.6	47.6	104	70-130
108-88-3	Toluene	212	209	99	70-130
1330-20-7	Xylenes (total)	216	234	108	68-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	97%	60-140%

* = Outside of Control Limits.

Blank Spike Summary

Page 1 of 1

Job Number: D38193
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GTB957-BS	TB17429.D	1	09/07/12	SK	n/a	n/a	GTB957

The QC reported here applies to the following samples:

Method: SW846 8021B

D38193-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	27.2	28.6	105	70-130
100-41-4	Ethylbenzene	45.6	46.6	102	70-130
108-88-3	Toluene	212	204	96	70-130
1330-20-7	Xylenes (total)	216	229	106	68-130

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

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D38193
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D38193-2MS	GB17327.D	1	08/31/12	SK	n/a	n/a	GGB952
D38193-2MSD	GB17328.D	1	08/31/12	SK	n/a	n/a	GGB952
D38193-2	GB17326.D	1	08/31/12	SK	n/a	n/a	GGB952

The QC reported here applies to the following samples:

Method: SW846 8015B

D38193-1, D38193-2, D38193-3, D38193-4, D38193-5, D38193-6

CAS No.	Compound	D38193-2 mg/l	Spike Q	MS mg/l	MS %	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	ND	2.2	2.58	117	2.57	117	0	61-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D38193-2	Limits
120-82-1	1,2,4-Trichlorobenzene	98%	101%	90%	60-140%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D38193
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D38193-2MS	TB17327.D	1	08/31/12	SK	n/a	n/a	GTB952
D38193-2MSD	TB17328.D	1	08/31/12	SK	n/a	n/a	GTB952
D38193-2	TB17326.D	1	08/31/12	SK	n/a	n/a	GTB952

The QC reported here applies to the following samples:

Method: SW846 8021B

D38193-2, D38193-3, D38193-4, D38193-5, D38193-6

CAS No.	Compound	D38193-2 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	27.2	29.4	108	29.4	108	0	67-130/30
100-41-4	Ethylbenzene	ND	45.6	47.8	105	47.7	105	0	62-130/30
108-88-3	Toluene	ND	212	210	99	209	99	0	66-130/30
1330-20-7	Xylenes (total)	ND	216	235	109	234	108	0	61-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D38193-2	Limits
120-82-1	1,2,4-Trichlorobenzene	98%	98%	91%	60-140%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D38193
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D38193-1MS	TB17434.D	5	09/07/12	SK	n/a	n/a	GTB957
D38193-1MSD	TB17435.D	5	09/07/12	SK	n/a	n/a	GTB957
D38193-1	TB17433.D	5	09/07/12	SK	n/a	n/a	GTB957

The QC reported here applies to the following samples:

Method: SW846 8021B

D38193-1

CAS No.	Compound	D38193-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	15.9		136	155	102	156	103	1	67-130/30
100-41-4	Ethylbenzene	65.9		228	287	97	290	98	1	62-130/30
108-88-3	Toluene	7.2	J	1060	996	93	1000	94	0	66-130/30
1330-20-7	Xylenes (total)	517		1080	1550	96	1560	97	1	61-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D38193-1	Limits
120-82-1	1,2,4-Trichlorobenzene	101%	104%	96%	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: D38193
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP6557-MB	FD17056.D	1	09/04/12	AW	09/04/12	OP6557	GFD878

The QC reported here applies to the following samples:

Method: SW846-8015B

D38193-1, D38193-2, D38193-3, D38193-4, D38193-5, D38193-6

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	0.40	0.26	mg/l	

CAS No.	Surrogate Recoveries	Limits
84-15-1	o-Terphenyl	74% 25-146%

Blank Spike Summary

Page 1 of 1

Job Number: D38193
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP6557-BS	FD17058.D	1	09/04/12	AW	09/04/12	OP6557	GFD878

The QC reported here applies to the following samples:

Method: SW846-8015B

D38193-1, D38193-2, D38193-3, D38193-4, D38193-5, D38193-6

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
	TPH-DRO (C10-C28)	20	18.9	95	49-130

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	98%	25-146%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D38193
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP6557-MS	FD17060.D	1	09/04/12	AW	09/04/12	OP6557	GFD878
OP6557-MSD	FD17062.D	1	09/04/12	AW	09/04/12	OP6557	GFD878
D38294-1	FD17064.D	1	09/04/12	AW	09/04/12	OP6557	GFD878

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

D38193-1, D38193-2, D38193-3, D38193-4, D38193-5, D38193-6

CAS No.	Compound	D38294-1 mg/l	Spike Q	MS mg/l	MS %	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH-DRO (C10-C28)	ND	20	17.3	87	16.0	80	8	47-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D38294-1	Limits
84-15-1	o-Terphenyl	91%	84%	74%	25-146%

* = 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: D38193
Account: CORCCOGJ - Olsson Associates
Project: Knight Property

QC Batch ID: MP8301
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 09/05/12

Metal	RL	IDL	MDL	MB raw	final
Aluminum	100	21	25		
Antimony	30	3.6	3.6		
Arsenic	25	5.4	8.4		
Barium	10	.8	1.8		
Beryllium	10	1.3	3.1		
Boron	50	4.3	4.4		
Cadmium	10	.6	.59		
Calcium	400	8.4	16	8.7	<400
Chromium	10	.3	.56		
Cobalt	5.0	.4	.42		
Copper	10	1.2	3		
Iron	70	1.9	20	-1.1	<70
Lead	50	2.4	2.9		
Lithium	2.0	2.8			
Magnesium	200	22	22	-8.7	<200
Manganese	5.0	1.2	1.2	-0.60	<5.0
Molybdenum	10	2.1	2.1		
Nickel	30	.5	.57		
Phosphorus	100	14	59		
Potassium	1000	150	150	-20	<1000
Selenium	50	6.1	11	2.3	<50
Silicon	50	6.5			
Silver	30	.5	.98		
Sodium	400	21	98	-33	<400
Strontium	5.0	.2	1.5		
Thallium	10	2.9	8.6		
Tin	50	12			
Titanium	10	.1			
Uranium	50	4.6	4.6		
Vanadium	10	.3	.48		
Zinc	30	.8	2.4		

Associated samples MP8301: D38193-1, D38193-2, D38193-3, D38193-4, D38193-5, D38193-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D38193
Account: CORCCOGJ - Olsson Associates
Project: Knight Property

QC Batch ID: MP8301
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

(anr) Analyte not requested

8.1.1

8

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D38193
 Account: CORCCOGJ - Olsson Associates
 Project: Knight Property

QC Batch ID: MP8301
 Matrix Type: AQUEOUS

Methods: SW846 6010C
 Units: ug/l

Prep Date: 09/05/12

Metal	D38274-1 Original MS		SpikeLot ICPALL2	% Rec	QC Limits
Aluminum	anr				
Antimony	anr				
Arsenic	anr				
Barium	anr				
Beryllium	anr				
Boron					
Cadmium	anr				
Calcium	15600	41500	25000	103.6	75-125
Chromium	anr				
Cobalt	anr				
Copper	anr				
Iron	7910	13300	5000	107.8	75-125
Lead	anr				
Lithium					
Magnesium	2940	29200	25000	105.0	75-125
Manganese	880	1350	500	94.0	75-125
Molybdenum	anr				
Nickel	anr				
Phosphorus					
Potassium	1180	29300	25000	112.5	75-125
Selenium	14.8	1050	1000	103.5	75-125
Silicon					
Silver	anr				
Sodium	6880	35000	25000	112.5	75-125
Strontium					
Thallium	anr				
Tin					
Titanium					
Uranium					
Vanadium	anr				
Zinc	anr				

Associated samples MP8301: D38193-1, D38193-2, D38193-3, D38193-4, D38193-5, D38193-6

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D38193
Account: CORCCOGJ - Olsson Associates
Project: Knight Property

QC Batch ID: MP8301
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

8.1.2

8

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D38193
Account: CORCCOGJ - Olsson Associates
Project: Knight Property

QC Batch ID: MP8301
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 09/05/12

Metal	D38274-1 Original	MSD	Spikelet ICPALL2	% Rec	MSD RPD	QC Limit
Aluminum	anr					
Antimony	anr					
Arsenic	anr					
Barium	anr					
Beryllium	anr					
Boron						
Cadmium	anr					
Calcium	15600	42200	25000	106.4	1.7	20
Chromium	anr					
Cobalt	anr					
Copper	anr					
Iron	7910	13300	5000	107.8	0.0	20
Lead	anr					
Lithium						
Magnesium	2940	28700	25000	103.0	1.7	20
Manganese	880	1380	500	100.0	2.2	20
Molybdenum	anr					
Nickel	anr					
Phosphorus						
Potassium	1180	28800	25000	110.5	1.7	20
Selenium	14.8	1060	1000	104.5	0.9	20
Silicon						
Silver	anr					
Sodium	6880	34800	25000	111.7	0.6	20
Strontium						
Thallium	anr					
Tin						
Titanium						
Uranium						
Vanadium	anr					
Zinc	anr					

Associated samples MP8301: D38193-1, D38193-2, D38193-3, D38193-4, D38193-5, D38193-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D38193
Account: CORCCOGJ - Olsson Associates
Project: Knight Property

QC Batch ID: MP8301
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

8.1.2

8

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D38193
Account: CORCCOGJ - Olsson Associates
Project: Knight Property

QC Batch ID: MP8301
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 09/05/12

Metal	BSP Result	Spikelot ICPALL2	% Rec	QC Limits
Aluminum	anr			
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Boron				
Cadmium	anr			
Calcium	25900	25000	103.6	80-120
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	5270	5000	105.4	80-120
Lead	anr			
Lithium				
Magnesium	25700	25000	102.8	80-120
Manganese	484	500	96.8	80-120
Molybdenum	anr			
Nickel	anr			
Phosphorus				
Potassium	27300	25000	109.2	80-120
Selenium	1030	1000	103.0	80-120
Silicon				
Silver	anr			
Sodium	27700	25000	110.8	80-120
Strontium				
Thallium	anr			
Tin				
Titanium				
Uranium				
Vanadium	anr			
Zinc	anr			

Associated samples MP8301: D38193-1, D38193-2, D38193-3, D38193-4, D38193-5, D38193-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D38193
Account: CORCCOGJ - Olsson Associates
Project: Knight Property

QC Batch ID: MP8301
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

(anr) Analyte not requested

8.1.3

8

SERIAL DILUTION RESULTS SUMMARY

Login Number: D38193
Account: CORCCOGJ - Olsson Associates
Project: Knight Property

QC Batch ID: MP8301
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 09/05/12

Metal	D38274-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum	anr			
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Boron				
Cadmium	anr			
Calcium	15600	16600	6.0	0-10
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	7720	8320	5.2	0-10
Lead	anr			
Lithium				
Magnesium	2880	3070	4.7	0-10
Manganese	841	917	4.3	0-10
Molybdenum	anr			
Nickel	anr			
Phosphorus				
Potassium	1180	1430	21.1 (a)	0-10
Selenium	14.8	0.00	100.0(a)	0-10
Silicon				
Silver	anr			
Sodium	6880	7030	2.2	0-10
Strontium				
Thallium	anr			
Tin				
Titanium				
Uranium				
Vanadium	anr			
Zinc	anr			

Associated samples MP8301: D38193-1, D38193-2, D38193-3, D38193-4, D38193-5, D38193-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

SERIAL DILUTION RESULTS SUMMARY

Login Number: D38193
Account: CORCCOGJ - Olsson Associates
Project: Knight Property

QC Batch ID: MP8301
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

(anr) Analyte not requested

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

8.1.4

8

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: D38193
Account: CORCCOGJ - Olsson Associates
Project: Knight Property

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Alkalinity, Bicarbonate as CaC	GN16556	5.0	0.0	mg/l	100	97.0	97.0	90-110%
Alkalinity, Bicarbonate as CaC	GN16567	5.0	0.0	mg/l	100	101	100.5	90-110%
Alkalinity, Carbonate	GN16557	5.0	0.0	mg/l	100	97.0	97.0	80-120%
Alkalinity, Carbonate	GN16568	5.0	0.0	mg/l	100	101	100.5	80-120%
Alkalinity, Total as CaCO3	GN16555	5.0	0.0	mg/l	100	97.0	97.0	90-110%
Alkalinity, Total as CaCO3	GN16565	5.0	0.0	mg/l	100	101	100.5	90-110%
BOD, 5 Day	GP8085/GN16612	10	0.0	mg/l	198	191	96.2	85-115%
Bromide	GP8092/GN16591	0.050	0.0	mg/l	20	20.0	100.0	90-110%
Chemical Oxygen Demand	GP8112/GN16635	10	0.0	mg/l	100	104	103.9	80-120%
Chloride	GP8092/GN16591	0.50	0.0	mg/l	20	20.2	101.0	90-110%
Nitrogen, Nitrate	GP8092/GN16591	0.010	0.0	mg/l	4.52	4.39	97.2	90-110%
Nitrogen, Nitrite	GP8092/GN16591	0.0040	0.0	mg/l	6.09	6.63	108.9	90-110%
Phosphate, Ortho	GP8092/GN16591	0.065	0.0	mg/l	9.78	9.82	100.4	90-110%
Sulfate	GP8092/GN16591	0.50	0.0	mg/l	30	29.5	98.3	90-110%
Total Organic Carbon	GP8142/GN16684	1.0	0.0	mg/l	8.82	8.60	97.5	90-110%
pH	GN16551			su	8.00	7.98	99.8	99.3-100.7%
pH	GN16551			su	8.00	7.98	99.8	99.3-100.7%

Associated Samples:

Batch GP8085: D38193-1, D38193-2, D38193-3, D38193-4, D38193-5, D38193-6
Batch GP8092: D38193-1, D38193-2, D38193-3, D38193-4, D38193-5, D38193-6
Batch GP8112: D38193-1, D38193-2, D38193-3, D38193-4, D38193-5, D38193-6
Batch GP8142: D38193-1, D38193-2, D38193-3, D38193-4, D38193-5, D38193-6
Batch GN16551: D38193-1, D38193-2, D38193-3, D38193-4, D38193-5, D38193-6
Batch GN16555: D38193-1, D38193-2, D38193-3
Batch GN16556: D38193-1, D38193-2, D38193-3
Batch GN16557: D38193-1, D38193-2, D38193-3
Batch GN16565: D38193-4, D38193-5, D38193-6
Batch GN16567: D38193-4, D38193-5, D38193-6
Batch GN16568: D38193-4, D38193-5, D38193-6
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D38193
Account: CORCCOGJ - Olsson Associates
Project: Knight Property

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Alkalinity, Total as CaCO3	GN16555	D38123-1	mg/l	125	125	0.1	0-20%
Alkalinity, Total as CaCO3	GN16565	D38206-2	mg/l	16.7	16.5	1.2	0-20%
BOD, 5 Day	GP8085/GN16612	D38193-1	mg/l	21.0	22.7	7.8	0-20%
Chemical Oxygen Demand	GP8112/GN16635	D38120-1	mg/l	8.5	7.9	7.7	0-20%
Total Organic Carbon	GP8142/GN16684	D38193-1	mg/l	18.5	17.9	3.3	0-20%

Associated Samples:

Batch GP8085: D38193-1, D38193-2, D38193-3, D38193-4, D38193-5, D38193-6

Batch GP8112: D38193-1, D38193-2, D38193-3, D38193-4, D38193-5, D38193-6

Batch GP8142: D38193-1, D38193-2, D38193-3, D38193-4, D38193-5, D38193-6

Batch GN16555: D38193-1, D38193-2, D38193-3

Batch GN16565: D38193-4, D38193-5, D38193-6

(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D38193
Account: CORCCOGJ - Olsson Associates
Project: Knight Property

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Alkalinity, Total as CaCO ₃	GN16555	D38123-1	mg/l	125	100	221	96.2	80-120%
Alkalinity, Total as CaCO ₃	GN16565	D38206-2	mg/l	16.7	100	114	97.0	80-120%
Bromide	GP8092/GN16591	D38193-4	mg/l	0.19	5	5.0	96.2	80-120%
Chemical Oxygen Demand	GP8112/GN16635	D38120-1	mg/l	8.5	40	43.9	88.6	70-130%
Chloride	GP8092/GN16591	D38193-4	mg/l	13.1	20	32.6	97.5	80-120%
Nitrogen, Nitrate	GP8092/GN16591	D38193-4	mg/l	0.017	2.83	2.8	98.5	80-120%
Nitrogen, Nitrite	GP8092/GN16591	D38193-4	mg/l	0.0080	0.609	0.58	93.9	80-120%
Phosphate, Ortho	GP8092/GN16591	D38193-4	mg/l	0.0	1.63	1.7	104.3	80-120%
Sulfate	GP8092/GN16591	D38193-4	mg/l	13.0	20	32.6	98.0	80-120%
Total Organic Carbon	GP8142/GN16684	D38071-1	mg/l	5.5	10	15.9	104.0	80-120%

Associated Samples:

Batch GP8092: D38193-1, D38193-2, D38193-3, D38193-4, D38193-5, D38193-6

Batch GP8112: D38193-1, D38193-2, D38193-3, D38193-4, D38193-5, D38193-6

Batch GP8142: D38193-1, D38193-2, D38193-3, D38193-4, D38193-5, D38193-6

Batch GN16555: D38193-1, D38193-2, D38193-3

Batch GN16565: D38193-4, D38193-5, D38193-6

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

9.3

9

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D38193
Account: CORCCOGJ - Olsson Associates
Project: Knight Property

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Alkalinity, Total as CaCO ₃	GN16555	D38123-1	mg/l	125	100	222	0.5	20%
Alkalinity, Total as CaCO ₃	GN16565	D38206-2	mg/l	16.7	100	116	1.7	20%
Bromide	GP8092/GN16591	D38193-4	mg/l	0.19	5	5.1	2.0	20%
Chemical Oxygen Demand	GP8112/GN16635	D38120-1	mg/l	8.5	40	49.6	14.9	20%
Chloride	GP8092/GN16591	D38193-4	mg/l	13.1	20	33.2	1.8	20%
Nitrogen, Nitrate	GP8092/GN16591	D38193-4	mg/l	0.017	2.83	2.7	3.6	20%
Nitrogen, Nitrite	GP8092/GN16591	D38193-4	mg/l	0.0080	0.609	0.63	8.3	20%
Phosphate, Ortho	GP8092/GN16591	D38193-4	mg/l	0.0	1.63	1.7	0.0	20%
Sulfate	GP8092/GN16591	D38193-4	mg/l	13.0	20	32.9	0.9	20%
Total Organic Carbon	GP8142/GN16684	D38071-1	mg/l	5.5	10	15.8	0.6	20%

Associated Samples:

Batch GP8092: D38193-1, D38193-2, D38193-3, D38193-4, D38193-5, D38193-6

Batch GP8112: D38193-1, D38193-2, D38193-3, D38193-4, D38193-5, D38193-6

Batch GP8142: D38193-1, D38193-2, D38193-3, D38193-4, D38193-5, D38193-6

Batch GN16555: D38193-1, D38193-2, D38193-3

Batch GN16565: D38193-4, D38193-5, D38193-6

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

9.4

9

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D34360
Account: CORCCOGJ - Olsson Associates
Project: Knight Property

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Bromide	GP7175/GN14901	D34355-1	mg/l	0.37	2.5	3.0	0.0	20%
Bromide	GP7189/GN14922	D34409-2	mg/l	0.17	2.5	2.7	0.0	20%
Bromide	GP7189/GN14922	D34409-2	mg/l	0.0	2.5	2.7	0.0	20%
Chemical Oxygen Demand	GP7177/GN14912	D34052-8	mg/l	0.0	40	38.0	5.0	20%
Chloride	GP7175/GN14901	D34355-1	mg/l	34.1	50	87.6	0.3	20%
Chloride	GP7189/GN14922	D34409-2	mg/l	37.2	200	245	2.1	20%
Chloride	GP7189/GN14922	D34409-2	mg/l	40.2	200	245	2.1	20%
Fluoride	GP7175/GN14901	D34355-1	mg/l	1.7	2.5	4.3	0.0	20%
Fluoride	GP7175/GN14901	D34355-1	mg/l	1.9	2.5	4.3	0.0	20%
Nitrogen, Nitrate	GP7175/GN14901	D34355-1	mg/l	0.0	2.83	2.9	0.0	20%
Nitrogen, Nitrate	GP7189/GN14922	D34409-2	mg/l	10.8	11.3	22.4	1.3	20%
Nitrogen, Nitrite	GP7175/GN14901	D34355-1	mg/l	0.0	0.305	0.28	0.0	20%
Nitrogen, Nitrite	GP7189/GN14922	D34409-2	mg/l	0.0	0.305	0.29	7.1	20%
Phosphate, Ortho	GP7175/GN14901	D34355-1	mg/l	0.31	0.815	0.97	1.0	20%
Phosphate, Ortho	GP7189/GN14922	D34409-2	mg/l	4.8	0.815	5.7	0.0	20%
Phosphate, Ortho	GP7189/GN14922	D34409-2	mg/l	8.2	0.815	5.7	0.0	20%
Phosphorus, Total	GP7251/GN15037	D34380-1	mg/l	0.0090	0.4	0.320	14.5	20%
Sulfate	GP7175/GN14901	D34355-1	mg/l	0.0	10	9.9	0.0	20%
Total Organic Carbon	GP7178/GN14924	D34273-1	mg/l	3.5	10	14.2	3.6	20%
Total Organic Carbon	GP7213/GN14972	D34427-1	mg/l	2.0	10	12.4	0.8	20%

Associated Samples:

Batch GN14944: D34360-1, D34360-2, D34360-3, D34360-4, D34360-5
Batch GP7175: D34360-1, D34360-2, D34360-3, D34360-4, D34360-5
Batch GP7177: D34360-1, D34360-2, D34360-3, D34360-4, D34360-5
Batch GP7178: D34360-1, D34360-2
Batch GP7189: D34360-1, D34360-2, D34360-3, D34360-4, D34360-5
Batch GP7213: D34360-3, D34360-4, D34360-5
Batch GP7251: D34360-1, D34360-2, D34360-3, D34360-4, D34360-5

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits



12/04/12

Technical Report for

Olsson Associates

Knight Property

011.1712.100.100001

Accutest Job Number: D41204

Sampling Date: 11/26/12

Report to:

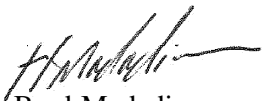
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tdobransky@oaconsulting.com

ATTN: Tim Dobransky

Total number of pages in report: **78**



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


Brad Madadian
Laboratory Director

Client Service contact: Renea Jackson 303-425-6021

Certifications: CO, ID, NE, NM, ND (R-027) (PW), UT (NELAP CO00049), TX (T104704511-12-1)

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Test results relate only to samples analyzed.

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Sample Summary

Olsson Associates

Job No: D41204

Knight Property
Project No: 011.1712.100.100001

Sample Number	Collected		Matrix Code	Type	Client Sample ID
	Date	Time By			
D41204-1	11/26/12	14:00 TLC	11/27/12	AQ Ground Water	MW-1
D41204-2	11/26/12	13:20 TLC	11/27/12	AQ Ground Water	MW-2A
D41204-3	11/26/12	12:25 TLC	11/27/12	AQ Ground Water	MW-3
D41204-4	11/26/12	14:30 TLC	11/27/12	AQ Ground Water	MW-4
D41204-5	11/26/12	11:35 TLC	11/27/12	AQ Ground Water	MW-5
D41204-6	11/26/12	11:00 TLC	11/27/12	AQ Ground Water	MW-6

Summary of Hits

Job Number: D41204
Account: Olsson Associates
Project: Knight Property
Collected: 11/26/12

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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D41204-1 MW-1

1-Methylnaphthalene	0.50 J	4.8	0.48	ug/l	SW846 8270C
TPH-GRO (C6-C10)	2.01	1.0	0.50	mg/l	SW846 8015B
Benzene	7.6	5.0	1.0	ug/l	SW846 8021B
Ethylbenzene	37.7	10	5.0	ug/l	SW846 8021B
Xylenes (total)	421	10	10	ug/l	SW846 8021B
TPH-DRO (C10-C28)	0.518	0.19	0.17	mg/l	SW846-8015B
Calcium	147000	400		ug/l	SW846 6010C
Iron	19500	70		ug/l	SW846 6010C
Magnesium	63600	200		ug/l	SW846 6010C
Manganese	748	5.0		ug/l	SW846 6010C
Potassium	6150	1000		ug/l	SW846 6010C
Sodium	80100	400		ug/l	SW846 6010C
Alkalinity, Bicarbonate as CaCO3	746	5.0		mg/l	SM20 2320B
Alkalinity, Total as CaCO3	746	5.0		mg/l	SM20 2320B
BOD, 5 Day	28.4	10		mg/l	SM20 5210B (2001)
Chemical Oxygen Demand	21.7	10		mg/l	SM20 5220D
Chloride	39.2	1.0		mg/l	EPA 300.0/SW846 9056
Nitrogen, Nitrite	0.015	0.0080		mg/l	EPA 300.0/SW846 9056
Phosphorus, Total	2.0	0.050		mg/l	HACH8190/SM4500P-B/E
Sulfate	13.4	1.0		mg/l	EPA 300.0/SW846 9056
Total Organic Carbon	10.2	1.0		mg/l	SM20 5310B
pH	7.48			su	SM20 4500H B+ /9040C

D41204-2 MW-2A

Calcium	208000	400		ug/l	SW846 6010C
Iron	33500	70		ug/l	SW846 6010C
Magnesium	81600	200		ug/l	SW846 6010C
Manganese	3370	5.0		ug/l	SW846 6010C
Potassium	8600	1000		ug/l	SW846 6010C
Sodium	97800	400		ug/l	SW846 6010C
Alkalinity, Bicarbonate as CaCO3	299	5.0		mg/l	SM20 2320B
Alkalinity, Total as CaCO3	299	5.0		mg/l	SM20 2320B
Bromide	0.11	0.10		mg/l	EPA 300.0/SW846 9056
Chloride	206	5.0		mg/l	EPA 300.0/SW846 9056
Nitrogen, Nitrate	0.031	0.020		mg/l	EPA 300.0/SW846 9056
Phosphorus, Total	1.4	0.050		mg/l	HACH8190/SM4500P-B/E
Sulfate	155	5.0		mg/l	EPA 300.0/SW846 9056
Total Organic Carbon	4.9	1.0		mg/l	SM20 5310B
pH	7.49			su	SM20 4500H B+ /9040C

Summary of Hits

Job Number: D41204
Account: Olsson Associates
Project: Knight Property
Collected: 11/26/12

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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D41204-3

MW-3

Calcium	218000	400			ug/l	SW846 6010C
Iron	35400	70			ug/l	SW846 6010C
Magnesium	75100	200			ug/l	SW846 6010C
Manganese	2310	5.0			ug/l	SW846 6010C
Potassium	9530	1000			ug/l	SW846 6010C
Sodium	93900	400			ug/l	SW846 6010C
Alkalinity, Bicarbonate as CaCO3	309	5.0			mg/l	SM20 2320B
Alkalinity, Total as CaCO3	309	5.0			mg/l	SM20 2320B
Chloride	210	5.0			mg/l	EPA 300.0/SW846 9056
Nitrogen, Nitrate	0.034	0.020			mg/l	EPA 300.0/SW846 9056
Nitrogen, Nitrite	0.015	0.0080			mg/l	EPA 300.0/SW846 9056
Phosphorus, Total	1.7	0.050			mg/l	HACH8190/SM4500P-B/E
Sulfate	137	5.0			mg/l	EPA 300.0/SW846 9056
Total Organic Carbon	4.4	1.0			mg/l	SM20 5310B
pH	7.46				su	SM20 4500H B+ /9040C

D41204-4

MW-4

Calcium	238000	400			ug/l	SW846 6010C
Iron	47500	70			ug/l	SW846 6010C
Magnesium	104000	200			ug/l	SW846 6010C
Manganese	2160	5.0			ug/l	SW846 6010C
Potassium	12200	1000			ug/l	SW846 6010C
Sodium	110000	400			ug/l	SW846 6010C
Alkalinity, Bicarbonate as CaCO3	618	5.0			mg/l	SM20 2320B
Alkalinity, Total as CaCO3	618	5.0			mg/l	SM20 2320B
Bromide	0.26	0.10			mg/l	EPA 300.0/SW846 9056
Chemical Oxygen Demand	20.3	10			mg/l	SM20 5220D
Chloride	16.4	1.0			mg/l	EPA 300.0/SW846 9056
Phosphorus, Total	1.2	0.050			mg/l	HACH8190/SM4500P-B/E
Sulfate	110	2.5			mg/l	EPA 300.0/SW846 9056
Total Organic Carbon	10.3	1.0			mg/l	SM20 5310B
pH	7.69				su	SM20 4500H B+ /9040C

D41204-5

MW-5

Calcium	333000	400			ug/l	SW846 6010C
Iron	83100	70			ug/l	SW846 6010C
Magnesium	108000	200			ug/l	SW846 6010C
Manganese	2810	5.0			ug/l	SW846 6010C
Potassium	12600	1000			ug/l	SW846 6010C
Sodium	85100	400			ug/l	SW846 6010C
Alkalinity, Bicarbonate as CaCO3	452	5.0			mg/l	SM20 2320B

Summary of Hits

Job Number: D41204
Account: Olsson Associates
Project: Knight Property
Collected: 11/26/12

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Alkalinity, Total as CaCO ₃		452	5.0		mg/l	SM20 2320B
Bromide		0.10	0.10		mg/l	EPA 300.0/SW846 9056
Chemical Oxygen Demand		10.8	10		mg/l	SM20 5220D
Chloride		198	5.0		mg/l	EPA 300.0/SW846 9056
Nitrogen, Nitrite		0.011	0.0080		mg/l	EPA 300.0/SW846 9056
Phosphorus, Total		1.8	0.050		mg/l	HACH8190/SM4500P-B/E
Sulfate		142	2.5		mg/l	EPA 300.0/SW846 9056
Total Organic Carbon		5.2	1.0		mg/l	SM20 5310B
pH		7.54			su	SM20 4500H B+ /9040C

D41204-6 MW-6

TPH-DRO (C10-C28)	0.347	0.19	0.17	mg/l	SW846-8015B
Calcium	229000	400		ug/l	SW846 6010C
Iron	46600	70		ug/l	SW846 6010C
Magnesium	92700	200		ug/l	SW846 6010C
Manganese	3950	5.0		ug/l	SW846 6010C
Potassium	9820	1000		ug/l	SW846 6010C
Sodium	82000	400		ug/l	SW846 6010C
Alkalinity, Bicarbonate as CaCO ₃	356	5.0		mg/l	SM20 2320B
Alkalinity, Total as CaCO ₃	356	5.0		mg/l	SM20 2320B
Bromide	0.10	0.10		mg/l	EPA 300.0/SW846 9056
Chemical Oxygen Demand	12.8	10		mg/l	SM20 5220D
Chloride	172	5.0		mg/l	EPA 300.0/SW846 9056
Nitrogen, Nitrate	0.056	0.050		mg/l	EPA 300.0/SW846 9056
Phosphorus, Total	1.6	0.050		mg/l	HACH8190/SM4500P-B/E
Sulfate	114	2.5		mg/l	EPA 300.0/SW846 9056
Total Organic Carbon	5.2	1.0		mg/l	SM20 5310B
pH	7.57			su	SM20 4500H B+ /9040C

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW-1	Date Sampled:	11/26/12
Lab Sample ID:	D41204-1	Date Received:	11/27/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	Knight Property		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G110681.D	1	11/28/12	DC	11/28/12	OP7021	E1G863
Run #2							

Run #	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	0.48	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	0.48	ug/l	
90-12-0	1-Methylnaphthalene	0.50	4.8	0.48	ug/l	J
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	54%		14-130%
321-60-8	2-Fluorobiphenyl	51%		16-130%
1718-51-0	Terphenyl-d14	39%		10-145%

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:	D41204-1	Date Sampled: 11/26/12
Matrix:	AQ - Ground Water	Date Received: 11/27/12
Method:	SW846 8015B	Percent Solids: n/a
Project:	Knight Property	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA17690.D	5	11/28/12	SK	n/a	n/a	GGA1002
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	2.01	1.0	0.50	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	99%		60-140%		

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	Date Sampled:	11/26/12
Lab Sample ID:	D41204-1	Date Received:	11/27/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8021B		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA17690.D	5	11/28/12	SK	n/a	n/a	GTA1002
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	7.6	5.0	1.0	ug/l	
108-88-3	Toluene	ND	10	5.0	ug/l	
100-41-4	Ethylbenzene	37.7	10	5.0	ug/l	
1330-20-7	Xylenes (total)	421	10	10	ug/l	

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

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	Date Sampled:	11/26/12
Lab Sample ID:	D41204-1	Date Received:	11/27/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846-8015B SW846 3510C		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD20027.D	1	11/29/12	AV	11/28/12	OP7019	GFD1003
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)	0.518	0.19	0.17	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	66%		20-140%		

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	Date Sampled: 11/26/12
Lab Sample ID: D41204-1	Date Received: 11/27/12
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: Knight Property	

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	147000	400	ug/l	1	11/28/12	11/28/12 JM	SW846 6010C ¹	SW846 3010A ²
Iron	19500	70	ug/l	1	11/28/12	11/28/12 JM	SW846 6010C ¹	SW846 3010A ²
Magnesium	63600	200	ug/l	1	11/28/12	11/28/12 JM	SW846 6010C ¹	SW846 3010A ²
Manganese	748	5.0	ug/l	1	11/28/12	11/28/12 JM	SW846 6010C ¹	SW846 3010A ²
Potassium	6150	1000	ug/l	1	11/28/12	11/28/12 JM	SW846 6010C ¹	SW846 3010A ²
Selenium	< 50	50	ug/l	1	11/28/12	11/28/12 JM	SW846 6010C ¹	SW846 3010A ²
Sodium	80100	400	ug/l	1	11/28/12	11/28/12 JM	SW846 6010C ¹	SW846 3010A ²

(1) Instrument QC Batch: MA3028

(2) Prep QC Batch: MP8952

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-1
Lab Sample ID: D41204-1
Matrix: AQ - Ground Water
Project: Knight Property

Date Sampled: 11/26/12
Date Received: 11/27/12
Percent Solids: n/a

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate as CaC	746	5.0	mg/l	1	11/28/12	JD	SM20 2320B
Alkalinity, Carbonate	< 5.0	5.0	mg/l	1	11/28/12	JD	SM20 2320B
Alkalinity, Total as CaCO ₃	746	5.0	mg/l	1	11/28/12	JD	SM20 2320B
BOD, 5 Day	28.4	10	mg/l	1	11/28/12 08:00	CT	SM20 5210B (2001)
Bromide ^a	< 0.25	0.25	mg/l	5	11/27/12 20:16	JML	EPA 300.0/SW846 9056
Chemical Oxygen Demand	21.7	10	mg/l	1	12/03/12	JD	SM20 5220D
Chloride	39.2	1.0	mg/l	2	11/27/12 14:48	JML	EPA 300.0/SW846 9056
Nitrogen, Nitrate ^a	< 0.050	0.050	mg/l	5	11/27/12 20:16	JML	EPA 300.0/SW846 9056
Nitrogen, Nitrite	0.015	0.0080	mg/l	2	11/27/12 14:48	JML	EPA 300.0/SW846 9056
Phosphate, Ortho ^a	< 0.13	0.13	mg/l	2	11/27/12 14:48	JML	EPA 300.0/SW846 9056
Phosphorus, Total	2.0	0.050	mg/l	5	11/30/12	KB	HACH8190/SM4500P-B/E
Sulfate	13.4	1.0	mg/l	2	11/27/12 14:48	JML	EPA 300.0/SW846 9056
Total Organic Carbon	10.2	1.0	mg/l	1	11/28/12 14:23	JML	SM20 5310B
pH	7.48		su	1	11/27/12 15:40	JK	SM20 4500H B+ /9040C

(a) Elevated detection limit due to matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-2A	Date Sampled:	11/26/12
Lab Sample ID:	D41204-2	Date Received:	11/27/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	Knight Property		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G110682.D	1	11/28/12	DC	11/28/12	OP7021	E1G863
Run #2							

Run #	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	0.48	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	0.48	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	88%		14-130%
321-60-8	2-Fluorobiphenyl	82%		16-130%
1718-51-0	Terphenyl-d14	63%		10-145%

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:	D41204-2	Date Sampled: 11/26/12
Matrix:	AQ - Ground Water	Date Received: 11/27/12
Method:	SW846 8015B	Percent Solids: n/a
Project:	Knight Property	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA17693.D	1	11/28/12	SK	n/a	n/a	GGA1002
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	0.10	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	99%		60-140%		

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:	11/26/12
Lab Sample ID:	D41204-2	Date Received:	11/27/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8021B		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA17693.D	1	11/28/12	SK	n/a	n/a	GTA1002
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%

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:	11/26/12
Lab Sample ID:	D41204-2	Date Received:	11/27/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846-8015B SW846 3510C		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD20029.D	1	11/29/12	AV	11/28/12	OP7019	GFD1003
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	67%		20-140%		

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: 11/26/12
Lab Sample ID: D41204-2	Date Received: 11/27/12
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: Knight Property	

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	208000	400	ug/l	1	11/28/12	11/28/12 JM	SW846 6010C ¹	SW846 3010A ²
Iron	33500	70	ug/l	1	11/28/12	11/28/12 JM	SW846 6010C ¹	SW846 3010A ²
Magnesium	81600	200	ug/l	1	11/28/12	11/28/12 JM	SW846 6010C ¹	SW846 3010A ²
Manganese	3370	5.0	ug/l	1	11/28/12	11/28/12 JM	SW846 6010C ¹	SW846 3010A ²
Potassium	8600	1000	ug/l	1	11/28/12	11/28/12 JM	SW846 6010C ¹	SW846 3010A ²
Selenium	< 50	50	ug/l	1	11/28/12	11/28/12 JM	SW846 6010C ¹	SW846 3010A ²
Sodium	97800	400	ug/l	1	11/28/12	11/28/12 JM	SW846 6010C ¹	SW846 3010A ²

(1) Instrument QC Batch: MA3028

(2) Prep QC Batch: MP8952

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-2A
Lab Sample ID: D41204-2
Matrix: AQ - Ground Water
Project: Knight Property

Date Sampled: 11/26/12
Date Received: 11/27/12
Percent Solids: n/a

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate as CaC	299	5.0	mg/l	1	11/28/12	JD	SM20 2320B
Alkalinity, Carbonate	< 5.0	5.0	mg/l	1	11/28/12	JD	SM20 2320B
Alkalinity, Total as CaCO ₃	299	5.0	mg/l	1	11/28/12	JD	SM20 2320B
BOD, 5 Day	< 10	10	mg/l	1	11/28/12 08:00	CT	SM20 5210B (2001)
Bromide	0.11	0.10	mg/l	2	11/27/12 15:03	JML	EPA 300.0/SW846 9056
Chemical Oxygen Demand	< 10	10	mg/l	1	12/03/12	JD	SM20 5220D
Chloride	206	5.0	mg/l	10	11/27/12 20:31	JML	EPA 300.0/SW846 9056
Nitrogen, Nitrate	0.031	0.020	mg/l	2	11/27/12 15:03	JML	EPA 300.0/SW846 9056
Nitrogen, Nitrite ^a	< 0.0080	0.0080	mg/l	2	11/27/12 15:03	JML	EPA 300.0/SW846 9056
Phosphate, Ortho ^a	< 0.13	0.13	mg/l	2	11/27/12 15:03	JML	EPA 300.0/SW846 9056
Phosphorus, Total	1.4	0.050	mg/l	5	11/30/12	KB	HACH8190/SM4500P-B/E
Sulfate	155	5.0	mg/l	10	11/27/12 20:31	JML	EPA 300.0/SW846 9056
Total Organic Carbon	4.9	1.0	mg/l	1	11/28/12 15:38	JML	SM20 5310B
pH	7.49		su	1	11/27/12 15:40	JK	SM20 4500H B+ /9040C

(a) Elevated detection limit due to matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-3	Date Sampled:	11/26/12
Lab Sample ID:	D41204-3	Date Received:	11/27/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G110683.D	1	11/28/12	DC	11/28/12	OP7021	E1G863
Run #2							

	Initial Volume	Final Volume
Run #1	1030 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.9	0.49	ug/l	
208-96-8	Acenaphthylene	ND	4.9	0.49	ug/l	
120-12-7	Anthracene	ND	4.9	0.49	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.9	0.49	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.9	0.49	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.9	0.49	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.9	0.49	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.9	0.49	ug/l	
218-01-9	Chrysene	ND	4.9	0.49	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.9	0.49	ug/l	
206-44-0	Fluoranthene	ND	4.9	0.49	ug/l	
86-73-7	Fluorene	ND	4.9	0.49	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.9	0.49	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.9	0.49	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.9	0.49	ug/l	
91-20-3	Naphthalene	ND	4.9	0.49	ug/l	
85-01-8	Phenanthrene	ND	4.9	0.49	ug/l	
129-00-0	Pyrene	ND	4.9	0.49	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	75%		14-130%
321-60-8	2-Fluorobiphenyl	70%		16-130%
1718-51-0	Terphenyl-d14	61%		10-145%

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:	11/26/12
Lab Sample ID:	D41204-3	Date Received:	11/27/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8015B		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA17695.D	1	11/28/12	SK	n/a	n/a	GGA1002
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	0.10	mg/l	

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

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:	11/26/12
Lab Sample ID:	D41204-3	Date Received:	11/27/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8021B		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA17695.D	1	11/28/12	SK	n/a	n/a	GTA1002
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%

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:	11/26/12
Lab Sample ID:	D41204-3	Date Received:	11/27/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846-8015B SW846 3510C		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD20031.D	1	11/29/12	AV	11/28/12	OP7019	GFD1003
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	81%		20-140%		

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: 11/26/12
Lab Sample ID: D41204-3	Date Received: 11/27/12
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: Knight Property	

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	218000	400	ug/l	1	11/28/12	11/28/12 JM	SW846 6010C ¹	SW846 3010A ²
Iron	35400	70	ug/l	1	11/28/12	11/28/12 JM	SW846 6010C ¹	SW846 3010A ²
Magnesium	75100	200	ug/l	1	11/28/12	11/28/12 JM	SW846 6010C ¹	SW846 3010A ²
Manganese	2310	5.0	ug/l	1	11/28/12	11/28/12 JM	SW846 6010C ¹	SW846 3010A ²
Potassium	9530	1000	ug/l	1	11/28/12	11/28/12 JM	SW846 6010C ¹	SW846 3010A ²
Selenium	< 50	50	ug/l	1	11/28/12	11/28/12 JM	SW846 6010C ¹	SW846 3010A ²
Sodium	93900	400	ug/l	1	11/28/12	11/28/12 JM	SW846 6010C ¹	SW846 3010A ²

(1) Instrument QC Batch: MA3028

(2) Prep QC Batch: MP8952

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-3
Lab Sample ID: D41204-3
Matrix: AQ - Ground Water
Project: Knight Property

Date Sampled: 11/26/12
Date Received: 11/27/12
Percent Solids: n/a

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate as CaC	309	5.0	mg/l	1	11/28/12	JD	SM20 2320B
Alkalinity, Carbonate	< 5.0	5.0	mg/l	1	11/28/12	JD	SM20 2320B
Alkalinity, Total as CaCO ₃	309	5.0	mg/l	1	11/28/12	JD	SM20 2320B
BOD, 5 Day	< 10	10	mg/l	1	11/28/12 08:00	CT	SM20 5210B (2001)
Bromide ^a	< 0.10	0.10	mg/l	2	11/27/12 15:32	JML	EPA 300.0/SW846 9056
Chemical Oxygen Demand	< 10	10	mg/l	1	12/03/12	JD	SM20 5220D
Chloride	210	5.0	mg/l	10	11/27/12 20:45	JML	EPA 300.0/SW846 9056
Nitrogen, Nitrate	0.034	0.020	mg/l	2	11/27/12 15:32	JML	EPA 300.0/SW846 9056
Nitrogen, Nitrite	0.015	0.0080	mg/l	2	11/27/12 15:32	JML	EPA 300.0/SW846 9056
Phosphate, Ortho ^a	< 0.13	0.13	mg/l	2	11/27/12 15:32	JML	EPA 300.0/SW846 9056
Phosphorus, Total	1.7	0.050	mg/l	5	11/30/12	KB	HACH8190/SM4500P-B/E
Sulfate	137	5.0	mg/l	10	11/27/12 20:45	JML	EPA 300.0/SW846 9056
Total Organic Carbon	4.4	1.0	mg/l	1	11/28/12 15:49	JML	SM20 5310B
pH	7.46		su	1	11/27/12 15:40	JK	SM20 4500H B+ /9040C

(a) Elevated detection limit due to matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-4	Date Sampled:	11/26/12
Lab Sample ID:	D41204-4	Date Received:	11/27/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	Knight Property		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G110684.D	1	11/28/12	DC	11/28/12	OP7021	E1G863
Run #2							

Run #	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	0.48	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	0.48	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	83%		14-130%
321-60-8	2-Fluorobiphenyl	78%		16-130%
1718-51-0	Terphenyl-d14	65%		10-145%

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:	D41204-4	Date Sampled: 11/26/12
Matrix:	AQ - Ground Water	Date Received: 11/27/12
Method:	SW846 8015B	Percent Solids: n/a
Project:	Knight Property	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA17696.D	1	11/28/12	SK	n/a	n/a	GGA1002
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	0.10	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	98%		60-140%		

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:	11/26/12
Lab Sample ID:	D41204-4	Date Received:	11/27/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8021B		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA17696.D	1	11/28/12	SK	n/a	n/a	GTA1002
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%

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:	D41204-4	Date Sampled: 11/26/12
Matrix:	AQ - Ground Water	Date Received: 11/27/12
Method:	SW846-8015B SW846 3510C	Percent Solids: n/a
Project:	Knight Property	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD20033.D	1	11/29/12	AV	11/28/12	OP7019	GFD1003
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	71%		20-140%		

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**Lab Sample ID:** D41204-4**Matrix:** AQ - Ground Water**Project:** Knight Property**Date Sampled:** 11/26/12**Date Received:** 11/27/12**Percent Solids:** n/a**Total Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	238000	400	ug/l	1	11/28/12	11/28/12 JM	SW846 6010C ¹	SW846 3010A ²
Iron	47500	70	ug/l	1	11/28/12	11/28/12 JM	SW846 6010C ¹	SW846 3010A ²
Magnesium	104000	200	ug/l	1	11/28/12	11/28/12 JM	SW846 6010C ¹	SW846 3010A ²
Manganese	2160	5.0	ug/l	1	11/28/12	11/28/12 JM	SW846 6010C ¹	SW846 3010A ²
Potassium	12200	1000	ug/l	1	11/28/12	11/28/12 JM	SW846 6010C ¹	SW846 3010A ²
Selenium	< 50	50	ug/l	1	11/28/12	11/28/12 JM	SW846 6010C ¹	SW846 3010A ²
Sodium	110000	400	ug/l	1	11/28/12	11/28/12 JM	SW846 6010C ¹	SW846 3010A ²

(1) Instrument QC Batch: MA3028

(2) Prep QC Batch: MP8952

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-4
Lab Sample ID: D41204-4
Matrix: AQ - Ground Water
Project: Knight Property

Date Sampled: 11/26/12
Date Received: 11/27/12
Percent Solids: n/a

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate as CaC	618	5.0	mg/l	1	11/28/12	JD	SM20 2320B
Alkalinity, Carbonate	< 5.0	5.0	mg/l	1	11/28/12	JD	SM20 2320B
Alkalinity, Total as CaCO ₃	618	5.0	mg/l	1	11/28/12	JD	SM20 2320B
BOD, 5 Day	< 10	10	mg/l	1	11/28/12 08:00	CT	SM20 5210B (2001)
Bromide	0.26	0.10	mg/l	2	11/27/12 15:47	JML	EPA 300.0/SW846 9056
Chemical Oxygen Demand	20.3	10	mg/l	1	12/03/12	JD	SM20 5220D
Chloride	16.4	1.0	mg/l	2	11/27/12 15:47	JML	EPA 300.0/SW846 9056
Nitrogen, Nitrate ^a	< 0.050	0.050	mg/l	5	11/27/12 21:00	JML	EPA 300.0/SW846 9056
Nitrogen, Nitrite ^a	< 0.0080	0.0080	mg/l	2	11/27/12 15:47	JML	EPA 300.0/SW846 9056
Phosphate, Ortho ^a	< 0.13	0.13	mg/l	2	11/27/12 15:47	JML	EPA 300.0/SW846 9056
Phosphorus, Total	1.2	0.050	mg/l	5	11/30/12	KB	HACH8190/SM4500P-B/E
Sulfate	110	2.5	mg/l	5	11/27/12 21:00	JML	EPA 300.0/SW846 9056
Total Organic Carbon	10.3	1.0	mg/l	1	11/28/12 16:01	JML	SM20 5310B
pH	7.69		su	1	11/27/12 15:40	JK	SM20 4500H B+ /9040C

(a) Elevated detection limit due to matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-5	Date Sampled:	11/26/12
Lab Sample ID:	D41204-5	Date Received:	11/27/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	Knight Property		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G110685.D	1	11/28/12	DC	11/28/12	OP7021	E1G863
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	0.47	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	0.47	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.7	0.47	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.7	0.47	ug/l	
91-20-3	Naphthalene	ND	4.7	0.47	ug/l	
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	73%		14-130%
321-60-8	2-Fluorobiphenyl	67%		16-130%
1718-51-0	Terphenyl-d14	56%		10-145%

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:	11/26/12
Lab Sample ID:	D41204-5	Date Received:	11/27/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8015B		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA17697.D	1	11/28/12	SK	n/a	n/a	GGA1002
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	0.10	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	99%		60-140%		

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:	11/26/12
Lab Sample ID:	D41204-5	Date Received:	11/27/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8021B		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA17697.D	1	11/28/12	SK	n/a	n/a	GTA1002
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%

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:	11/26/12
Lab Sample ID:	D41204-5	Date Received:	11/27/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846-8015B SW846 3510C		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD20035.D	1	11/29/12	AV	11/28/12	OP7019	GFD1003
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	63%		20-140%		

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

Lab Sample ID: D41204-5

Matrix: AQ - Ground Water

Project: Knight Property

Date Sampled: 11/26/12

Date Received: 11/27/12

Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	333000	400	ug/l	1	11/28/12	11/28/12 JM	SW846 6010C ¹	SW846 3010A ²
Iron	83100	70	ug/l	1	11/28/12	11/28/12 JM	SW846 6010C ¹	SW846 3010A ²
Magnesium	108000	200	ug/l	1	11/28/12	11/28/12 JM	SW846 6010C ¹	SW846 3010A ²
Manganese	2810	5.0	ug/l	1	11/28/12	11/28/12 JM	SW846 6010C ¹	SW846 3010A ²
Potassium	12600	1000	ug/l	1	11/28/12	11/28/12 JM	SW846 6010C ¹	SW846 3010A ²
Selenium	< 50	50	ug/l	1	11/28/12	11/28/12 JM	SW846 6010C ¹	SW846 3010A ²
Sodium	85100	400	ug/l	1	11/28/12	11/28/12 JM	SW846 6010C ¹	SW846 3010A ²

(1) Instrument QC Batch: MA3028

(2) Prep QC Batch: MP8952

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-5
Lab Sample ID: D41204-5
Matrix: AQ - Ground Water
Project: Knight Property

Date Sampled: 11/26/12
Date Received: 11/27/12
Percent Solids: n/a

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate as CaC	452	5.0	mg/l	1	11/28/12	JD	SM20 2320B
Alkalinity, Carbonate	< 5.0	5.0	mg/l	1	11/28/12	JD	SM20 2320B
Alkalinity, Total as CaCO ₃	452	5.0	mg/l	1	11/28/12	JD	SM20 2320B
BOD, 5 Day	< 10	10	mg/l	1	11/28/12 08:00	CT	SM20 5210B (2001)
Bromide	0.10	0.10	mg/l	2	11/27/12 16:02	JML	EPA 300.0/SW846 9056
Chemical Oxygen Demand	10.8	10	mg/l	1	12/03/12	JD	SM20 5220D
Chloride	198	5.0	mg/l	10	11/27/12 21:15	JML	EPA 300.0/SW846 9056
Nitrogen, Nitrate ^a	< 0.050	0.050	mg/l	5	11/27/12 18:31	JML	EPA 300.0/SW846 9056
Nitrogen, Nitrite	0.011	0.0080	mg/l	2	11/27/12 16:02	JML	EPA 300.0/SW846 9056
Phosphate, Ortho ^a	< 0.13	0.13	mg/l	2	11/27/12 16:02	JML	EPA 300.0/SW846 9056
Phosphorus, Total	1.8	0.050	mg/l	5	11/30/12	KB	HACH8190/SM4500P-B/E
Sulfate	142	2.5	mg/l	5	11/27/12 18:31	JML	EPA 300.0/SW846 9056
Total Organic Carbon	5.2	1.0	mg/l	1	11/28/12 17:12	JML	SM20 5310B
pH	7.54		su	1	11/27/12 15:40	JK	SM20 4500H B+ /9040C

(a) Elevated detection limit due to matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-6	Date Sampled:	11/26/12
Lab Sample ID:	D41204-6	Date Received:	11/27/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G110686.D	1	11/28/12	DC	11/28/12	OP7021	E1G863
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	0.48	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	0.48	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%		14-130%
321-60-8	2-Fluorobiphenyl	55%		16-130%
1718-51-0	Terphenyl-d14	32%		10-145%

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:	11/26/12
Lab Sample ID:	D41204-6	Date Received:	11/27/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8015B		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA17713.D	1	11/29/12	SK	n/a	n/a	GGA1002
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	0.10	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	97%		60-140%		

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:	11/26/12
Lab Sample ID:	D41204-6	Date Received:	11/27/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8021B		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA17713.D	1	11/29/12	SK	n/a	n/a	GTA1002
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	98%		60-140%

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:	11/26/12
Lab Sample ID:	D41204-6	Date Received:	11/27/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846-8015B SW846 3510C		
Project:	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD20037.D	1	11/29/12	AV	11/28/12	OP7019	GFD1003
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)	0.347	0.19	0.17	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	53%		20-140%		

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: 11/26/12
Lab Sample ID: D41204-6	Date Received: 11/27/12
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: Knight Property	

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	229000	400	ug/l	1	11/28/12	11/28/12 JM	SW846 6010C ¹	SW846 3010A ²
Iron	46600	70	ug/l	1	11/28/12	11/28/12 JM	SW846 6010C ¹	SW846 3010A ²
Magnesium	92700	200	ug/l	1	11/28/12	11/28/12 JM	SW846 6010C ¹	SW846 3010A ²
Manganese	3950	5.0	ug/l	1	11/28/12	11/28/12 JM	SW846 6010C ¹	SW846 3010A ²
Potassium	9820	1000	ug/l	1	11/28/12	11/28/12 JM	SW846 6010C ¹	SW846 3010A ²
Selenium	< 50	50	ug/l	1	11/28/12	11/28/12 JM	SW846 6010C ¹	SW846 3010A ²
Sodium	82000	400	ug/l	1	11/28/12	11/28/12 JM	SW846 6010C ¹	SW846 3010A ²

(1) Instrument QC Batch: MA3028

(2) Prep QC Batch: MP8952

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-6
Lab Sample ID: D41204-6
Matrix: AQ - Ground Water
Project: Knight Property

Date Sampled: 11/26/12
Date Received: 11/27/12
Percent Solids: n/a

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate as CaC	356	5.0	mg/l	1	11/28/12	JD	SM20 2320B
Alkalinity, Carbonate	< 5.0	5.0	mg/l	1	11/28/12	JD	SM20 2320B
Alkalinity, Total as CaCO ₃	356	5.0	mg/l	1	11/28/12	JD	SM20 2320B
BOD, 5 Day	< 10	10	mg/l	1	11/28/12 08:00	CT	SM20 5210B (2001)
Bromide	0.10	0.10	mg/l	2	11/27/12 16:17	JML	EPA 300.0/SW846 9056
Chemical Oxygen Demand	12.8	10	mg/l	1	12/03/12	JD	SM20 5220D
Chloride	172	5.0	mg/l	10	11/27/12 21:30	JML	EPA 300.0/SW846 9056
Nitrogen, Nitrate	0.056	0.050	mg/l	5	11/27/12 18:46	JML	EPA 300.0/SW846 9056
Nitrogen, Nitrite ^a	< 0.0080	0.0080	mg/l	2	11/27/12 16:17	JML	EPA 300.0/SW846 9056
Phosphate, Ortho ^a	< 0.13	0.13	mg/l	2	11/27/12 16:17	JML	EPA 300.0/SW846 9056
Phosphorus, Total	1.6	0.050	mg/l	5	11/30/12	KB	HACH8190/SM4500P-B/E
Sulfate	114	2.5	mg/l	5	11/27/12 18:46	JML	EPA 300.0/SW846 9056
Total Organic Carbon	5.2	1.0	mg/l	1	11/28/12 17:23	JML	SM20 5310B
pH	7.57		su	1	11/27/12 15:40	JK	SM20 4500H B+ /9040C

(a) Elevated detection limit due to matrix interference.

RL = Reporting Limit

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody



FED-EX Tracking #	Bottle Order Control #
Accutest Quote BS8/2010-41	Accutest Job # DY1204

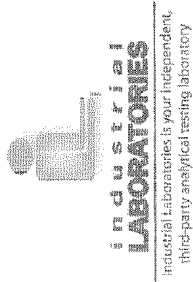
Page 1 of 3



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

Client Information			Subcontract Laboratory Information							Project No.: _____							
Name Accutest Mountain States (AMS)			Name Industrial Lab														
Address 4036 Youngfield St.			Address 4046 Youngfield St.														
City Wheat Ridge,	State CO	Zip 80033	City Wheat Ridge	State CO	Zip 80033												
Send Report to: Andrew Fluegel			Contact: Sample Management														
Any questions contact: Shea Greiner																	
Phone/Fax #: (303) 425-6021; (303) 425-6854			Phone: (303) 287-9691														
Field ID / Point of Collection		Collection			Matrix	# of bottles	Preservation					C H					Comments
		Date	Time				HCL	NaOH	HNCl ₃	H ₂ SO ₄	None						
D41204X -1	11/26/12	2:00 PM		AQ	1						X						
-2		1:20 PM		AQ	1						X						
-3		12:25 PM		AQ	1						X						
-4		2:30 PM		AQ	1						X						
-5		11:35 AM		AQ	1						X						
-6		11:00 AM		AQ	1						X						
Turnaround Information			Data Deliverable Information							Comments / Remarks							
<input checked="" type="checkbox"/> 10 Business Day Standard <input type="checkbox"/> Other _____ (Days)			Approved By: _____		<input type="checkbox"/> Commercial "A" <input type="checkbox"/> Commercial "B" <input type="checkbox"/> Commercial "BN" <input type="checkbox"/> Reduced Tier 1 <input type="checkbox"/> Full Tier 1		<input type="checkbox"/> PDF <input type="checkbox"/> Compact Disk Deliverable <input type="checkbox"/> Electronic Delivery: _____ <input type="checkbox"/> State Forms <input type="checkbox"/> Other (Specify) _____					Please use Colorado regulations and RLs.					
10 Day Turnaround Hardcopy, RUSH is FAX Data unless previously approved.																	
Sample Custody must be documented below each time samples change possession, including courier delivery.												For Subcontract Laboratory Use Only					
Relinquished by:		Date & Time:		Received By:		Date & Time:		Seal #:		Headspace:							
1				1		1				Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>							
2				2		2				Preserved where applicable: <input type="checkbox"/>							
3				3		3				Temperature °C _____ On Ice <input type="checkbox"/>							

Page 2 of 3



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

Wheat Ridge CO 80033

Attn: Shea Greiner

TEST REPORT

ACCUTEST - M

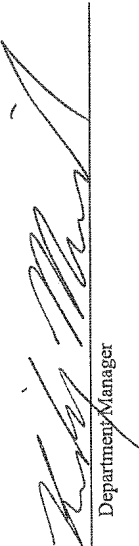
Date Received: 11/28/2012

Date Reported: 11/30/2012

PO Number: D41204X

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

Lab No.	Sample Description	Test Method	Result	Units	MDL	Analysis Date/By
121128007-01A	D41204X-1, 11/26/12, * Heterotrophic Plate Count 2:00pm	SM 9215B	150000	CFU/mL		RJ 11/28/201
121128007-02A	D41204X-2, 11/26/12, * Heterotrophic Plate Count 1:20pm	SM 9215B	8100	CFU/mL		RJ 11/28/201
121128007-03A	D41204X-3, 11/26/12, * Heterotrophic Plate Count 12:25pm	SM 9215B	12000	CFU/mL		RJ 11/28/201
121128007-04A	D41204X-4, 11/26/12, * Heterotrophic Plate Count 2:30pm	SM 9215B	13000	CFU/mL		RJ 11/28/201
121128007-05A	D41204X-5, 11/26/12, * Heterotrophic Plate Count 11:35am	SM 9215B	16000	CFU/mL		RJ 11/28/201
121128007-06A	D41204X-6, 11/26/12, * Heterotrophic Plate Count 11:00am	SM 9215B	420000	CFU/mL		RJ 11/28/201


Department Manager

* = Scope Analysis
= Subcontracted Analysis
MDL = Method Detection Limit
ND = Not Detected at the Method Detection Limit
Page: 1 of 1

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D41204: Chain of Custody
Page 3 of 3

GC/MS Semi-volatiles

5

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: D41204
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP7021-MB	1G110672.D	1	11/28/12	DC	11/28/12	OP7021	E1G863

The QC reported here applies to the following samples:

Method: SW846 8270C

D41204-1, D41204-2, D41204-3, D41204-4, D41204-5, D41204-6

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.0	0.50	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	0.50	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	61% 10-130%
4165-62-2	Phenol-d5	40% 10-130%
118-79-6	2,4,6-Tribromophenol	65% 16-130%
4165-60-0	Nitrobenzene-d5	86% 14-130%
321-60-8	2-Fluorobiphenyl	81% 16-130%
1718-51-0	Terphenyl-d14	92% 10-145%

Blank Spike Summary

Page 1 of 1

Job Number: D41204
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP7021-BS	1G110673.D	1	11/28/12	DC	11/28/12	OP7021	E1G863

The QC reported here applies to the following samples:

Method: SW846 8270C

D41204-1, D41204-2, D41204-3, D41204-4, D41204-5, D41204-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	41.9	84	53-130
208-96-8	Acenaphthylene	50	42.4	85	55-130
120-12-7	Anthracene	50	45.9	92	70-130
56-55-3	Benzo(a)anthracene	50	44.8	90	69-130
205-99-2	Benzo(b)fluoranthene	50	47.4	95	52-146
207-08-9	Benzo(k)fluoranthene	50	46.1	92	41-158
191-24-2	Benzo(g,h,i)perylene	50	44.1	88	53-140
50-32-8	Benzo(a)pyrene	50	46.8	94	55-140
218-01-9	Chrysene	50	44.0	88	70-130
53-70-3	Dibenzo(a,h)anthracene	50	46.0	92	51-143
206-44-0	Fluoranthene	50	42.9	86	70-130
86-73-7	Fluorene	50	43.7	87	58-130
193-39-5	Indeno(1,2,3-cd)pyrene	50	45.7	91	49-142
90-12-0	1-Methylnaphthalene	50	38.9	78	41-130
91-57-6	2-Methylnaphthalene	50	38.4	77	38-130
91-20-3	Naphthalene	50	37.1	74	39-130
85-01-8	Phenanthrene	50	45.1	90	70-130
129-00-0	Pyrene	50	48.2	96	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	57%	10-130%
4165-62-2	Phenol-d5	38%	10-130%
118-79-6	2,4,6-Tribromophenol	73%	16-130%
4165-60-0	Nitrobenzene-d5	83%	14-130%
321-60-8	2-Fluorobiphenyl	82%	16-130%
1718-51-0	Terphenyl-d14	89%	10-145%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D41204
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP7021-MS	1G110675.D	1	11/28/12	DC	11/28/12	OP7021	E1G863
OP7021-MSD	1G110676.D	1	11/28/12	DC	11/28/12	OP7021	E1G863
D41006-19	1G110674.D	1	11/28/12	DC	11/28/12	OP7021	E1G863

The QC reported here applies to the following samples:

Method: SW846 8270C

D41204-1, D41204-2, D41204-3, D41204-4, D41204-5, D41204-6

CAS No.	Compound	D41006-19 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND	50	34.3	69	34.4	69	0	38-130/30
208-96-8	Acenaphthylene	ND	50	33.8	68	34.4	69	2	39-130/30
120-12-7	Anthracene	ND	50	43.7	87	40.1	80	9	65-130/30
56-55-3	Benzo(a)anthracene	ND	50	43.0	86	39.1	78	10	62-130/30
205-99-2	Benzo(b)fluoranthene	ND	50	44.7	89	42.3	85	6	51-146/30
207-08-9	Benzo(k)fluoranthene	ND	50	45.9	92	40.1	80	13	41-158/30
191-24-2	Benzo(g,h,i)perylene	ND	50	42.4	85	38.3	77	10	51-140/30
50-32-8	Benzo(a)pyrene	ND	50	44.6	89	41.0	82	8	52-140/30
218-01-9	Chrysene	ND	50	42.9	86	38.8	78	10	69-130/30
53-70-3	Dibenzo(a,h)anthracene	ND	50	44.3	89	40.1	80	10	49-139/30
206-44-0	Fluoranthene	ND	50	41.5	83	37.7	75	10	70-130/30
86-73-7	Fluorene	ND	50	38.5	77	36.8	74	5	48-130/30
193-39-5	Indeno(1,2,3-cd)pyrene	ND	50	43.9	88	40.1	80	9	47-142/30
90-12-0	1-Methylnaphthalene	ND	50	30.3	61	29.9	60	1	28-130/30
91-57-6	2-Methylnaphthalene	ND	50	30.1	60	29.5	59	2	27-130/30
91-20-3	Naphthalene	ND	50	29.2	58	28.4	57	3	28-130/30
85-01-8	Phenanthrene	ND	50	42.8	86	39.4	79	8	63-130/30
129-00-0	Pyrene	ND	50	45.8	92	41.9	84	9	68-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D41006-19	Limits
367-12-4	2-Fluorophenol	37%	32%	28%	10-130%
4165-62-2	Phenol-d5	28%	26%	23%	10-130%
118-79-6	2,4,6-Tribromophenol	58%	45%	34%	16-130%
4165-60-0	Nitrobenzene-d5	63%	63%	63%	14-130%
321-60-8	2-Fluorobiphenyl	65%	65%	59%	16-130%
1718-51-0	Terphenyl-d14	87%	78%	86%	10-145%

* = 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

Page 1 of 1

Job Number: D41204
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGA1002-MB	GA17688.D	1	11/28/12	SK	n/a	n/a	GGA1002

The QC reported here applies to the following samples:

Method: SW846 8015B

D41204-1, D41204-2, D41204-3, D41204-4, D41204-5, D41204-6

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	0.20	0.10	mg/l	

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

Method Blank Summary

Page 1 of 1

Job Number: D41204
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GTA1002-MB	TA17688.D	1	11/28/12	SK	n/a	n/a	GTA1002

The QC reported here applies to the following samples:

Method: SW846 8021B

D41204-1, D41204-2, D41204-3, D41204-4, D41204-5, D41204-6

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%

Blank Spike Summary

Page 1 of 1

Job Number: D41204
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGA1002-BS	GA17689.D	1	11/28/12	SK	n/a	n/a	GGA1002

The QC reported here applies to the following samples:

Method: SW846 8015B

D41204-1, D41204-2, D41204-3, D41204-4, D41204-5, D41204-6

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
	TPH-GRO (C6-C10)	2.2	2.20	100	70-130

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

* = Outside of Control Limits.

Blank Spike Summary

Page 1 of 1

Job Number: D41204
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GTA1002-BS	TA17689.D	1	11/28/12	SK	n/a	n/a	GTA1002

The QC reported here applies to the following samples:

Method: SW846 8021B

D41204-1, D41204-2, D41204-3, D41204-4, D41204-5, D41204-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	27.2	23.5	86	70-130
100-41-4	Ethylbenzene	45.6	39.1	86	70-130
108-88-3	Toluene	212	178	84	70-130
1330-20-7	Xylenes (total)	216	203	94	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	105%	60-140%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D41204
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D41204-1MS	GA17691.D	5	11/28/12	SK	n/a	n/a	GGA1002
D41204-1MSD	GA17692.D	5	11/28/12	SK	n/a	n/a	GGA1002
D41204-1	GA17690.D	5	11/28/12	SK	n/a	n/a	GGA1002

The QC reported here applies to the following samples:

Method: SW846 8015B

D41204-1, D41204-2, D41204-3, D41204-4, D41204-5, D41204-6

CAS No.	Compound	D41204-1 mg/l	Spike Q	MS mg/l	MS %	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	2.01	11	12.8	98	12.4	94	3	60-145/30

CAS No.	Surrogate Recoveries	MS	MSD	D41204-1	Limits
120-82-1	1,2,4-Trichlorobenzene	106%	106%	99%	60-140%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D41204
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D41204-1MS	TA17691.D	5	11/28/12	SK	n/a	n/a	GTA1002
D41204-1MSD	TA17692.D	5	11/28/12	SK	n/a	n/a	GTA1002
D41204-1	TA17690.D	5	11/28/12	SK	n/a	n/a	GTA1002

The QC reported here applies to the following samples:

Method: SW846 8021B

D41204-1, D41204-2, D41204-3, D41204-4, D41204-5, D41204-6

CAS No.	Compound	D41204-1 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	7.6	136	125	86	122	84	2	55-133/30
100-41-4	Ethylbenzene	37.7	228	229	84	224	82	2	63-130/30
108-88-3	Toluene	ND	1060	886	84	865	82	2	70-130/30
1330-20-7	Xylenes (total)	421	1080	1400	91	1360	87	3	64-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D41204-1	Limits
120-82-1	1,2,4-Trichlorobenzene	105%	106%	101%	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: D41204
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP7019-MB	FD20017.D	1	11/28/12	AV	11/28/12	OP7019	GFD1003

The QC reported here applies to the following samples:

Method: SW846-8015B

D41204-1, D41204-2, D41204-3, D41204-4, D41204-5, D41204-6

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% 20-140%

Blank Spike Summary

Page 1 of 1

Job Number: D41204
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP7019-BS	FD20019.D	1	11/28/12	AV	11/28/12	OP7019	GFD1003

The QC reported here applies to the following samples:

Method: SW846-8015B

D41204-1, D41204-2, D41204-3, D41204-4, D41204-5, D41204-6

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
	TPH-DRO (C10-C28)	20	15.7	79	36-140

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	75%	20-140%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D41204
Account: CORCCOGJ Olsson Associates
Project: Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP7019-MS	FD20021.D	1	11/28/12	AV	11/28/12	OP7019	GFD1003
OP7019-MSD	FD20023.D	1	11/28/12	AV	11/28/12	OP7019	GFD1003
D41006-21	FD20025.D	1	11/29/12	AV	11/28/12	OP7019	GFD1003

The QC reported here applies to the following samples:

Method: SW846-8015B

D41204-1, D41204-2, D41204-3, D41204-4, D41204-5, D41204-6

CAS No.	Compound	D41006-21 mg/l	Spike Q	MS mg/l	MS %	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH-DRO (C10-C28)	ND	20	13.3	67	14.9	75	11	28-140/30

CAS No.	Surrogate Recoveries	MS	MSD	D41006-21	Limits
84-15-1	o-Terphenyl	72%	83%	58%	20-140%

* = 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: D41204
Account: CORCCOGJ - Olsson Associates
Project: Knight Property

QC Batch ID: MP8952
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 11/28/12

Metal	RL	IDL	MDL	MB raw	final
Aluminum	100	9.6	25		
Antimony	30	1.7	3.6		
Arsenic	25	4.4	8.4		
Barium	10	.1	1.8		
Beryllium	10	1.3	3.1		
Boron	50	1	4.4		
Cadmium	10	.6	.59		
Calcium	400	5.4	16	5.3	<400
Chromium	10	.3	.56		
Cobalt	5.0	.4	.42		
Copper	10	1.2	3		
Iron	70	1.2	20	1.8	<70
Lead	50	1.9	2.9		
Lithium	2.0	.5			
Magnesium	200	6.5	22	-1.8	<200
Manganese	5.0	1.2	1.2	0.0	<5.0
Molybdenum	10	2.1	2.1		
Nickel	30	.5	.57		
Phosphorus	100	14	59		
Potassium	1000	61	150	137	<1000
Selenium	50	4.8	11	-0.80	<50
Silicon	50	2.9			
Silver	30	.4	.98		
Sodium	400	5.9	98	45.3	<400
Strontium	5.0	.04	1.5		
Thallium	10	2.9	8.6		
Tin	50	12			
Titanium	10	.1			
Uranium	50	2.2	4.6		
Vanadium	10	.2	.48		
Zinc	30	.5	2.4		

Associated samples MP8952: D41204-1, D41204-2, D41204-3, D41204-4, D41204-5, D41204-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D41204
Account: CORCCOGJ - Olsson Associates
Project: Knight Property

QC Batch ID: MP8952
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

(anr) Analyte not requested

8.1.1

8

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D41204
 Account: CORCCOGJ - Olsson Associates
 Project: Knight Property

QC Batch ID: MP8952
 Matrix Type: AQUEOUS

Methods: SW846 6010C
 Units: ug/l

Prep Date: 11/28/12

Metal	D41204-1 Original MS	Spikelot ICPAL2	% Rec	QC Limits
Aluminum				
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Boron				
Cadmium	anr			
Calcium	147000	174000	25000	108.0 75-125
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	19500	24100	5000	92.0 75-125
Lead	anr			
Lithium				
Magnesium	63600	87500	25000	95.6 75-125
Manganese	748	1220	500	94.4 75-125
Molybdenum	anr			
Nickel	anr			
Phosphorus				
Potassium	6150	31200	25000	100.2 75-125
Selenium	0.0	757	1000	75.7 75-125
Silicon				
Silver	anr			
Sodium	80100	104000	25000	95.6 75-125
Strontium				
Thallium	anr			
Tin				
Titanium				
Uranium				
Vanadium	anr			
Zinc	anr			

Associated samples MP8952: D41204-1, D41204-2, D41204-3, D41204-4, D41204-5, D41204-6

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D41204
Account: CORCCOGJ - Olsson Associates
Project: Knight Property

QC Batch ID: MP8952
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

8.1.2

8

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D41204
Account: CORCCOGJ - Olsson Associates
Project: Knight Property

QC Batch ID: MP8952
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 11/28/12

Metal	D41204-1 Original	MSD	Spikelet ICPAL2	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony	anr					
Arsenic	anr					
Barium	anr					
Beryllium	anr					
Boron						
Cadmium	anr					
Calcium	147000	172000	25000	100.0	1.2	20
Chromium	anr					
Cobalt	anr					
Copper	anr					
Iron	19500	24200	5000	94.0	0.4	20
Lead	anr					
Lithium						
Magnesium	63600	87100	25000	94.0	0.5	20
Manganese	748	1220	500	94.4	0.0	20
Molybdenum	anr					
Nickel	anr					
Phosphorus						
Potassium	6150	31300	25000	100.6	0.3	20
Selenium	0.0	782	1000	78.2	3.2	20
Silicon						
Silver	anr					
Sodium	80100	104000	25000	95.6	0.0	20
Strontium						
Thallium	anr					
Tin						
Titanium						
Uranium						
Vanadium	anr					
Zinc	anr					

Associated samples MP8952: D41204-1, D41204-2, D41204-3, D41204-4, D41204-5, D41204-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D41204
Account: CORCCOGJ - Olsson Associates
Project: Knight Property

QC Batch ID: MP8952
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

8.1.2

8

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D41204
Account: CORCCOGJ - Olsson Associates
Project: Knight Property

QC Batch ID: MP8952
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 11/28/12

Metal	BSP Result	Spikelot ICPALL2	% Rec	QC Limits
Aluminum				
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Boron				
Cadmium	anr			
Calcium	26100	25000	104.4	80-120
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	5440	5000	108.8	80-120
Lead	anr			
Lithium				
Magnesium	24800	25000	99.2	80-120
Manganese	505	500	101.0	80-120
Molybdenum	anr			
Nickel	anr			
Phosphorus				
Potassium	25900	25000	103.6	80-120
Selenium	1070	1000	107.0	80-120
Silicon				
Silver	anr			
Sodium	25300	25000	101.2	80-120
Strontium				
Thallium	anr			
Tin				
Titanium				
Uranium				
Vanadium	anr			
Zinc	anr			

Associated samples MP8952: D41204-1, D41204-2, D41204-3, D41204-4, D41204-5, D41204-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D41204
Account: CORCCOGJ - Olsson Associates
Project: Knight Property

QC Batch ID: MP8952
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

(anr) Analyte not requested

8.1.3

8

SERIAL DILUTION RESULTS SUMMARY

Login Number: D41204
Account: CORCCOGJ - Olsson Associates
Project: Knight Property

QC Batch ID: MP8952
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 11/28/12

Metal	D41204-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Boron				
Cadmium	anr			
Calcium	147000	164000	11.7*(a)	0-10
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	19500	22000	13.2*(a)	0-10
Lead	anr			
Lithium				
Magnesium	63600	71700	12.7*(a)	0-10
Manganese	748	836	11.8*(a)	0-10
Molybdenum	anr			
Nickel	anr			
Phosphorus				
Potassium	6150	7040	14.6*(a)	0-10
Selenium	0.00	0.00	NC	0-10
Silicon				
Silver	anr			
Sodium	80100	93200	16.3*(a)	0-10
Strontium				
Thallium	anr			
Tin				
Titanium				
Uranium				
Vanadium	anr			
Zinc	anr			

Associated samples MP8952: D41204-1, D41204-2, D41204-3, D41204-4, D41204-5, D41204-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

SERIAL DILUTION RESULTS SUMMARY

Login Number: D41204
Account: CORCCOGJ - Olsson Associates
Project: Knight Property

QC Batch ID: MP8952
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

(anr) Analyte not requested
(a) Serial dilution indicates possible matrix interference.

8.1.4

8

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: D41204
Account: CORCCOGJ - Olsson Associates
Project: Knight Property

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Alkalinity, Bicarbonate as CaC	GN17841	5.0	2.0	mg/l	100	97.6	97.6	90-110%
Alkalinity, Carbonate	GN17843	5.0	0.0	mg/l	100	98	97.6	80-120%
Alkalinity, Total as CaCO3	GN17840	5.0	2.0	mg/l	100	97.6	97.6	90-110%
BOD, 5 Day	GP8768/GN17905	10	0.0	mg/l	198	196	99.0	85-115%
Bromide	GP8765/GN17837	0.050	0.0	mg/l	20	19.1	95.5	90-110%
Chemical Oxygen Demand	GP8801/GN17900	10	0.0	mg/l	100	91.5	91.5	80-120%
Chloride	GP8765/GN17837	0.50	0.29	mg/l	20	19.8	99.0	90-110%
Nitrogen, Nitrate	GP8765/GN17837	0.010	0.0	mg/l	4.52	4.31	95.4	90-110%
Nitrogen, Nitrite	GP8765/GN17837	0.0040	0.0	mg/l	6.09	5.86	96.2	90-110%
Phosphate, Ortho	GP8765/GN17837	0.065	0.0	mg/l	9.78	9.12	93.2	90-110%
Phosphorus, Total	GP8784/GN17883	0.010	0.0	mg/l	0.543	0.57	104.3	80-120%
Phosphorus, Total	GP8785/GN17884	0.010	0.0	mg/l	0.543	0.57	104.6	80-120%
Sulfate	GP8765/GN17837	0.50	0.0	mg/l	30	28.8	96.0	90-110%
Total Organic Carbon	GP8773/GN17852	1.0	0.0	mg/l	8.82	8.64	98.0	90-110%
pH	GN17828			su	8.00	8.00	100.0	99.3-100.7%

Associated Samples:

Batch GP8765: D41204-1, D41204-2, D41204-3, D41204-4, D41204-5, D41204-6
Batch GP8768: D41204-1, D41204-2, D41204-3, D41204-4, D41204-5, D41204-6
Batch GP8773: D41204-1, D41204-2, D41204-3, D41204-4, D41204-5, D41204-6
Batch GP8784: D41204-1, D41204-2, D41204-3, D41204-4
Batch GP8785: D41204-5, D41204-6
Batch GP8801: D41204-1, D41204-2, D41204-3, D41204-4, D41204-5, D41204-6
Batch GN17828: D41204-1, D41204-2, D41204-3, D41204-4, D41204-5, D41204-6
Batch GN17840: D41204-1, D41204-2, D41204-3, D41204-4, D41204-5, D41204-6
Batch GN17841: D41204-1, D41204-2, D41204-3, D41204-4, D41204-5, D41204-6
Batch GN17843: D41204-1, D41204-2, D41204-3, D41204-4, D41204-5, D41204-6
(*) Outside of QC limits

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DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D41204
Account: CORCCOGJ - Olsson Associates
Project: Knight Property

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Alkalinity, Total as CaCO ₃	GN17840	D41174-1	mg/l	251	246	2.3	0-20%
BOD, 5 Day	GP8768/GN17905	D41182-1	mg/l	118	175	38.9*(a)	0-20%
Chemical Oxygen Demand	GP8801/GN17900	D41204-1	mg/l	21.7	19.6	9.9	0-20%
Phosphorus, Total	GP8784/GN17883	D41172-1	mg/l	0.0	0.0	0.0	0-20%
Phosphorus, Total	GP8785/GN17884	D41224-1	mg/l	0.0	0.0	0.0	0-20%
Total Organic Carbon	GP8773/GN17852	D41204-1	mg/l	10.2	10.0	2.0	0-20%

Associated Samples:

Batch GP8768: D41204-1, D41204-2, D41204-3, D41204-4, D41204-5, D41204-6
Batch GP8773: D41204-1, D41204-2, D41204-3, D41204-4, D41204-5, D41204-6
Batch GP8784: D41204-1, D41204-2, D41204-3, D41204-4
Batch GP8785: D41204-5, D41204-6
Batch GP8801: D41204-1, D41204-2, D41204-3, D41204-4, D41204-5, D41204-6
Batch GN17840: D41204-1, D41204-2, D41204-3, D41204-4, D41204-5, D41204-6

(*) Outside of QC limits

(a) High RPD due to possible sample nonhomogeneity.

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D41204
Account: CORCCOGJ - Olsson Associates
Project: Knight Property

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Alkalinity, Total as CaCO ₃	GN17840	D41174-1	mg/l	251	100	335	83.2	80-120%
Bromide	GP8765/GN17837	D41174-1	mg/l	0.56	5	5.3	94.8	80-120%
Chemical Oxygen Demand	GP8801/GN17900	D41204-1	mg/l	21.7	40	72.8	127.8	70-130%
Chloride	GP8765/GN17837	D41174-1	mg/l	27.9	20	47.8	99.5	80-120%
Nitrogen, Nitrate	GP8765/GN17837	D41174-1	mg/l	0.062	1.13	1.2	100.7	80-120%
Nitrogen, Nitrite	GP8765/GN17837	D41174-1	mg/l	0.0	0.609	0.57	93.6	80-120%
Phosphate, Ortho	GP8765/GN17837	D41174-1	mg/l	0.0	1.63	1.7	104.3	80-120%
Phosphorus, Total	GP8784/GN17883	D41172-1	mg/l	0.0	0.40	0.42	105.0	80-120%
Phosphorus, Total	GP8785/GN17884	D41224-1	mg/l	0.0	0.40	0.39	97.5	80-120%
Sulfate	GP8765/GN17837	D41174-1	mg/l	375	500	867	98.4	80-120%
Total Organic Carbon	GP8773/GN17852	D41204-3	mg/l	4.4	10	14.8	104.0	80-120%

Associated Samples:

Batch GP8765: D41204-1, D41204-2, D41204-3, D41204-4, D41204-5, D41204-6

Batch GP8773: D41204-1, D41204-2, D41204-3, D41204-4, D41204-5, D41204-6

Batch GP8784: D41204-1, D41204-2, D41204-3, D41204-4

Batch GP8785: D41204-5, D41204-6

Batch GP8801: D41204-1, D41204-2, D41204-3, D41204-4, D41204-5, D41204-6

Batch GN17840: D41204-1, D41204-2, D41204-3, D41204-4, D41204-5, D41204-6

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D41204
Account: CORCCOGJ - Olsson Associates
Project: Knight Property

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Alkalinity, Total as CaCO ₃	GN17840	D41174-1	mg/l	251	100	334	0.0	20%
Bromide	GP8765/GN17837	D41174-1	mg/l	0.56	5	5.3	0.0	20%
Chemical Oxygen Demand	GP8801/GN17900	D41204-1	mg/l	21.7	40	69.4	4.8	20%
Chloride	GP8765/GN17837	D41174-1	mg/l	27.9	20	47.4	0.8	20%
Nitrogen, Nitrate	GP8765/GN17837	D41174-1	mg/l	0.062	1.13	1.1	8.7	20%
Nitrogen, Nitrite	GP8765/GN17837	D41174-1	mg/l	0.0	0.609	0.57	0.0	20%
Phosphate, Ortho	GP8765/GN17837	D41174-1	mg/l	0.0	1.63	1.5	12.5	20%
Phosphorus, Total	GP8784/GN17883	D41172-1	mg/l	0.0	0.40	0.430	2.4	20%
Phosphorus, Total	GP8785/GN17884	D41224-1	mg/l	0.0	0.40	0.400	2.5	20%
Sulfate	GP8765/GN17837	D41174-1	mg/l	375	500	887	2.3	20%
Total Organic Carbon	GP8773/GN17852	D41204-3	mg/l	4.4	10	14.8	0.0	20%

Associated Samples:

Batch GP8765: D41204-1, D41204-2, D41204-3, D41204-4, D41204-5, D41204-6
 Batch GP8773: D41204-1, D41204-2, D41204-3, D41204-4, D41204-5, D41204-6
 Batch GP8784: D41204-1, D41204-2, D41204-3, D41204-4
 Batch GP8785: D41204-5, D41204-6
 Batch GP8801: D41204-1, D41204-2, D41204-3, D41204-4, D41204-5, D41204-6
 Batch GN17840: D41204-1, D41204-2, D41204-3, D41204-4, D41204-5, D41204-6
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits