Received 8/2/2012 Rifle COGCC

F12E Visual Observation Walks
Production Drilling Observations
October 20, 2011 through March 12, 2012

Date	Location	Time	Sampled Collected? (Y/N)	Conducted By:	Notes
Production Drilling Observations					
10/20/11	Langegger Property	930	N	DP, RK, AS	Initial F12E creek and pond baseline walkover.
	Thompson Property		N		
	Staufer Property		N		
01/27/12	Langegger Property	1400	N	GW, RK	5A2 completing surface casing, no visual impact to surface water
	Thompson Property		N		
	Staufer Property		N		
01/30/12	Langegger Property	1500	N	GW	Begin Drilling 12-5D1, ponds frozen, no visual impact to surface water
	Thompson Property		N		
	Staufer Property		N		
02/01/12	Langegger Property	1300	N	GW	Drilling 12-5D1, ponds frozen, no visual impacts to surface water
	Thompson Property		N		
	Staufer Property		N		
02/03/12	Langegger Property	1320	N	GW	Drilling 12-5D1, ponds frozen, observed biofilm, no visual impacts to surface water
	Thompson Property		N		
	Staufer Property		N		
02/06/12	Langegger Property	1335	Y	GW	Drilling 12-5D1, ponds frozen, collected biofilm sample (WP #605), no visual impacts to surface water
	Thompson Property		N		
	Staufer Property		N		
02/08/12	Langegger Property	950	N	GW	Finished 12-5D1, no visual impacts to surface water
	Thompson Property		N		
	Staufer Property		N		
02/09/12	Langegger Property	1300	N	GW	Start 12-51A drilling, biofilm dissipated, no visual impacts to surface water
	Thompson Property		N		
	Staufer Property		N		
02/10/12	Langegger Property	1015	N	GW	Drilling 12-51A, no visual impacts to surface water
	Thompson Property		N		
	Staufer Property		N		
02/11/12	Langegger Property	1444	N	GW	Drilling 12-51A, no visual impacts to surface water
	Thompson Property		N		
	Staufer Property		N		
02/12/12	Langegger Property	1300	N	GW	Drilling 12-51A, no visual impacts to surface water
	Thompson Property		N		
	Staufer Property		N		
02/13/12	Langegger Property	1200	N	GW	Drilling 12-51A, no visual impacts to surface water
	Thompson Property		N		
	Staufer Property		N		

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02/14/12	Langegger Property	1150	N	GW	Drilling 12-51A, creek had greater sediment in suspension (runoff),no visual impacts to surface water
	Thompson Property		N		
	Staufer Property		N		
02/15/12	Langegger Property	950	N	GW	Begin drilling 12-5A2, no visual impacts to surface water
	Thompson Property		N		
	Staufer Property		N		
02/17/12	Langegger Property	646	N	MB	Drilling 12-5A2, no visual impacts to surface water
	Thompson Property		N		
	Staufer Property		N		
02/20/12	Langegger Property	900	N	GW	Drilling 12-5A2, fresh snow, no visual impacts to surface water
	Thompson Property		N		
	Staufer Property		N		
02/22/12	Langegger Property	1300	N	GW	Drilling 12-4D1, warmer, runoff starting, ponds melting & clear, no visual impacts to surface water
	Thompson Property		N		
	Staufer Property		N		
02/24/12	Langegger Property	1230	N	GW	Drilling 12-4D1, runoff, ponds melting & clear, biofilm (WP#611), no visual impacts to surface water
	Thompson Property		N		
	Staufer Property		N		
02/27/12	Langegger Property	1444	N	GW	Drilling 12-4D1, runoff, ponds melting & clear, no visual impacts to surface water
	Thompson Property		N		
	Staufer Property		N		
02/29/12	Langegger Property	1430	N	GW	Drilling 12-4D1, runoff, aeration foam on creek, sediment in suspension, biofilm (WP#605, 622, & point next to Bracken fence), no visual impacts to surface water
	Thompson Property		N		
	Staufer Property		N		
03/02/12	Langegger Property	643	N	MB	Drilling 12-4D1, 6 inch of new snow, aeration foam on creek, sediment in suspension, no visual impacts to surface water
	Thompson Property		N		
	Staufer Property		N		
03/05/12	Langegger Property	1030	N	GW	Drilling 12-4A1, aeration foam on creek, sediment in suspension, natural sheen still present (WP#605, 623, & point next to Bracken fence), no visual impacts to surface water
	Thompson Property		N		
	Staufer Property		N		

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Date	Location	Time	Sampled Collected? (Y/N)	Conducted By:	Notes
03/07/12	Langegger Property	1350	N	GW	Drilling 12-4A1, aeration foam on creek, sediment in suspension, no visual impacts to surface water
	Thompson Property		N		
	Staufer Property		N		
03/09/12	Langegger Property	835	N	SJ	Drilling 12-4A1, aeration foam on creek, sediment in suspension, no visual impacts to surface water
	Thompson Property		N		
	Staufer Property		N		
03/12/12	Langegger Property	1530	N	GW	Drilling 12-4A1, aeration foam on creek, sediment in suspension, Most snow/ice melted, no visual impacts to surface water
	Thompson Property		N		
	Staufer Property		N		

GW = Garrett Waltsak (Rule)
SJ = Shad Johnson (Rule)
MB = Megan Brown (Rule)

RK = Russ Knight (Rule)
DP = Dan Prokop (Encana)
AS = Aaron Stacy (Olsson Associates)

WP #605 (39.46296 / -107.62321)
WP #622 (39.46402 / -107.62032)
WP #623 (39.46217 / -107.62278)

F12E Designated area includes:

1) The area of West Divide Creek which falls within Section 12, Twp 7S Range 92 W. The northern boundary geographic coordinates are 39.469057 -107.617633, the southern boundary geographic coordinates are 39.461447 -107.624431

2) Three ponds located on the Langegger property and identified as follows; North Pond: 39.468075 -107.618814, Middle Pond: 39.464519 -107.620511, Upper Pond 39.463297 -107.619584

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F12E Visual Observation Walks
Completions Observations
June 11 through June 27, 2012

Date	Location	Time	Sampled Collected? (Y/N)	Conducted By:	Notes
			Completions Observations		
06/11/12	Langegger Property	950	N	SJ	Prior to Frac operations, creek is flowing 2-4 ft/sec, ~1.0 feet below bankfull stage, no visual impact to surface water
	Thompson Property		N		
	Staufer Property		N		
06/13/12	Langegger Property	1120	N	SJ	Prior to Frac operations, creek is flowing 2-4 ft/sec, ~1.0 feet below bankfull stage, no visual impact to surface water
	Thompson Property		N		
	Staufer Property		N		
06/14/12	Langegger Property	940	N	SJ	Begin Frac (6A1, 6D1,3D2), No visual impact to surface water
	Thompson Property		N		
	Staufer Property		N		
06/15/12	Langegger Property	1100	N	SM	Frac (5A2,5A1), mild foam noted (natural), No visual impact to surface water
	Thompson Property		N		
	Staufer Property		N		
06/16/12	Langegger Property	1400	N	MB	Frac (5A1), foam noted (natural), No visual impact to surface water
	Thompson Property		N		
	Staufer Property		N		
06/17/12	Langegger Property	815	N	SJ	Frac (5A1), bio-film noted (WP 515),foam noted (natural)
	Thompson Property		N		
	Staufer Property		N		
06/18/12	Langegger Property	1230	Y	SJ	Frac (5A1), biofilm sampled (BTEX - below detection limit), No visual impact to surface water
	Thompson Property		N		
	Staufer Property		N		
06/19/12	Langegger Property	830	N	SJ	Frac (5A1, 4A1), No visual impact to surface water
	Thompson Property		N		
	Staufer Property		N		
06/20/12	Langegger Property	825	N	SJ	Frac (5A1 finished, 3D1), No visual impact to surface water
	Thompson Property		N		
	Staufer Property		N		

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F12E Visual Observation Walks
Completions Observations
June 11 through June 27, 2012

Date	Location	Time	Sampled Collected? (Y/N)	Conducted By:	Notes
06/21/12	Langegger Property	940	N	SJ	Frac (4A1, round robin rest of wells), No visual impact to surface water
	Thompson Property		N		
	Staufer Property		N		
06/22/12	Langegger Property	830	N	SJ	Frac (Round robin rest of wells), No visual impact to surface water
	Thompson Property		N		
	Staufer Property		N		
06/25/12	Langegger Property	930	N	SJ	Frac (6A1, 3D2, 6C1, 4D1, 5A2, 5D1), No visual impact to surface water
	Thompson Property		N		
	Staufer Property		N		
06/27/12	Langegger Property	830	N	SJ	Frac completed, equipment moving off pad, No visual impact to surface water
	Thompson Property		N		
	Staufer Property		N		

SM = Scotty Mann (Rule)
SJ = Shad Johnson (Rule)
MB = Megan Brown (Rule)

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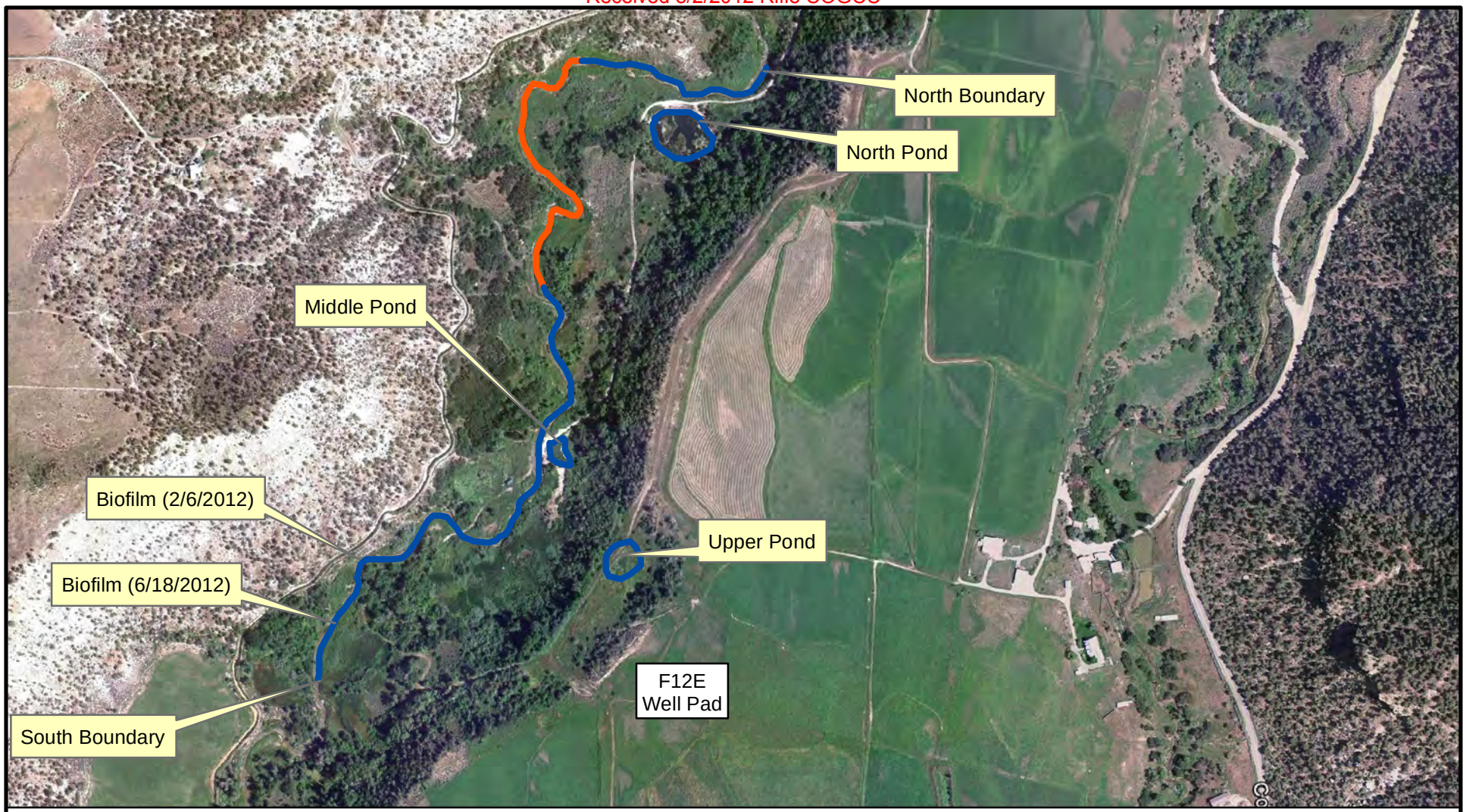

Legend

- Observable Area
- Private Property (no access granted)

N

0 0.05 0.1 0.2 0.3 0.4 Miles

Rule Engineering, LLC
Solutions to Regulations for Industry

encana natural gas

F12E
Creek Walk/Observation Map

DATE: 7/31/2012 | JG | FILE: \\EnCana\Figures\F12E\120731 F12E Creek Walk Figure 1.pdf | FIGURE: 1