Table 2
Surface Water and Drinking Water Sample Analytical Results
XTO - Marquardt Pad
Penn Township, Lycoming County, Pennsylvania

Sample ID Date Time		PADEP STANDARDS			PRODUCED WATER		SURFACE WATER									
		SHS MSCs for Groundwater in Used Aquifer, Residential Setting	SHS MSCs for Groundwater in Used Aquifer, Non-Residential Setting	Surface Water Quality Standards (mg/L)[1]	Frac Tank 11/23/10 3:20 PM		Spring 11/23/10 12:22 PM		UNT-Upstream 11/23/10 12:42 PM		UNT-Downstream 11/23/10 1:09 PM		Sugar Run-Upstream 11/26/10 2:02 PM		Sugar Run-Downstream 11/26/10 2:16 PM	
	Units															
Barium (Total)	mg/L	**2**	**2**	**2.4**	**1,440.00**		**5.38**		0.10	U	0.56		0.10	U	0.10	U
Barium (Dissolved)	mg/L	**2**	**2**	**2.4**	**1,760.00**	U	**4.17**		0.10	U	0.48		0.10	U	0.10	U
Calcium (Total)	mg/L				6,570.000		128.000		14.300		54.900		12.700		14.600	
Calcium (Dissolved)	mg/L				4,930.000		103.000		10.300		39.600		10.700		12.400	
Iron (Total)	mg/L	**0.300**	**0.300**	**1.5**	**7.71**		0.20	U	**0.840**		0.20	U	0.200	U	0.20	U
Iron (Dissolved)	mg/L	**0.300**	**0.300**	**0.300**	**2.00**	U	0.20	U	0.200	U	0.20	U	0.200	U	0.20	U
Magnesium (Total)	mg/L				377.000		51.700		5.550		18.600		2.760		4.110	
Magnesium (Dissolved)	mg/L				343.000		37.900		6.190		15.300		2.450		3.530	
Manganese (Total)	mg/L	**0.050**	**0.050**	**1.0**	**3.84**		**0.23**		0.05	U	0.05	U	0.05	U	0.05	U
Manganese (Dissolved)	mg/L	**0.050**	**0.050**		**3.38**		**0.20**		0.05	U	0.05	U	0.05	U	0.05	U
Potassium (Total)	mg/L				145.00		8.81		1.38		3.28		1.82		2.11	
Potassium (Dissolved)	mg/L				132.00		7.04		1.67		2.84		1.51		1.84	
Sodium (Total)	mg/L				22,800.000		281.000		3.190		77.300		4.750		8.940	
Sodium (Dissolved)	mg/L				18,100.000		206.000		2.310		58.200		5.470		7.680	
Strontium (Total)	mg/L				1600.0000		11.0000		0.0450		2.1000		0.0440		0.1400	
Strontium (Dissolved)	mg/L				1300.0000		9.3000		0.0440		1.8000		0.0810		0.1300	
Bromide	mg/L				422.0000	U	5.2800		0.1000	U	1.6600		0.1000	U	0.1030	
Chloride	mg/L	**250**	**250**	**250**	**52,000.00**		**787.00**		4.85		227.00		8.76		24.10	
Total Dissolved Solids	mg/L	**500**	**500**		**87,500.00**		**1,580.00**		123.00		**579.00**		60.00		88.00	
Alkalinity	mg/L			**20**	73.000		20.000	U	20.000	U	20.000	U	25.000		22.000	
Hardness	mg $CaCO_3$/L				18,000.00		533.00		58.50		54.90		43.10		53.30	
pH				**6.0 - 9.0**	6.46		5.57		6.60		6.67		7.50		7.38	

Notes
U = Not Detected at Listed Concentration
BOLD = Result above the PADEP Act 2 MSC for Groundwater in a Used Aquifer Residential
BOLD WITH SHADING = Result Above the PADEP Act 2 MSC for Groundwater in a Used Aquifer Non-residential setting
mg/L = milligrams per liter
The Wheat well was sampled on November 26, 2010, by Seawald Laboratories, Inc. All remaining samples were analyzed by American Westech Incorporated.

XTO-EPA0001119