September 15th, 2017

State of West Virginia
Department of Environmental Protection - Office of Oil and Gas
Well Operator's Report of Well Work

API 47-085-10068FH6A County Ritchie District Clay
Quad Pennsboro Pad Name PEN2HS Field/Pool Name Pennsboro
Farm Name KIESSLING, TERRY & HELEN Well Number PEN2BHS - Fracture
Operator (as registered with the OOG) CNX Gas Company LLC
Address P.O. Box 1248 City Jane Lew State WV Zip 26378

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top Hole Northing 4,354,128.50 m Easting 498,913.29 m
Landing Point of Curve Northing 4,353,803.95 m Easting 498,684.15 m
Bottom Hole Northing 4,351,692.85 m Easting 500,491.60 m

Elevation (ft) 1084' GL Type of Well ■ New □ Existing Type of Report □ Interim ■ Final
Permit Type □ Deviated □ Horizontal ■ Horizontal 6A □ Vertical Depth Type □ Deep ■ Shallow
Type of Operation □ Convert □ Deepen ■ Drill □ Plug Back □ Redrilling ■ Rework ■ Stimulate
Well Type □ Brine Disposal □ CBM ■ Gas □ Oil □ Secondary Recovery □ Solution Mining □ Storage Other
Type of Completion □ Single ■ Multiple Fluids Produced ■ Brine ■ Gas □ NGL □ Oil Other
Drilled with □ Cable ■ Rotary

Drilled Media Surface hole ■ Air □ Mud □ Fresh Water Intermediate hole ■ Air □ Mud ■ Fresh Water □ Brine
Production hole □ Air ■ Mud □ Fresh Water □ Brine
Mud Type(s) and Additive(s)
Synthetic Oil Based.

Date Permit Issued 02/08/2017 Date drilling commenced 03/06/2017 Date drilling ceased 03/18/2017
Date completion activities began 03/06/2017 Date completion activities ceased 03/18/2017
Verbal plugging (Y/N) N Date permission granted N/A Granted by N/A

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

RECEIVED
Office of Oil and Gas
SEP 18 2017
WV Department of
Environmental Protection

Freshwater depth(s) ft 454' Open mine(s) (Y/N) depths N
Salt water depth(s) ft None Noted for Offsets Void(s) encountered (Y/N) depths N
Coal depth(s) ft No Coal Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

APPROVE
NAME: Michael Dolf
DATE: 10-25-17

Reviewed by:
Honce, Mike

01/05/2018

API 47-085-10068FH6A **Farm name** KIESSLING, TERRY & HELEN **Well number** PEN2BHS - Fracture

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement Circulate (Y/N) * Provide details to the right *
Conductor	36"	30"	40'				
Surface	17 1/2"	13 3/8"	579.4'	New	J-55 54.5# / 579.4'		Y
Coal							
Intermediate 1	12 3/8"	9 5/8"	5562.5'	N	K-55 36# / 5562.5'		Y
Intermediate 2							
Intermediate 3							
Production	8 3/4"	5 1/2"	15996'	N	P-110 20# / 15996'		Y
Tubing							
Packer Type and Depth Set	None						

Comment Details

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft 3/sks)	Volume (ft 3)	Cement Top (MD)	WOC (hrs)
Conductor							
Surface	TYPE 1	535 sks	15.60	1.20	114.5	0'	8
Coal							
Intermediate 1	Class A (Lead) / Class A (Tail)	1012 sks / 290 sks	12.0 / 15.60	1.93 / 1.19	202 / 167	0'	8
Intermediate 2							
Intermediate 3							
Production	Class A (Lead) / Class A (Tail)	400 sks / 2035 sks	12.3 / 14.8	1.61 / 1.36	167 / 207	5249'	8
Tubing							

Drillers TD (ft) 6,324' Loggers TD (ft) 6,297'

Deepest formation penetrated: Marcellus Plug back to (ft) Not a Pilot Hole

Plug back procedure: Not a Pilot Hole

Kick Off Depth (ft) 6,942'

Check all wireline logs run ☐ caliper ☐ density ☐ deviated/directional ☐ induction
☐ neutron ☐ resistivity ■ gamma ray ☐ temperature ☐ sonic

Well Cored ☐ Yes ☐ No ☐ Conventional ☐ Sidewall Were Cuttings Collected ■ Yes ☐ No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING
Conductor - No centralizers used. Fresh Water / Surface - Surface - 5 centralizers used, one every third joint. Intermediate - 67 centralizers - bow spring centralizers on every joint to KOP, on every third joint from KOP to 100' from surface. Production - 272 centralizers - rigid bow spring every third joint from KOP to TOC, rigid bow spring every joint to KOP.

RECEIVED
Office of Oil and Gas
SEP 18 2017
WV Department of Environmental Protection

WAS WELL COMPLETED AS SHOT HOLE ■ Yes ☐ No DETAILS Plug And Perforation Shot Hole

WAS WELL COMPLETED OPEN HOLE ☐ Yes ■ No DETAILS

WERE TRACERS USE ☐ Yes ■ No TYPES OF TRACER(S) USED

01/05/2018

API 47-085-10068FH6A **Farm name** KIESSLING, TERRY & HELEN **Well number** PEN2BHS - Fracture

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number Of Perforations	Formation(s)
					See Attached

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Avg Pump Rate (BPM)	Avg Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen / other (gals)
								See Attached

Please insert additional pages as applicable.

API 47-085-10068FH6A Farm name KIESSLING, TERRY & HELEN Well number PEN2BHS - Fracture

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number Of Perforations	Formation(s)
1	3/6/2017	15707	15865	40	Marcellus
2	3/6/2017	15512	15674	40	Marcellus
3	3/7/2017	15312	15474	40	Marcellus
4	3/7/2017	15112	15274	40	Marcellus
5	3/8/2017	14912	15074	40	Marcellus
6	3/8/2017	14712	14874	40	Marcellus
7	3/8/2017	14512	14674	40	Marcellus
8	3/9/2017	14312	14474	40	Marcellus
9	3/9/2017	14112	14274	40	Marcellus
10	3/9/2017	13912	14074	40	Marcellus
11	3/10/2017	13712	13893	40	Marcellus
12	3/10/2017	13512	13674	40	Marcellus
13	3/10/2017	13312	13474	40	Marcellus
14	3/11/2017	13274	13112	40	Marcellus
15	3/11/2017	12912	13074	40	Marcellus
16	3/11/2017	12712	12874	40	Marcellus
17	3/12/2017	12512	12672	40	Marcellus
18	3/12/2017	12312	12474	40	Marcellus
19	3/12/2017	12112	12274	40	Marcellus
20	3/12/2017	11912	12074	40	Marcellus
21	3/13/2017	11712	11874	40	Marcellus
22	3/13/2017	11512	11674	40	Marcellus
23	3/13/2017	11312	11474	40	Marcellus
24	3/13/2017	11112	11274	40	Marcellus
25	3/14/2017	10912	11074	40	Marcellus
26	3/14/2017	10712	10874	40	Marcellus
27	3/14/2017	10512	10674	40	Marcellus
28	3/14/2017	10312	10493	40	Marcellus
29	3/15/2017	10112	10274	40	Marcellus
30	3/15/2017	9912	10074	40	Marcellus
31	3/15/2017	9712	9874	40	Marcellus
32	3/15/2017	9512	9674	40	Marcellus
33	3/15/2017	9312	9474	40	Marcellus
34	3/16/2017	9112	9293	40	Marcellus
35	3/16/2017	8912	9074	40	Marcellus
36	3/16/2017	8712	8874	40	Marcellus
37	3/16/2017	8512	8674	40	Marcellus
38	3/17/2017	8312	8474	40	Marcellus

API 47-085-10068FH6A Farm name KIESSLING, TERRY & HELEN Well number PEN2BHS - Fracture

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number Of Perforations	Formation(s)
39	3/17/2017	8112	8274	40	Marcellus
40	3/17/2017	7912	8074	40	Marcellus
41	3/17/2017	7712	7893	40	Marcellus
42	3/18/2017	7512	7674	40	Marcellus
43	3/18/2017	7312	7474	40	Marcellus
44	3/18/2017	7112	7293	40	Marcellus
45	3/18/2017	6912	7074	40	Marcellus

API 47-085-10068FH6A Farm name KIESSLING, TERRY & HELEN Well number PEN2BHS - Fracture

STIMULATION INFORMATION PER STAGE

Stage No.	Stimulations Date	Avg Pump Rate (BPM)	Avg Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen / other (gals)
1	3/6/2017	85.7	7462	na	na	400700	8825	1941
2	3/6/2017	87.1	7476	4965	3958	401000	8569	4458
3	3/7/2017	89.7	7842	5395	3731	401443	7850	1799
4	3/7/2017	86.9	7670	5994	4175	400600	8576	4415
5	3/8/2017	90	8254	6053	4089	401214	7638	4250
6	3/8/2017	85.1	7822	5743	4106	401100	8227	4300
7	3/8/2017	89.9	8531	5335	3975	400377	7672	4258
8	3/9/2017	85.3	8057	5210	4290	401262	8261	4361
9	3/9/2017	86.9	8207	5085	4458	401554	7655	4385
10	3/9/2017	87.9	8628	5872	4526	400787	7731	4266
11	3/10/2017	84.3	8283	5572	4025	400978	7538	4247
12	3/10/2017	87.5	8151	5457	3738	400336	6771	4234
13	3/10/2017	90.1	8272	5412	4943	401216	6923	4207
14	3/11/2017	88.8	8210	5264	5076	401907	6817	4223
15	3/11/2017	86.9	8234	5396	3836	401587	6914	4303
16	3/11/2017	89.2	8087	5796	4079	401610	6964	4210
17	3/12/2017	90.8	8209	5408	4033	400830	6712	4259
18	3/12/2017	90.1	7818	5110	3968	401575	6231	4202
19	3/12/2017	88.1	7873	5342	4706	402024	8589	4587
20	3/12/2017	87.7	7794	5766	3917	400642	8304	4370
21	3/13/2017	90	7853	5132	3894	401265	6934	4203
22	3/13/2017	89.6	7600	5208	3680	401136	7349	4333
23	3/13/2017	90.3	7673	5497	4389	401345	7021	4235
24	3/13/2017	88.5	7473	5717	4324	400617	6819	4242
25	3/14/2017	85.4	7319	5982	3642	400470	6540	4241
26	3/14/2017	90.1	7578	5545	4347	400484	7267	4266
27	3/14/2017	89.4	7529	5357	4124	400319	7094	3231
28	3/14/2017	91	7572	5702	4171	401031	6461	3241
29	3/15/2017	88.1	7787	5581	4227	401805	6093	3272
30	3/15/2017	88.6	7500	5523	3938	401306	6171	5012
31	3/15/2017	89.7	7735	na	4194	401191	6733	3215
32	3/15/2017	91.4	7475	5663	3999	400569	6473	3221
33	3/16/2017	90	7198	5992	4001	400700	6221	3204
34	3/16/2017	89.7	7340	5071	4480	400400	6485	3302
35	3/16/2017	89.6	7439	4923	4056	400555	7081	3211
36	3/16/2017	89.6	7347	5769	5220	382168	6745	3226
37	3/16/2017	88.5	7615	5782	3712	400413	7285	3236
38	3/17/2017	88.8	7429	5352	4942	343380	7437	3204

API 47-085-10068FH6A Farm name KIESSLING, TERRY & HELEN Well number PEN2BHS - Fracture

STIMULATION INFORMATION PER STAGE

Stage No.	Stimulations Date	Avg Pump Rate (BPM)	Avg Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen / other (gals)
39	3/17/2017	89.6	7100	5986	4024	401426	7191	3250
40	3/17/2017	89.3	6862	5554	4311	401309	7190	3266
41	3/17/2017	91.4	6931	7124	4235	400400	6626	3214
42	3/18/2017	91.3	6815	6090	4075	400426	6621	3203
43	3/18/2017	89.8	6720	6859	4438	400679	7218	3238
44	3/18/2017	90.7	6777	6402	4697	400772	7195	3229
45	3/18/2017	90.2	6817	5467	4690	405558	6959	3205

API 47-085-10068FH6A **Farm name** KIESSLING, TERRY & HELEN **Well number** PEN2BHS - Fracture

PRODUCING FORMATION(S)	DEPTHS			
MARCELLUS	6324 '- '	TVD	16010'- '	MD

Please insert additional pages as applicable.

GAS TEST ☐ Build up ☐ Drawdown ■ Open Flow OIL TEST ☐ Flow ☐ Pump

SHUT-IN PRESSURE Surface 803 psi Bottom Hole 2453 psi DURATION OF TEST 2 hrs

OPEN FLOW	Gas		Oil		NGL		Water		GAS MEASURED BY		
	3840	mcfpd	142	bpd	N/A	bpd	432	bpd	☐ Estimated	■ Orifice	☐ Pilot

LITHOLOGY / FORMATION	TOP DEPTH IN FT TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY TYPE OF FLUID (FRESHWATER,BRINE,GAS,H2S, ETC)
					SEE ATTACHED

RECEIVED
Office of Oil and Gas
SEP 18 2017
WV Department of Environmental Protection

Please insert additional pages as applicable.

Drilling Contractor NOMAC
Address 171 Locust Avenue Ext. City Mt. Morris State PA Zip 15349

Logging Company
Address City State Zip

Cementing Company Schlumberger
Address 4600 J Barry Court, Suite 200 City Canonsburg State PA Zip 15317

Stimulating Company
Address City State Zip

Please insert additional pages as applicable.

Completed by CNX Gas WV Operations Company, LLC - Drilling and Completions Telephone 304-884-2000
Signature Title Adam Shutler - Completions Superintendent-Gas WV Date 9/7/17

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

01/05/2018

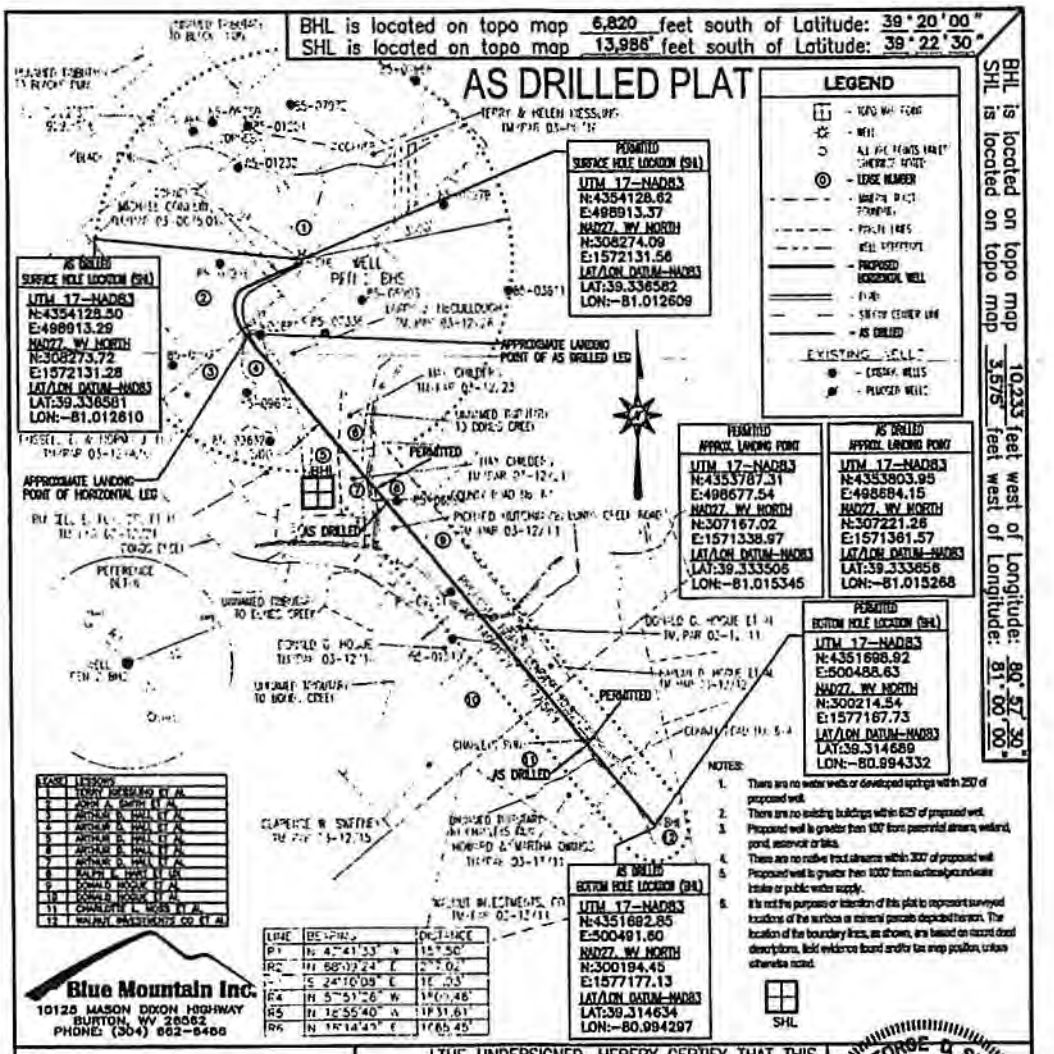
API 47-085-10068FH6A **Farm name** KIESSLING, TERRY & HELEN **Well number** PEN2BHS - Fracture

LITHOLOGY / FORMATION	TOP DEPTH IN FT TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY TYPE OF FLUID (FRESHWATER,BRINE,GAS,H2S, ETC)
SHALE AND SANDSTONE	0	1309	0	1309	
SANDSTONE	1309	1423	1309	1423	
SHALE AND SANDSTONE	1423	1593	1423	1593	
SANDSTONE	1593	1635	1593	1635	
SHALE AND SANDSTONE	1635	1737	1635	1737	
MAXTON SAND	1737	1820	1737	1820	
SHALE AND SANDSTONE	1820	1943	1820	1943	
BIG LIME	1943	1998	1943	1998	
BIG INJUN	1998	2133	1998	2133	
PRICE	2133	2405	2133	2405	
WEIR	2405	2444	2405	2444	
SHALE	2444	2724	2444	2724	
GORDON	2724	2741	2724	6301	
SHALE AND SANDSTONE	2741	2921	2741	6302	
5TH SAND	2921	2933	2921	6371	
SHALE	2933	3076	2933	Not Encountered	
SANDSTONE	3076	3090	3076	Not Encountered	
SHALE	3090	3498	3090	Not Encountered	
WARREN	3498	3560	3500	6300	
SHALE	3560	3894	3562	6301	
SANDSTONE	3894	3931	3900	6302	
SHALE AND SANDSTONE	3931	4925	3937	6371	
BENSON	4925	4987	4941	Not Encountered	
SHALE	4987	5147	5004	Not Encountered	
ALEXANDER	5147	5215	5166	Not Encountered	
SHALE	5215	5725	5234	Not Encountered	
RHEINSTREET	5725	6051	5750	Not Encountered	
CASHAQUA	6051	6143	6080	Not Encountered	
MIDDLESEX	6143	6172	6176	Not Encountered	
WEST RIVER	6172	6216	6206	Not Encountered	
BURKETT	6216	6259	6253	Not Encountered	
TULLY LIMESTONE	6259	6260	6300	Not Encountered	
HAMILTON	6260	6261	6301	6302	Gas
MARCELLUS	6261	6320	6302	6371	
ONONDAGA	6320		6371	Not Encountered	

BHL is located on topo map 6,820 feet south of Latitude: 39°20'00"
SHL is located on topo map 13,986' feet south of Latitude: 39°22'30"

BHL is located on topo map 10,233 feet west of Longitude: 80°57'30"
SHL is located on topo map 3,575' feet west of Longitude: 81°00'00"

AS DRILLED PLAT



FILE #: PEN 2 BHS-AS DRILLED

DRAWING #: PEN 2 BHS-AS DRILLED

SCALE: 1" = 2000'

MINIMUM DEGREE OF ACCURACY: 1/2500

PROVEN SOURCE OF ELEVATION: U.S.G.S. MONUMENT THOMAS 1498.81'

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

Signed: George A. Six

R.P.E.: _____ L.L.S.: P.S. No. 2000

GEORGE A. SIX LICENSED No. 2000 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR

PLACE SEAL HERE

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

WVDEP
OFFICE OF OIL & GAS
601 57TH STREET
CHARLESTON, WV 25304

DATE: DECEMBER 19, 2016

OPERATOR'S WELL #: PEN 2 BHS-AS DRILLED

API WELL #: 47 (STATE) 85 (COUNTY) 10068 (PERMIT)

Well Type: ☐ Oil ☐ Waste Disposal ☒ Production ☐ Deep
☒ Gas ☐ Liquid Injection ☐ Storage ☒ Shallow

WATERSHED: NORTH FORK HUGHES RIVER ELEVATION: 1084'±

COUNTY/DISTRICT: RITCHIE / CLAY QUADRANGLE: ELLENBORO, WV 7.5'

SURFACE OWNER: TERRY & HELEN KIESSLING ACREAGE: 79.242±

OIL & GAS ROYALTY OWNER: TERRY KIESSLING ET AL ACREAGE: 716.083±

DRILL ☐ CONVERT ☐ DRILL DEEPER ☐ REDRILL ☐ FRACTURE OR STIMULATE ☒

PLUG OFF OLD FORMATION ☐ PERFORATE NEW FORMATION ☐ PLUG & ABANDON ☐

CLEAN OUT & REPLUG ☐ OTHER CHANGE ☐ (SPECIFY): _____

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: TVD: 6,324'± TMD: 16,145'±

WELL OPERATOR CNX GAS COMPANY LLC DESIGNATED AGENT CHRIS TURNER

Address 1000 CONSOL ENERGY DRIVE Address 1 DOMINION DR.

City CANONSBURG State PA Zip Code 15317 City JANE LEW State WV Zip Code 26378

RECEIVED
Office of Oil and Gas
SEP 18 2017
WV Department of Environmental Protection

01/05/2018

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	3/6/2017
Job End Date:	3/18/2017
State:	West Virginia
County:	Ritchie
API Number:	47-085-10068-00-00
Operator Name:	CONSOL Energy Inc.
Well Name and Number:	PEN-2B-HS
Latitude:	39.33658200
Longitude:	-81.01260900
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,297
Total Base Water Volume (gal):	14,354,718
Total Base Non Water Volume:	

FracFocus Chemical Disclosure Registry

GROUNDWATER PROTECTION COUNCIL

INTERSTATE Oil & Gas COMPACT COMMISSION

Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Water	Consol	Carrier/Base Fluid					
				7732-18-5		85.74834	
Sand	Universal Well Services	Proppant					
				Listed Below			

WGA-7	Universal Well Services	Viscosifier					
				Listed Below			
Unislick CST	Universal Well Services	Friction Reducer					
				Listed Below			
Scale Hib A	Universal Well Services	Scale Inhibitor					
				Listed Below			
Scale Inhibitor E	Universal Well Services	Scale Inhibitor					
				Listed Below			
HCL ACID (15%	Universal Well Services	Acidizing					
				Listed Below			
Unislick ST50	Universal Wells Services	Friction Reducer					
				Listed Below			
Unihib G	Universal Well Services	Acid Inhibitor					
				Listed Below			
AP Breaker	Universal Well Services	Gel breaker					
				Listed Below			
HCL Acid (7.5%)	Universal Well Services	Acidizing					

				Listed Below			
Aqucar 714	Universal Well Services	Biocide					
				Listed Below			
Items above are Trade Names with the exception of Base Water . Items below are the individual ingredients.							
			Crystalline silica quartz	14808-60-7	99.90000	13.00106	
			Hydrochloric acid	7647-01-0	7.50000	0.06884	
			Hydrochloric acid	7647-01-0	15.00000	0.03627	
			Water	7732-18-5	45.00000	0.01636	
			Coploymer of 2-propenamide	Proprietary	30.00000	0.01090	
			Hydrotreated light petroleum distillate	64742-47-8	20.00000	0.00727	
			Water	7732-18-5	83.00000	0.00713	
			Hydrotreated light petroleum distillate	64742-47-8	30.00000	0.00550	
			Ammonium acetate	631-61-8	13.00000	0.00238	
			Guar gum	9000-30-0	55.00000	0.00215	
			Hydrotreated light petroleum distillate	64742-47-8	55.00000	0.00215	
			Ethylene glycol	107-21-1	30.00000	0.00192	
			Triethanolamine Trs (Phosphate Ester), Sodium Salt	68171-29-9	30.00000	0.00192	
			Glutaraldehyde	111-30-8	14.00000	0.00120	
			Alcohols, C12-14, ethoxylated	68439-50-9	5.00000	0.00092	
			Alcohols, (C10-16), ethoxylated	68002-97-1	5.00000	0.00092	
			Alcohols, C12-16, ethoxylated	68551-12-2	5.00000	0.00092	
			Oleic acid diethanolamide	93-83-4	2.00000	0.00073	
			Alcohols, C12-16, ethoxylated	68551-12-2	2.00000	0.00073	

			Butyl diglycol	112-34-5	75.00000	0.00069	
			Copolymer of Maleic and Acrylic Acid	52255-49-9	20.00000	0.00068	
			Alcohols, (C10-16), ethoxylated	68002-97-1	50.00000	0.00046	
			Ammonium chloride	12125-02-9	1.00000	0.00036	
			Quaternary ammonium compound	68424-85-1	2.50000	0.00021	
			DETA phosphonate	15827-60-8	5.00000	0.00017	
			Methanol	67-56-1	5.00000	0.00005	
			Ethanol	64-17-5	0.30000	0.00003	
			Thiourea	62-56-6	1.00000	0.00001	
			Formaldehyde	50-00-0	1.00000	0.00001	
			Ammonium peroxydisulfate	7727-54-0	100.00000	0.00001	
			Sulfuric acid	7664-93-9	0.50000		

* Total Water Volume sources may include various types of water including fresh water, produced water, and recycled water
** Information is based on the maximum potential for concentration and thus the total may be over 100%
*** If you are calculating a percentage of total ingredients do not add the water volume below the green line to the water volume above the green line

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.
Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)