

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

API 47-061-01675 County Monongalia District Clay
Quad Blacksville, WV Pad Name Coastal Field/Pool Name Blacksville
Farm name Coastal Forest Resources Company Well Number 7H
Operator (as registered with the OOG) Northeast Natural Energy LLC
Address 707 Virginia St. Suite 1200 City Charleston State WV Zip 25301

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4395369.4 Easting 568194.3
Landing Point of Curve Northing 4395160.3 Easting 567674.3
Bottom Hole Northing 4396879.0 Easting 566389.5

Elevation (ft) 1,430' 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

Drilling 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 Based Mud for Horizontal Section; BIO-BASE 365, CALCIUM CHLORIDE POWDER, G-SEAL PLUS, HRP, LIME, M-I WATE (BARITE), M-I-X II MEDIUM,
MEGADRIL P SYSTEM, MEGADRIL P SYSTEM RENTAL, MEGAMUL, SAFE-CARB 250, VERSATHIN HF, VERSAWET, VG-PLUS, VINSEAL MEDIUM, WALNUT NUT PLUG MEDIUM

Date permit issued 07/18/2014 Date drilling commenced 10/28/2014 Date drilling ceased 02/02/2015
Date completion activities began 6/05/2015 Date completion activities ceased 6/25/2015
Verbal plugging (Y/N) _____ Date permission granted _____ Granted by _____

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

Freshwater depth(s) ft 1,243' Open mine(s) (Y/N) depths N
Salt water depth(s) ft 2,510' Void(s) encountered (Y/N) depths N
Coal depth(s) ft 600', 1,200' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Received
Office of Oil & Gas

OCT 07 2015

Reviewed by:

10/30/2015

API 47-061 - 01675 Farm name Coastal Forest Resources Company Well number 7H

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/ N) * Provide details below*
Conductor	30	24	50'	N	N/A	N/A	Y to surface
Surface	17.5	13 3/8	1,368'	N	54.5	N/A	Y to 30 BBLS
Coal							
Intermediate 1	12.25	9 5/8	2,763'	N	40	N/A	Y to 20 BBLS
Intermediate 2							
Intermediate 3							
Production	8.5	5.5	16,406'	N	20	N/A	Estimated top 2000'
Tubing							
Packer type and depth set							

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	4,500 psi ready mix	36.4		.75	27.27	CTS	48
Surface	Class A	1004	15.2	1.27	1,271	CTS	8
Coal							
Intermediate 1	Class A	880	15.2	1.26	1,074	CTS	8
Intermediate 2							
Intermediate 3							
Production	5050 Premium NE - 1.3% (I-3.3% MPA 170	3,212	14.5	1.17	2,661	Estimated 2,000'	48
Tubing							

Drillers TD (ft) 16,428' Loggers TD (ft) 16,403'

Deepest formation penetrated Marcellus Plug back to (ft) N/A

Plug back procedure _____

Kick off depth (ft) 6,683'

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 _____

Surface: bow spring centralizers every 3rd joint or aprox 120'

Intermediate: bow spring centralizers every 3rd joint or aprox 120'

Production: Hard bodied spiral centralizers every other joint or aprox 80' from TD to KOP then bow spring from KOP to 9 5/8" every forth joint or aprox 140'

WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS 36 Stages, 40 Shots per stage

Received
Office of Oil & Gas

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

OCT 07 2015

WERE TRACERS USED Yes No TYPE OF TRACER(S) USED _____

61-01675

Lithology/Formation	Top Depth in FT Name TVD	Bottom Depth in FT TVD	Top Depth in FT MD	Bottom Depth in FT MD	Describe rock type and record quantity and type of fluid (freshwater, brine, oil, gas, H2S, etc)
Sand/Shale/Silt	0	345			sand/shale/silt
Red Rock	345	355			red rock
Sand/Shale/Silt	355	2344			sand/shale/silt
Limestone	2344	2502			limestone
Big Injun	2502	2625			sandstone
Shale	2625	2850			shale
Silt/Shale	2850	3280			silt/shale
Grey Shale/Sandstone/Shale	3280	7750			shale/sandstone
Burkett	7750	7927	8138	8473	shale
Geneseo	7927	7972	8473	8564	shale
Tully	7972	8022	8564	8657	limestone
Hamilton	8022	8146	8657	8946	shale
Marcellus	8146	8181	8946	9089	shale
Cherry Valley	8181	8183	9089	9099	limestone
Lower Marcellus	8183		9099		shale

Received
Office of Oil & Gas
OCT 07 2015

10/30/2015

61-01675

ACTUAL WELLPATH REPORT (CSV version)
Prepared by Baker Hughes
Software System: WellArchitect® 4.0.1

REFERENCE WELLPATH IDENTIFICATION

Operator NORTHEAST NATURAL ENERGY, LLC
Area Monongalia County, WV
Field Monongalia
Facility Coastal Pad
Slot Slot 07
Well Coastal 7H
Wellbore Coastal 7H AWB
Wellpath Coastal 7H AWP Proj: 16428'
Sidetrack (none)

REPORT SETUP INFORMATION

Projection NAD83 / Lambert West Virginia SP, Northern Zone (4701), US feet
North Refe Grid
Scale 0.999942
Convergen 0.45° West
Software SWellArchitect® 4.0.1
User Stewdenk
Report Gei 2/5/2015 at 2:52:27 PM
DataBase: WA_Eastern/ev01.xml

WELLPATH Local	North	East	Easting	Northing	Latitude	Longitude
	[ft]	[ft]	[US ft]	[US ft]		
Slot Locati:	-18.7	-7	1770291	439841.3	39°42'19.680"12'16.225"W	
Facility Ref			1770298	439860	39°42'19.880"12'16.137"W	
Field Refer			1777686	440640.7	39°42'28.180"10'41.690"W	

WELLPATH DATUM

Calculator Minimum curvature
Horizontal Slot
Vertical Re Pioneer 63 (RKB)
MD Refere Pioneer 63 (RKB)
Field Vertii Mean Sea Level
Pioneer 63 18.00ft
Pioneer 63 1438.00ft
Pioneer 63 18.00ft
Section Or N 0.00, E 0.00 ft
Section Az: 323.00°

WELLPATH DATA † = interpolated/extrapolated station

Received
Office of Oil & Gas
OCT 07 2015

61-01675

CEMENT JOB REPORT



CUSTOMER NORTHEAST NATURAL ENER	DATE 29-OCT-14	F.R. # 10011113111	SERV. SUPV. Scott J Carson
LEASE & WELL NAME COASTAL 7H - API 47061016750000	LOCATION BLACKSVILLE	COUNTY-PARISH-BLOCK Monongalia West Virginia	
DISTRICT Clarksburg	DRILLING CONTRACTOR RIG #	TYPE OF JOB Surface	

SIZE & TYPE OF PLUGS	LIST-CSG-HARDWARE	MECHANICAL BARRIERS	MD	TVD	HANGER TYPES	MD	TVD
BJ Cement Plug, Rubber, Top 13-3/8	Guide Shoe, Cement Nose 13-3/8 i Float Collar, AI Flap, 13-3/8 - 8rd	NONE			NONE		

MATERIALS FURNISHED BY BJ	LAB REPORT NO.	PHYSICAL SLURRY PROPERTIES						
		SACKS OF CEMENT	SLURRY WGT PPG	SLURRY YLD FT	WATER GPS	PUMP TIME HR:MIN	Bbl SLURRY	Bbl MIX WATER
PROCESSED H2O W/MILL SEAL			8.34				175	
GEL/FLAKE			8.45				25	
H2O			8.34				10	
PREMIUM NE-1 2% CALCIUM +FLAKE	N/A	1,048	15.2	1.26	5.76	00:00	235	143.62
H2O			8.34				204	
400# SUGAR ON SIDE			0				0	
Available Mix Water	500 Bbl.	Available Displ. Fluid	500 Bbl.	TOTAL			649	143.62

HOLE			TBG-CSG-D.P.					COLLAR DEPTHS				
SIZE	% EXCESS	DEPTH	ID	OD	WGT.	TYPE	MD	TVD	GRADE	SHOE	FLOAT	STAGE
17.5	30	1402	12.62	13.38	54.5	CSG	1368	1368	J-55	1368	1320	1

LAST CASING				PKR-CMT RET-BR PL-LINER				PERF. DEPTH		TOP CONN		WELL FLUID	
ID	OD	WGT	TYPE	MD	TVD	BRAND & TYPE	DEPTH	TOP	BTM	SIZE	THREAD	TYPE	WGT.
23	24	95	CSG	50	50	NO PACKER				13.375	8 RD	OTHER	0

DISPL. VOLUME		DISPL. FLUID		CAL. PSI	CAL. MAX PSI	OP. MAX	MAX TBG PSI		MAX CSG PSI		MIX WATER
VOLUME	UOM	TYPE	WGT.	BUMP PLUG	TO REV.	SQ. PSI	RATED	Operator	RATED	Operator	
204	BBLS	H2O	8.34	470	0	0	0	0	2184	1000	TANK

EXPLANATION: TROUBLE SETTING TOOL, RUNNING CSG, ETC. PRIOR TO CEMENTING:

PRESSURE/RATE DETAIL					EXPLANATION		
TIME HR:MIN.	PRESSURE - PSI		RATE BPM	Bbl. FLUID PUMPED	FLUID TYPE	SAFETY MEETING: BJ CREW <input checked="" type="checkbox"/> CO. REP. <input checked="" type="checkbox"/>	
	PIPE	ANNULUS				TEST LINES	2670 PSI
						CIRCULATING WELL - RIG	BJ <input checked="" type="checkbox"/>
23:50						ARRIVE AT LOCATION 10-28-2014 LOCATION TIME 00:00 10-29-2014	
00:15						10-29-2014 PRE-JOB RIG-IN SAFETY MEETING	
00:30						RIG-IN	
01:45						PRE-JOB SAFETY MEETING	
02:15	100		5	5	H2O	LINE-FILL	
02:17	0				H2O	PRESSURE TEST 2670#	
02:19	150		6.4	180	H2O/MILL S	WATER AHEAD	
02:47	190		5.4	25	GEL/FLAKE	PRE-FLUSH	
02:52	200		5.4	10	H2O	SPACER	
02:54	350		5.2	227	SLURRY	15.2# PREMIUM NE-1 2% CALCIUM 300# FLAKE	
03:37	0					SHUT-DOWN RELEASE PLUG	
03:39	400		6.3	208	H2O	START DISPLACMENT	
04:12	750					SHUT-DOWN	
04:17	0					BLEED-OFF PRESSURE	
04:18	0					CLOSE-IN	
04:20						POST-JOB RIG-OUT SAFETY MEETING	

Received
Office of Oil & Gas
OCT 07 2015

10/30/2015

61-01675

CEMENT JOB REPORT



PRESSURE/RATE DETAIL						EXPLANATION		
TIME HR:MIN.	PRESSURE - PSI		RATE BPM	Bbl. FLUID PUMPED	FLUID TYPE	SAFETY MEETING: BJ CREW <input checked="" type="checkbox"/> CO. REP. <input checked="" type="checkbox"/>		
	PIPE	ANNULUS				TEST LINES 2670 PSI		
04:30						CIRCULATING WELL - RIG <input type="checkbox"/> BJ <input checked="" type="checkbox"/>		
						RIG-OUT		
	BUMPED PLUG	PSI TO BUMP PLUG	TEST FLOAT EQUIP.	BBL.CMT RETURNS/ REVERSED	TOTAL BBL. PUMPED	PSI LEFT ON CSG	SPOT TOP OUT CEMENT	SERVICE SUPERVISOR SIGNATURE:
	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	470	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	30	647	0	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	

Received
 Office of Oil & Gas
 OCT 07 2015

61-01675

CEMENT JOB REPORT



CUSTOMER NORTHEAST NATURAL ENER		DATE 01-NOV-14		F.R. # 1001114278		SERV. SUPV. Charles M Gray							
LEASE & WELL NAME COASTAL 7H - API 47061016750000			LOCATION BLACKSVILLE			COUNTY-PARISH-BLOCK Monongalia West Virginia							
DISTRICT Clarksburg		DRILLING CONTRACTOR RIG # PERFORMANCE # 1				TYPE OF JOB Intermediate							
SIZE & TYPE OF PLUGS		LIST-CSG-HARDWARE		MECHANICAL BARRIERS		MD	TVD	HANGER TYPES		MD	TVD		
BJ Cement Plug, Rubber, Top 9-5/8		Float Shoe 9-5/8 - 8rd Float Collar, AI Flap, 9-5/8 - 8rd											
MATERIALS FURNISHED BY BJ				LAB REPORT NO.		PHYSICAL SLURRY PROPERTIES							
						SACKS OF CEMENT	SLURRY WGT PPG	SLURRY YLD FT	WATER GPS	PUMP TIME HR:MIN	Bbl SLURRY	Bbl MIX WATER	
GELLED H2O							8.43				25		
PREMIUM NE + 2% CACL H2O				EST.		880	15.2	1.27	5.77	04:17	198	120.26	
200 LB GRANULATED SUGAR (ON THE SIDE)							8.34				208		
Available Mix Water 1000 Bbl.				Available Displ. Fluid 750 Bbl.						TOTAL	431	120.26	
HOLE			TBG-CSG-D.P.						COLLAR DEPTHS				
SIZE	% EXCESS	DEPTH	ID	OD	WGT.	TYPE	MD	TVD	GRADE	SHOE	FLOAT	STAGE	
12.25		2850	8.835	9.625	40	CSG	2762	2762	J-55	2762	2742		
LAST CASING			PKR-CMT RET-BR PL-LINER			PERF. DEPTH			TOP CONN		WELL FLUID		
ID	OD	WGT	TYPE	MD	TVD	BRAND & TYPE	DEPTH	TOP	BTM	SIZE	THREAD	TYPE	WGT.
13.	13.38	55.	CSG	1368	1368	NO PACKER	0	0	0	9.625	8RD	OTHER	0
DISPL. VOLUME		DISPL. FLUID		CAL. PSI	CAL. MAX PSI	OP. MAX	MAX TBG PSI		MAX CSG PSI		MIX WATER		
VOLUME	UOM	TYPE	WGT.	BUMP PLUG	TO REV.	SQ. PSI	RATED	Operator	RATED	Operator			
208	BBLS	H2O	8.34	980	0	0	0	0	3160	1500	TANK		

EXPLANATION: TROUBLE SETTING TOOL, RUNNING CSG, ETC. PRIOR TO CEMENTING:

PRESSURE/RATE DETAIL						EXPLANATION	
TIME HR:MIN.	PRESSURE - PSI		RATE BPM	Bbl. FLUID PUMPED	FLUID TYPE	SAFETY MEETING: BJ CREW <input checked="" type="checkbox"/> CO. REP. <input checked="" type="checkbox"/>	
	PIPE	ANNULUS				TEST LINES	2800 PSI
						CIRCULATING WELL - RIG	BJ <input checked="" type="checkbox"/>
08:30	0	0	0	0		ARRIVE ON LOCATION (LOC TIME 9 AM)	
09:30	0	0	0	0		PRE RIG IN MEETING	
11:50	0	0	0	0		PRE JOB SAFETY MEETING	
12:03	200	0	5.8	5	P/W	LINE FILL	
12:05	2800	0	1	1	P/W	PRESSURE TEST LINES	
12:06	280	0	7.2	225	P/W	PROCESSED H2O AHEAD	
12:09	0	0	0	0		SHUTDOWN, SWITCH TANKS DUE TO ROCKS IN TANK	
12:32	310	0	7.2		P/W	RESUME WATER AHEAD	
13:00	180	0	5.8	25	GEL H2O	6% PREFLUSH	
13:04	185	0	5.8	10	H2O	WATER SPACER	
13:07	270	0	5.8	194	SLURRY	PREMIUM NE + 2% CACL	
13:34	0	0	0	0		SHUTDOWN, RELEASE PLUG	
13:35	270	0	7.2	0	H2O	START DISPLACEMENT	
14:11	1300	0	0	208	H2O	PLUG DOWN	
14:15	0	0	0	0		CHECK FLOAT - FLOAT HELD (1/2 BBL BACK)	
14:20	0	0	0	0		PRE RIG OUT MEETING	

Received
Office of Oil & Gas
OCT 07 2015

61-01675

CEMENT JOB REPORT



PRESSURE/RATE DETAIL						EXPLANATION		
TIME HR:MIN.	PRESSURE - PSI		RATE BPM	Bbl. FLUID PUMPED	FLUID TYPE	SAFETY MEETING: BJ CREW <input checked="" type="checkbox"/> CO. REP. <input checked="" type="checkbox"/>		
	PIPE	ANNULUS				TEST LINES 2800 PSI		
						CIRCULATING WELL - RIG <input type="checkbox"/> BJ <input checked="" type="checkbox"/>		
BUMPED PLUG	PSI TO BUMP PLUG	TEST FLOAT EQUIP.	BBL.CMT RETURNS/ REVERSED	TOTAL BBL. PUMPED	PSI LEFT ON CSG	SPOT TOP OUT CEMENT	SERVICE SUPERVISOR SIGNATURE:	
<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	1020	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	20	662	0	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N		

Received
 Office of Oil & Gas
 OCT 07 2015

61-01675

CEMENT JOB REPORT



CUSTOMER NORTHEAST NATURAL ENER		DATE 03-FEB-15	F.R. # 991010008	SERV. SUPV. Brian Lough									
LEASE & WELL NAME COASTAL - API 47061016750000		LOCATION CONDIT-RAGTOWN		COUNTY-PARISH-BLOCK Monongalia West Virginia									
DISTRICT Clarksburg		DRILLING CONTRACTOR RIG # PIONEER 63		TYPE OF JOB Long String									
SIZE & TYPE OF PLUGS		LIST-CSG-HARDWARE		MECHANICAL BARRIERS		MD	TVD	HANGER TYPES	MD	TVD			
5-1/2" Top Cem Plug, Nitrile cvr, Phr		Guide Shoe, Cement Nose, 5-1/2 i Float Collar, Al Flap, 5 - 8rd											
PHYSICAL SLURRY PROPERTIES													
MATERIALS FURNISHED BY BJ		LAB REPORT NO.		SACKS OF CEMENT	SLURRY WGT PPG	SLURRY YLD FT	WATER GPS	PUMP TIME HR:MIN	Bbl SLURRY	Bbl MIX WATER			
H2O					8.34					5			
ULTRA FLUSH HV					13					100			
50/50 POZ CLASS A(PREM NE-1)+ R-3_MPA-170				3,212	14.5	1.17	5.15	05:23	669	393.67			
H2O WITH RETARDER					8.4					10			
FRESH WATER					8.34					354			
200 LBS OF SUGAR THE SIDE					8.34					30			
Available Mix Water		500	Bbl.	Available Displ. Fluid		500	Bbl.	TOTAL		1168 393.67			
HOLE			TBG-CSG-D.P.					COLLAR DEPTHS					
SIZE	% EXCESS	DEPTH	ID	OD	WGT.	TYPE	MD	TVD	GRADE	SHOE	FLOAT	STAGE	
8.75	10	16428	4.778	5.5	20	CSG	16428		P-110	16428	16418		
LAST CASING			PKR-CMT RET-BR PL-LINER			PERF. DEPTH		TOP CONN		WELL FLUID			
ID	OD	WGT.	TYPE	MD	TVD	BRAND & TYPE	DEPTH	TOP	BTM	SIZE	THREAD	TYPE	WGT.
8.8	9.625	40	CSG	2762	2762					5.5	BUTT	SYNTHETIC MUD	12.5
DISPL. VOLUME		DISPL. FLUID		CAL. PSI	CAL. MAX PSI	OP. MAX	MAX TBG PSI		MAX CSG PSI		MIX WATER		
VOLUME	UOM	TYPE	WGT.	BUMP PLUG	TO REV.	SQ. PSI	RATED	Operator	RATED	Operator			
364	BBLS	FRESH WATER	8.34	4000	0	0	0	0	10118	5000	TANK		
EXPLANATION: TROUBLE SETTING TOOL, RUNNING CSG, ETC. PRIOR TO CEMENTING:													
PRESSURE/RATE DETAIL						EXPLANATION							
TIME HR:MIN.	PRESSURE - PSI		RATE BPM	Bbl. FLUID PUMPED	FLUID TYPE	SAFETY MEETING: BJ CREW <input checked="" type="checkbox"/> CO. REP. <input checked="" type="checkbox"/>							
	PIPE	ANNULUS				TEST LINES 7025 PSI							
						CIRCULATING WELL - RIG <input checked="" type="checkbox"/> BJ <input checked="" type="checkbox"/>							
06:00						ARRIVE ON LOCATION. JOB TIME 0600 HOURS							
06:01						STAGE EQUIPMENT ON LOCATION							
10:45						SPOT EQUIPMENT							
11:00						SAFETY MEETING WITH BHI CREW							
11:10						RIG INTO WELL & TANKS							
13:30						SAFETY MEETING WITH RIG CREW & CO. MAN							
13:55						RIG IN HEAD & MANIFOLD							
14:44	800		5.5	5	H2O	LINE FILL							
14:45	0					SHUT DOWN TO FIX LEAK AT CASING COLLAR & SUB							
15:39	0		1	1	H2O	PRESSURE TEST BHI IRON TO 7025 PSI							
15:41	725		4.5	100	PRE FLUS	ULTRA FLUSH HV							
16:01	850		7	665	CEMENT	3212 SACKS OF CLASS A 50/50 POZ (PREM NE-1)+.3% BWOC R-3+.2% BWOC MPA-170. TEMP 46 DEGREES f							
17:40	0		6	10	H2O	SHUT DOWN / FLUSH LINES / SPOT RETARDER / DROP PLUG							
17:43	1035		7	10	H2O	HALLIBURTON RETARDER							
17:45	4045		7	354	H2O	FRESH WATER DISPLACEMENT							
18:37	3610		4		H2O	LAND PLUG TO 4200							

Received
Office of Oil & Gas

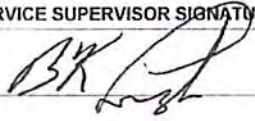
OCT 07 2015

10/30/2015

61-01675

CEMENT JOB REPORT



PRESSURE/RATE DETAIL					EXPLANATION		
TIME HR:MIN.	PRESSURE - PSI		RATE BPM	Bbl. FLUID PUMPED	FLUID TYPE	SAFETY MEETING: BJ CREW <input checked="" type="checkbox"/> CO. REP. <input checked="" type="checkbox"/>	
	PIPE	ANNULUS				TEST LINES	7025 PSI
18:42	0					CIRCULATING WELL - RIG <input checked="" type="checkbox"/> BJ <input checked="" type="checkbox"/>	
18:45						RELEASE PRESSURE / CHECK FLOATS	
						END JOB	
BUMPED PLUG	PSI TO BUMP PLUG	TEST FLOAT EQUIP.	BBL.CMT RETURNS/ REVERSED	TOTAL BBL. PUMPED	PSI LEFT ON CSG	SPOT TOP OUT CEMENT	SERVICE SUPERVISOR SIGNATURE:
<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	4000	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	0	1148	0	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	

Received
Office of Oil & Gas
OCT 07 2015

61-01675

Perforation Record

Stage Number	Report Date	Perforated from MD ft	Perforated to MD ft	Number of Perforations	Formation
1	6/11/2015	16,325	16,166	40	Marcellus Shale
2	6/11/2015	16,123	15,964	40	Marcellus Shale
3	6/12/2015	15,924	15,762	40	Marcellus Shale
4	6/12/2015	15,720	15,561	40	Marcellus Shale
5	6/12/2015	15,518	15,359	40	Marcellus Shale
6	6/13/2015	15,317	15,158	40	Marcellus Shale
7	6/13/2015	15,115	14,956	40	Marcellus Shale
8	6/13/2015	14,914	14,754	40	Marcellus Shale
9	6/14/2015	14,712	14,553	40	Marcellus Shale
10	6/15/2015	14,510	14,553	40	Marcellus Shale
11	6/15/2015	14,309	14,150	40	Marcellus Shale
12	6/15/2015	14,107	13,949	40	Marcellus Shale
13	6/16/2015	13,906	13,746	40	Marcellus Shale
14	6/16/2015	13,704	13,545	40	Marcellus Shale
15	6/16/2015	13,502	13,343	40	Marcellus Shale
16	6/17/2015	13,301	13,142	40	Marcellus Shale
17	6/17/2015	13,099	12,940	40	Marcellus Shale
18	6/17/2015	12,898	12,738	40	Marcellus Shale
19	6/17/2015	12,696	12,541	40	Marcellus Shale
20	6/18/2015	12,496	12,335	40	Marcellus Shale
21	6/18/2015	12,293	12,134	40	Marcellus Shale
22	6/18/2015	12,091	11,932	40	Marcellus Shale
23	6/19/2015	11,890	11,730	40	Marcellus Shale
24	6/19/2015	11,688	11,529	40	Marcellus Shale
25	6/19/2015	11,486	11,327	40	Marcellus Shale
26	6/22/2015	11,285	11,126	40	Marcellus Shale
27	6/23/2015	11,083	10,924	40	Marcellus Shale
28	6/23/2015	10,882	10,722	40	Marcellus Shale
29	6/23/2015	10,680	10,521	40	Marcellus Shale
30	6/24/2015	10,478	10,319	40	Marcellus Shale
31	6/24/2015	10,277	10,118	40	Marcellus Shale
32	6/24/2015	10,075	9,916	40	Marcellus Shale
33	6/25/2015	9,874	9,712	40	Marcellus Shale
34	6/25/2015	9,672	9,513	40	Marcellus Shale
35	6/25/2015	9,470	9,311	40	Marcellus Shale
36	6/26/2015	9,271	9,110	40	Marcellus Shale

Received
Office of Oil & Gas
OCT 07 2015

10/30/2015

61-01675

Stimulation Record							
Stage Number	Report Date	Avg Treating Rate (BPM)	Avg Treating Pressure (psi)	Breakdown Pressure (psi)	ISIP (psi)	Total Proppant Amount (lbs)	Total Clean Fluid (Bbls)
1	6/11/2015	78	8,355	7,859	4,063	395,660	6,989
2	6/11/2015	88	9,067	6,698	5,274	307,140	7,259
3	6/12/2015	91	9,081	6,269	4,685	403,600	6,871
4	6/12/2015	85	8,493	7,522	5,368	379,620	6,206
5	6/12/2015	96	8,978	6,887	4,594	401,254	6,899
6	6/13/2015	94	8,977	6,092	4,509	399,986	7,104
7	6/13/2015	76	8,839	6,920	4,396	399,780	7,735
8	6/13/2015	94	8,822	6,500	5,482	400,540	6,317
9	6/14/2015	87	8,691	6,617	5,445	399,980	6,451
10	6/15/2015	78	8,619	4,877	5,512	399,700	7,714
11	6/15/2015	85	8,550	6,760	5,507	401,000	6,341
12	6/15/2015	87	8,895	6,861	4,954	401,816	7,232
13	6/16/2015	90	8,827	6,019	4,561	400,020	6,424
14	6/16/2015	80	8,928	6,939	5,530	404,120	6,477
15	6/16/2015	84	8,823	6,207	5,778	358,060	6,597
16	6/17/2015	93	8,716	5,900	5,274	400,440	6,068
17	6/17/2015	86	8,554	6,048	5,816	346,760	6,081
18	6/17/2015	80	8,584	7,535	4,438	400,080	6,625
19	6/17/2015	77	8,914	8,150	5,463	401,960	7,613
20	6/18/2015	94	8,858	7,346	5,162	400,880	7,822
21	6/18/2015	78	8,395	8,384	4,574	399,040	6,733
22	6/18/2015	89	8,632	7,831	4,699	395,180	6,297
23	6/19/2015	91	8,636	8,336	4,636	401,420	6,099
24	6/19/2015	87	8,406	8,521	4,852	397,540	6,178
25	6/19/2015	86	8,511	7,059	4,919	400,940	6,593
26	6/22/2015	69	8,358	7,536	8,670	338,900	7,505
27	6/23/2015	81	8,433	7,200	NA	361,380	6,351
28	6/23/2015	82	8,712	8,447	5,265	398,500	7,168
29	6/23/2015	84	8,624	5,403	5,619	400,820	6,808
30	6/24/2015	86	8,505	5,608	4,954	398,360	6,205
31	6/24/2015	86	8,401	8,530	5,472	401,760	6,115
32	6/24/2015	92	8,781	5,300	5,230	397,580	6,046
33	6/25/2015	86	8,102	6,000	5,160	407,805	6,380
34	6/25/2015	89	8,780	9,250	5,208	404,340	8,881
35	6/25/2015	86	8,793	8,527	5,023	399,860	6,558
36	6/26/2015	88	8,791	8,000	5,678	318,040	6,223

Received
Office of Oil & Gas
OCT 07 2015

10/30/2015

61-01675

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	6/8/2015
Job End Date:	6/26/2015
State:	West Virginia
County:	Monongalia
API Number:	47-061-01675-00-00
Operator Name:	Northeast Natural Energy LLC
Well Name and Number:	Coastal 7H
Longitude:	-80.20457000
Latitude:	39.70545900
Datum:	NAD83
Federal/Tribal Well:	NO
True Vertical Depth:	8,218
Total Base Water Volume (gal):	10,800,930
Total Base Non Water Volume:	0



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
Proppant Transport	Schlumberger	Corrosion inhibitor, Scale inhibitor, Biocide, AntiFoam Agent, Acid Breaker, Gelling Agent, Friction Reducer, Crosslinker, Iron Control Agent, Proppi	Water (Including Mix Water Supplied by Client)*	NA		86.08564	
Received			Quartz, Crystalline silica	14808-60-7	98.84937	13.75426	
Office of Oil & Gas			Hydrochloric acid	7647-01-0	0.64340	0.08952	
			Ammonium sulfate	7783-20-2	0.16538	0.02301	
			Acrylamide, 2-acrylamido-2-methylpropanesulfonic acid, sodium salt, polymer	38193-60-1	0.12206	0.01698	
			Guar gum	9000-30-0	0.10795	0.01502	
			Glutaraldehyde	111-30-8	0.03232	0.00450	
			Polymer of 2-acrylamido-2-methylpropanesulfonic acid sodium salt and methyl acrylate	136793-29-8	0.01308	0.00182	
			Diammonium peroxidisulphate	7727-54-0	0.00970	0.00135	
			Urea	57-13-6	0.00803	0.00112	

Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS.

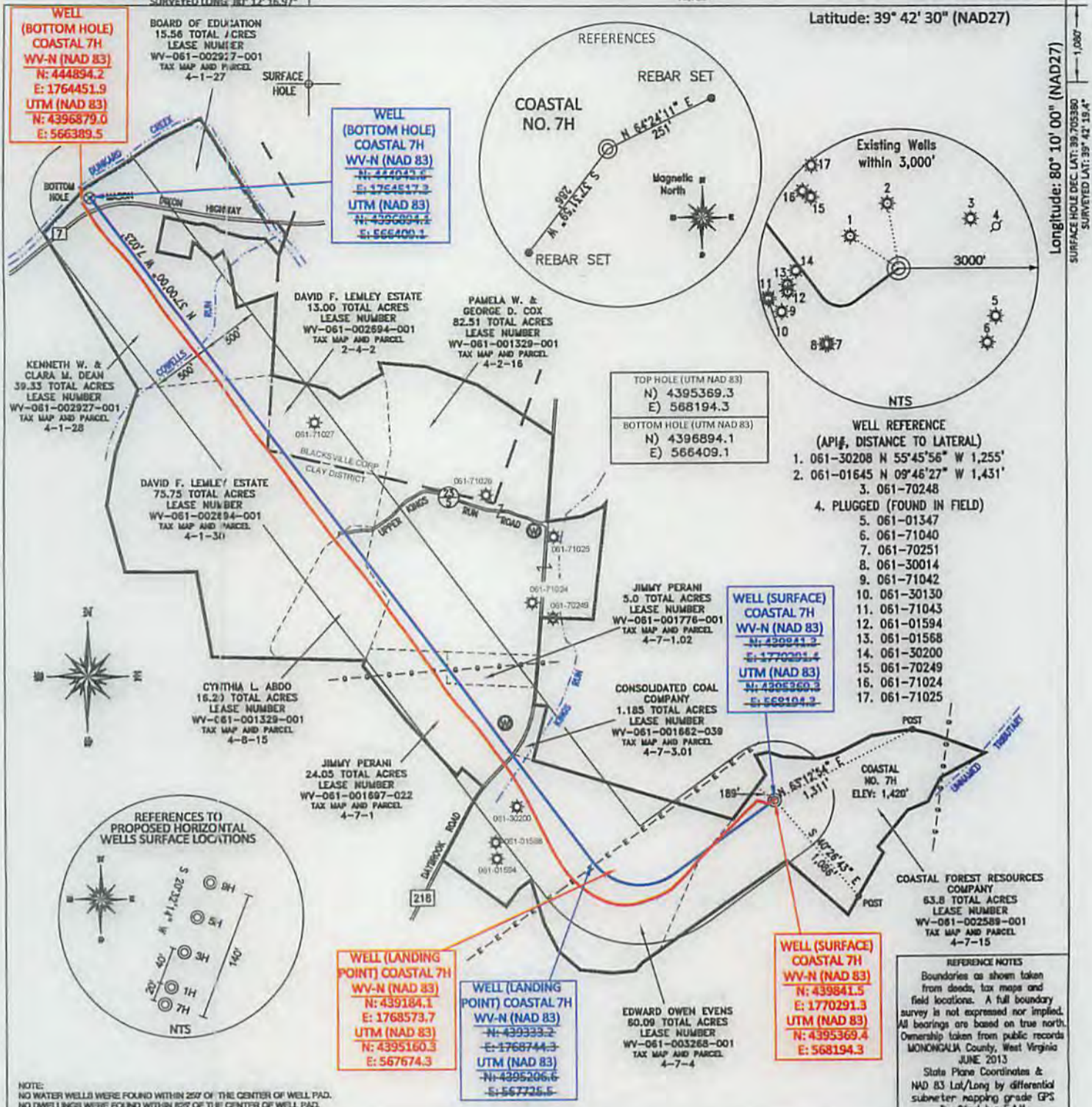
61-01675

					68171-29-9	0.00765	0.00106
				Ethanol, 2,2,2'-nitrioltris-, 1,1',1''-tris(dihydrogen phosphate), sodium salt			
				Alkyl(C12-16) dimethylbenzyl ammonium chloride	68424-85-1	0.00577	0.00080
				Sodium erythorbate	6381-77-7	0.00394	0.00055
				Trisodium ortho phosphate	7601-54-9	0.00336	0.00047
				Potassium borate	1332-77-0	0.00326	0.00045
				Methanol	67-56-1	0.00241	0.00034
				Polypropylene glycol	25322-69-4	0.00243	0.00034
				Non-crystalline silica (impurity)	7631-86-9	0.00194	0.00027
				Sodium sulfate	7757-82-6	0.00187	0.00026
				Fatty acids, tall-oil	61790-12-3	0.00145	0.00020
				Vinylidene chloride/methylacrylate copolymer	25038-72-6	0.00128	0.00018
				Potassium hydroxide	1310-58-3	0.00120	0.00017
				Thiourea, polymer with formaldehyde and 1-phenylethanone	68527-49-1	0.00120	0.00017
				Glycerol	56-81-5	0.00106	0.00015
				Ethylene Glycol	107-21-1	0.00096	0.00013
				Ethanol	64-17-5	0.00069	0.00010
				Alcohols, C14-15, ethoxylated (7EO)	68951-67-7	0.00057	0.00008
				2-propenamid	79-06-1	0.00040	0.00006
				Propargyl alcohol	107-19-7	0.00038	0.00005
				Tetrasodium ethylenediaminetetraacetate	64-02-8	0.00021	0.00003
				Hexadec-1-ene	629-73-2	0.00013	0.00002
				Dimethyl siloxanes and silicones	63148-62-9	0.00011	0.00002
				Magnesium silicate hydrate (alc)	14807-96-6	0.00004	0.00001
				1-Octadecene (C18)	112-88-9	0.00006	0.00001
				poly(tetrafluoroethylene)	9002-84-0	0.00002	
				Copper(II) sulfate	7758-98-7		
				Decamethyl cyclopentasiloxane	641-02-6	0.00001	
				Siloxanes and silicones, dimethyl, reaction products with silica	67762-90-7	0.00002	
				Formaldehyde	50-00-0	0.00001	
				Octamethylcyclotetrasiloxane	656-67-2	0.00001	
				Dodecamethylcyclohexasiloxane	640-97-6		

Received
Office of Oil & Gas
OCT 07 2015

* Total Water Volume sources may include fresh water, produced water, and/or recycled water
** Information is based on the maximum potential for concentration and thus the total may be over 100%

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)



NOTE: NO WATER WELLS WERE FOUND WITHIN 250' OF THE CENTER OF WELL PAD. NO DWELLINGS WERE FOUND WITHIN 625' OF THE CENTER OF WELL PAD.

FILE #: NNE12
 DRAWING #: 2347
 SCALE: PLAT: 1" = 120'
TRK: 1" = 200'
 MINIMUM DEGREE OF ACCURACY: 1/200
 PROVEN SOURCE OF ELEVATION: SUBMETER MAPPING GRADE GPS

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: [Signature]
 L.L.S. #2124 : Ernest J. Benchek III



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
WVDEP OFFICE OF OIL & GAS
 601 57TH STREET
 CHARLESTON, WV 25304

Well Type: Oil Waste Diposal Production Deep
 Gas Liquid Injection Storage Shallow

WATERSHED: DUNKARD CREEK ELEVATION: 1,420'
 COUNTY/DISTRICT: MONONGALIA / CLAY QUADRANGLE: BLACKSVILLE
 SURFACE OWNER: COASTAL FOREST RESOURCES COMPANY ACREAGE: 63.8 +/- 10/30/2015
 OIL & GAS ROYALTY OWNER: WACO OIL AND GAS, ET AL ACREAGE: 396.475 +/-
 LEASE NUMBERS: _____

DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
 PLUG OFF FORMATION PERFORATE NEW FORMATION PLUG & ABANDON
 CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY): _____

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: TVD: 8,216.76' TMD: 16,428'
 WELL OPERATOR: NORTHEAST NATURAL ENERGY LLC DESIGNATED AGENT: JOHN ADAMS
 ADDRESS: 707 VIRGINIA STREET EAST, SUITE 1200 ADDRESS: 707 VIRGINIA STREET EAST, SUITE 1200
 CITY: CHARLESTON STATE: WV ZIP CODE: 25301 CITY: CHARLESTON STATE: WV ZIP CODE: 25301