

pm

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

API 47 - 095 - 02177 County TYLER District ELLSWORTH
Quad PORTER FALLS Pad Name BALL Field/Pool Name MARCELLUS
Farm name BALL, ROBERT D. & SHERRY A. Well Number BALL 9H
Operator (as registered with the OOG) STATOIL USA ONSHORE PROPERTIES INC.
Address 2103 CITYWEST BLVD., STE 800 City HOUSTON State TX Zip 77042

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4372954.19' Easting 520978.32'
Landing Point of Curve Northing 4373166.60' Easting 520517.16'
Bottom Hole Northing 4375197.59' Easting 519928.46'

Elevation (ft) 1169 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)
Surface - Drill Water; Intermediate - KCl/Polymer; Production - Cyberdrill

Date permit issued 04/21/2014 Date drilling commenced 03/03/2015 Date drilling ceased 04/26/15
Date completion activities began 06/30/15 Date completion activities ceased 07/15/15
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 763' Estimated Open mine(s) (Y/N) depths _____
Salt water depth(s) ft 2150' Estimated Void(s) encountered (Y/N) depths _____
Coal depth(s) ft N Cavern(s) encountered (Y/N) depths _____
Is coal being mined in area (Y/N) N

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DEC 03 2015
Reviewed by: DMH
01/08/2016

API 47-095 - 02177 Farm name BALL, ROBERT D. & SHERRY A. Well number BALL 9H

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	24	20	120'	NEW	94#		
Surface	17 1/2"	13 3/8	463'	NEW	J-55; 54.5#		Y
Coal							
Intermediate 1	12 1/4"	9 5/8	2619'	NEW	J-55; 36#		Y
Intermediate 2							
Intermediate 3							
Production	8 3/4"	5 1/2	13637'	NEW	P-110; 20#		Y
Tubing	45/8"	2 3/8	6355'	NEW	L-80		
Packer type and depth set		PLT Packer set at 6350'					

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	CLASS A	190	15.8	2.31		SURFACE	> 8HRS
Coal							
Intermediate 1	CLASS A	460	15.8	2.31		SURFACE	> 8HRS
Intermediate 2							
Intermediate 3							
Production	CLASS A	2396	13.5	1.29		SURFACE	> 8HRS
Tubing							

Drillers TD (ft) 14866' Loggers TD (ft) 14866'
 Deepest formation penetrated Marcellus Plug back to (ft) n/a
 Plug back procedure _____

Kick off depth (ft) _____

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: 1 Centralizer with stop collar 10 ft above floatshoe. One single bow every joint to 100ft below surface.
 Intermediate: 1 centralizer with stop collar 10 ft above float shoe. 1 centralizer with stop collar 10 ft above float collar. 1 centralizer every joint for the first 15 joints. One centralizer every 3 joints to 100 ft below surface.
 Production: 1 centralizer w/ stop collar 10ft above shoe. 1 centralizer 10ft above float collar. 1 centralizer every joint (floating) until KOP 1 centralizer every 3 joints (floating) until 200ft inside intermediate shoe. 1 centralizer 50ft below mandrel hanger

WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS _____

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

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

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PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
1	05/17/15	14567	14413	48	MARCELLUS
2	05/22/15	14343	14163	48	MARCELLUS
3	05/22/15	14093	13913	48	MARCELLUS
4	05/23/15	13843	13666	48	MARCELLUS
5	05/23/15	13593	13413	48	MARCELLUS
6	05/24/15	13343	13163	48	MARCELLUS
7	05/31/15	13095	12915	48	MARCELLUS
8	05/31/15	12843	12663	48	MARCELLUS
9	06/01/15	12598	12415	48	MARCELLUS
10	06/01/15	12343	12163	48	MARCELLUS
11	06/02/15	12093	11913	48	MARCELLUS
12	06/03/15	11843	11668	48	MARCELLUS
13	06/04/15	11595	11425	48	MARCELLUS
14	06/04/15	11345	11165	48	MARCELLUS
15	06/05/15	11095	10920	48	MARCELLUS
16	06/05/15	10868	10665	48	MARCELLUS

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
1	05/17/15	85	7569	7265	NA	431400	7387	
2	05/22/15	85.1	7731	7023	4688	441700	7563	
3	05/22/15	83.1	8079	6967	4710	441700	7592	
4	05/23/15	83.4	7913	6829	5142	396800	7038	
5	05/23/15	82.1	7830	6359	3874	441700	7385	
6	05/24/15	66.2	8142	6648	7880	419200	8012	
7	05/31/15	84.8	7925	6351	4974	441700	6907	
8	05/31/15	78.8	7563	6931	5010	393400	7092	
9	06/01/15	85	7819	6985	4827	332500	6674	
10	06/01/15	83.7	7634	6782	4923	441700	7334	
11	06/02/15	75.1	7966	7586	NA	441700	7385	
12	06/03/15	80.4	7573	7091	NA	344700	6081	
13	06/04/15	75.2	7091	6582	3857	387000	7090	
14	06/04/15	75.2	7039	6582	4684	387100	7640	
15	06/05/15	75.2	7205	9720	4823	387200	7097	
16	06/05/15	75	2711	6402	5857	290600	6783	

Please insert additional pages as applicable.

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Environmental Protection
01/08/2016

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Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
17	07/06/15	10595	10415	48	MARCELLUS
18	07/06/15	10345	10165	48	MARCELLUS
19	07/07/15	10095	9915	48	MARCELLUS
20	07/08/15	9842	9670	48	MARCELLUS
21	07/16/15	9593	9413	48	MARCELLUS
22	07/16/15	9343	9163	48	MARCELLUS
23	07/17/15	9093	8913	48	MARCELLUS
24	07/17/15	8843	8663	48	MARCELLUS
25	07/18/15	8593	8413	48	MARCELLUS
26	07/18/15	8343	8163	48	MARCELLUS
27	07/19/15	8093	7913	48	MARCELLUS

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
17	07/06/15	73.4	7344	7072	4289	387300	7244	
18	07/06/15	75.5	7388	7791	4926	346400	6812	
19	07/07/15	75.5	7444	7265	NA	334000	6503	
20	07/08/15	72.6	7359	7285	4875	347100	7157	
21	07/16/15	75	7347	7637	4651	387300	7491	
22	07/16/15	75	6935	8046	4979	387300	7522	
23	07/17/15	75	7089	7632	4899	387300	7549	
24	07/17/15	75	6514	7325	5111	387300	7420	
25	07/18/15	75	6881	7549	4600	387300	7438	
26	07/18/15	73	7177	7980	5587	387300	7668	
27	07/19/15	75	6536	6132	5372	387300	7298	

Please insert additional pages as applicable.

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PRODUCING FORMATION(S)	DEPTHS		
Marcellus	6888	TVD	7688 MD

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface _____ psi Bottom Hole _____ psi DURATION OF TEST _____ hrs

OPEN FLOW Gas _____ mcfpd Oil _____ bpd NGL _____ bpd Water _____ bpd GAS MEASURED BY Estimated Orifice Pilot

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, H ₂ S, ETC)
	0		0		
Big Injun	2253	2363	2263	2375	Sandstone
Weir	2527	2554	2540	2567	Sandstone/Siltstone
Berea	2711	2719	2724	2732	Sandstone
Gordon	2934	2972	2948	2986	Sandstone
Warren	3643	3683	3657	3697	Sandstone
Java	5145		5159		Shale/Silty Shale
West River	6731		7243		Limestone
Geneseo	6799		7421		Gray Shale
Tully	6829		7502		Limestone
Marcellus	6888		7688		Shale, Gas

Please insert additional pages as applicable.

Drilling Contractor Orion Drilling
Address _____ City _____ State _____ Zip _____

Logging Company HALLIBURTON
Address _____ City _____ State _____ Zip _____

Cementing Company HALLIBURTON
Address _____ City _____ State _____ Zip _____

Stimulating Company PRODUCERS SERVICE CORP
Address 109 S. GRAHAM STREET City ZANESVILLE State OH Zip 43701

Please insert additional pages as applicable.

Completed by Bekki Winfree Telephone 713-485-2640
Signature *Bekki Winfree* Title Sr. Regulatory Advisor-Marcellus Date 12/01/15

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

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Ohio Department of Oil and Gas
DEC 03 2015
WV Department of Environmental Protection
01/08/2016

1736.4' LATITUDE 39° 32' 30"

MINERAL OWNERSHIP

UNIT 1 MARY MAXINE WELCH 2-17-42 69.5 AC
UNIT 2 ALLEN SMITH ET. AL TM 2-17-14 3, 14, 4, 14, 9, 15, P/O 2-12-26, 71.75 AC
UNIT 3 JON AND MARY BLOD ET AL TM 2-17-40, P/O 2-17-19, 147 AC
UNIT 4 DEX USA, INC. ET AL TM 2-17-12, 14, 14, 1, 14, 2, 14, 5, 14, 6, 14, 7, 14, 8, 14, 10, P/O 2-17-19, 93.5 AC
UNIT 5 SHIBEN ESTATES, INC TM 2-12-27, 28, 29 & 2-17-18 1, 69.5 AC
UNIT 6 FLOYD E. LEWIS LIFED ET AL TM P/O 2-17-18, 60 AC
UNIT 7 S.A. SMITH & C. BURKE MORRIS TRUST ET AL TM 2-17-41, 40.5 AC
UNIT 8 JOSEPHINE CORRELL ET AL TM 2-18-11, 33.25 AC
UNIT 9 DEX USA, INC. ET AL TM 2-17-17, 30.21 AC
UNIT 10 CECIL AND MARGARET LANCASTER TM 2-12-25, 78.17 AC
UNIT 11 GLADYS MAYFIELD BOYD, ET AL P/O TM 2-12-26 24.08 AC

LEGEND

- ⊕ TOPD MAP POINT
- ⊗ EXISTING WELLS
- PRE-29 WELLS
- PLUGGED WELL
- MINERAL TRACT
- PARCEL LINES
- AS-DRILLED
- - - PROPOSED WELL
- ROAD
- STREAM

SURFACE LOC.

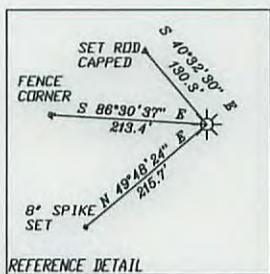
UTM 17-NAD 83 METERS
 N: 4372954.19'
 E: 520978.32'
 NAD 83
 LAT: 39.50595840
 LON: -80.75598584

LANDING POINT LOC.

UTM 17-NAD 83 METERS
 N: 4373166.60'
 E: 520517.16'
 NAD 83
 LAT: 39.50788340
 LON: -80.76134330

BOTTOM HOLE LOC.

UTM 17-NAD 83 METERS
 N: 4375197.59'
 E: 519928.46'
 NAD 83
 LAT: 39.52619748
 LON: -80.76813022



NOTES:

1. THERE ARE NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250' OF PROPOSED WELL.
2. THERE ARE NO EXISTING BUILDINGS WITHIN 625' OF PROPOSED WELL.
3. PROPOSED WELL IS GREATER THAN 100' FROM PERENNIAL STREAM, WETLAND, POND, RESERVOIR, OR LAKE.
4. THERE ARE NO NATIVE TROUT STREAMS WITHIN 300' OF PROPOSED WELL.
5. PROPOSED WELL IS GREATER THAN 1000' FROM SURFACE/GROUNDWATER INTAKE OR PUBLIC WATER SUPPLY
6. IT IS NOT THE INTENTION OF THIS PLAT TO REPRESENT SURVEYED LOCATIONS OF THE SURFACE OR MINERAL PARCELS DEPICTED HEREON. THE LOCATION OF THE BOUNDARY LINES, AS SHOWN, ARE BASED ON RECORD DEED DESCRIPTIONS, FIELD EVIDENCE FOUND, AND/OR TAX MAP POSITION, UNLESS OTHERWISE NOTED.



11283 Emerson Avenue Phone: (304) 464-5305
 Parkersburg, West Virginia 26104 Fax: (304) 464-4428

FILE#: 2146001
 DRAWING#: 2146001-STA-BALL, DWG
 SCALE: 1"=1500'
 ACCURACY: 1/2500
 ELEVATION: OPUS SOL, NAVD 88
 DATE: 10/23/15

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 RULES ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.
 SIGNED: *[Signature]* PS# 2141



WELL TYPE: OIL WASTE DISPOSAL PRODUCTION DEEP OPERATOR'S WELL# : BALL 9H
 GAS LIQUID INJECTION STORAGE SHALLOW API WELL#: 47 095 02177
 STATE COUNTY PERMIT

WATERSHED: ELK FORK COUNTY/DISTRICT: TYLER/ELLSWORTH QUADRANGLE: PORTLAND
 SURFACE OWNER: ROBERT D. BALL & SHERRY A. BALL ET. AL. ACREAGE: 69.5±
 OIL & GAS ROYALTY OWNER: MARY MAXINE WELCH ACREAGE: 693.4±
 DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
 PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG & ABANDON
 PAD ELEVATION: 1169' CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY):
 TARGET FORMATION MARCELLUS ESTIMATED DEPTH TVD. 6942' ± MD. 13,500'
 WELL OPERATOR STATOIL USA ONSHORE PROPERTIES INC. DESIGNATED AGENT RICHARD PYLES
 ADDRESS 2103 CITYWEST BLVD. STE. 800 ADDRESS 803 NASH ROAD
 CITY HOUSTON STATE TX ZIP CODE 77042 CITY MIDDLEBOURNE STATE WV ZIP CODE 26149

01/08/2016

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	5/17/2015
Job End Date:	6/19/2015
State:	West Virginia
County:	Tyler
API Number:	47-095-02177-00-00
Operator Name:	Statoil USA Onshore Properties Inc.
Well Name and Number:	Ball 9H
Longitude:	-80.75598600
Latitude:	39.50599580
Datum:	NAD83
Federal/Tribal Well:	NO
True Vertical Depth:	6,942
Total Base Water Volume (gal):	8,135,358
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
Water	Company 1	Carrier/Base Fluid	Water	7732-18-5	100.00000	85.36857	None
Sand (Proppant)	PSC	Proppant	Silica Substrate	NA	100.00000	13.26120	None
PRO GEL 4.0L	Producers Service Corp	Gelling Agent	Distillates (Petroleum), hydrotreated light	64742-47-8	65.00000	0.11339	None
			Guar Gum	9000-30-0	50.00000	0.08722	None
			Nonylphenol, Ethoxylate	9016-45-9	5.00000	0.00872	None
			Nonionic Surfactant	60828-78-6	5.00000	0.00872	None
			Nonionic Surfactant	60828-78-6	5.00000	0.00872	None
Hydrochloric Acid (7.5%)	Producers Service Corp	Acidizing	Hydrochloric Acid	7647-01-0	7.50000	0.08185	None
PRO FR 2000	Producers Service Corp	Friction Reducer	Petroleum Distillate	064742-47-8	24.00000	0.01702	None
MB 7530	Producers Service Corp	Biocide	Tetrahydro-3, 5-dimethyl-2H-1,3,5-thiadiazine-2-thione	533-74-4	24.00000	0.00773	None

			Sodium Hydroxide	1310-73-2	4.00000	0.00129	None
PROHIB II	Producers Service Corp	Inhibitor					
			Dimethylcocoamine, bis (chloroethyl)ether, diquatarnary ammonium salt	68607-28-3	60.00000	0.00061	None
			Glycol Ethers	111-76-2	40.00000	0.00041	None
			Ethylene Glycol	107-21-1	40.00000	0.00041	None
			Propargyl Alcohol	107-19-7	30.00000	0.00031	None
			Methanol	67-56-1	30.00000	0.00031	None
			Ethoxylated Nonylphenol	68412-54-4	10.00000	0.00010	None
PRO BREAKER 4	Producers Service Corp	Breaker					
			Ethylene Glycol	107-21-1	40.00000	0.00012	None
			Sucrose	57-50-1	40.00000	0.00012	None
			Hexamethylenetetramine	100-97-0	1.00000	0.00000	None
			Proprietary Ingredient	Proprietary	1.00000	0.00000	None
			Polyether Polyol	9003-11-6	1.00000	0.00000	None
			Proprietary Ingredient	Proprietary	1.00000	0.00000	None
			Sodium Bicarbonate	144-55-8	1.00000	0.00000	None
			Proprietary Ingredient	Proprietary	1.00000	0.00000	None

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.

* 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)

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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

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Production hole Air Mud Fresh Water Brine

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

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Salt water depth(s) ft 2150' Estimated Void(s) encountered (Y/N) depths N
Coal depth(s) ft N Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by: _____
DEC 08 2015
01/08/2016
Environmental

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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)
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Intermediate 3							
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Tubing							

Drillers TD (ft) 14866' Loggers TD (ft) 14866'
 Deepest formation penetrated Marcellus Plug back to (ft) n/a
 Plug back procedure _____

Kick off depth (ft) _____

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: 1 Centralizer with stop collar 10 ft above floatshoe. One single bow every joint to 100ft below surface.
 Intermediate: 1 centralizer with stop collar 10 ft above float shoe. 1 centralizer with stop collar 10 ft above float collar. 1 centralizer every joint for the first 15 joints. One centralizer every 3 joints to 100 ft below surface.
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WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS _____

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

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

RECEIVED
 CRISO OILFIELD GAS
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 WV Department of Environmental Protection
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4	05/23/15	13843	13666	48	MARCELLUS
5	05/23/15	13593	13413	48	MARCELLUS
6	05/24/15	13343	13163	48	MARCELLUS
7	05/31/15	13095	12915	48	MARCELLUS
8	05/31/15	12843	12663	48	MARCELLUS
9	06/01/15	12598	12415	48	MARCELLUS
10	06/01/15	12343	12163	48	MARCELLUS
11	06/02/15	12093	11913	48	MARCELLUS
12	06/03/15	11843	11668	48	MARCELLUS
13	06/04/15	11595	11425	48	MARCELLUS
14	06/04/15	11345	11165	48	MARCELLUS
15	06/05/15	11095	10920	48	MARCELLUS
16	06/05/15	10868	10665	48	MARCELLUS

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
1	05/17/15	85	7569	7265	NA	431400	7387	
2	05/22/15	85.1	7731	7023	4688	441700	7563	
3	05/22/15	83.1	8079	6967	4710	441700	7592	
4	05/23/15	83.4	7913	6829	5142	396800	7038	
5	05/23/15	82.1	7830	6359	3874	441700	7385	
6	05/24/15	66.2	8142	6648	7880	419200	8012	
7	05/31/15	84.8	7925	6351	4974	441700	6907	
8	05/31/15	78.8	7563	6931	5010	393400	7092	
9	06/01/15	85	7819	6985	4827	332500	6674	
10	06/01/15	83.7	7634	6782	4923	441700	7334	
11	06/02/15	75.1	7966	7586	NA	441700	7385	
12	06/03/15	80.4	7573	7091	NA	344700	6081	
13	06/04/15	75.2	7091	6582	3857	387000	7090	
14	06/04/15	75.2	7039	6582	4684	387100	7640	
15	06/05/15	75.2	7205	9720	4823	387200	7097	
16	06/05/15	75	2711	6402	5857	290600	6783	

Please insert additional pages as applicable.

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API 47-095 - 02177 Farm name BALL, ROBERT D. & SHERRY A. Well number BALL 9H

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
17	07/06/15	10595	10415	48	MARCELLUS
18	07/06/15	10345	10165	48	MARCELLUS
19	07/07/15	10095	9915	48	MARCELLUS
20	07/08/15	9842	9670	48	MARCELLUS
21	07/16/15	9593	9413	48	MARCELLUS
22	07/16/15	9343	9163	48	MARCELLUS
23	07/17/15	9093	8913	48	MARCELLUS
24	07/17/15	8843	8663	48	MARCELLUS
25	07/18/15	8593	8413	48	MARCELLUS
26	07/18/15	8343	8163	48	MARCELLUS
27	07/19/15	8093	7913	48	MARCELLUS

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
17	07/06/15	73.4	7344	7072	4289	387300	7244	
18	07/06/15	75.5	7388	7791	4926	346400	6812	
19	07/07/15	75.5	7444	7265	NA	334000	6503	
20	07/08/15	72.6	7359	7285	4875	347100	7157	
21	07/16/15	75	7347	7637	4651	387300	7491	
22	07/16/15	75	6935	8046	4979	387300	7522	
23	07/17/15	75	7089	7632	4899	387300	7549	
24	07/17/15	75	6514	7325	5111	387300	7420	
25	07/18/15	75	6881	7549	4600	387300	7438	
26	07/18/15	73	7177	7980	5587	387300	7668	
27	07/19/15	75	6536	6132	5372	387300	7298	

Please insert additional pages as applicable.

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01/08/2016

API 47- 095 - 02177 Farm name BALL, ROBERT D. & SHERRY A. Well number BALL 9H

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
Marcellus	6888	TVD 7688 MD

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface _____ psi Bottom Hole _____ psi DURATION OF TEST _____ hrs

OPEN FLOW Gas _____ mcfpd Oil _____ bpd NGL _____ bpd Water _____ bpd GAS MEASURED BY Estimated Orifice Pilot

LITHOLOGY/ FORMATION	TOP	BOTTOM	TOP	BOTTOM	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H ₂ S, ETC)
	DEPTH IN FT NAME TVD	DEPTH IN FT TVD	DEPTH IN FT MD	DEPTH IN FT MD	
	0		0		
Big Injun	2253	2363	2263	2375	Sandstone
Weir	2527	2554	2540	2567	Sandstone/Siltstone
Berea	2711	2719	2724	2732	Sandstone
Gordon	2934	2972	2948	2986	Sandstone
Warren	3643	3683	3657	3697	Sandstone
Java	5145		5159		Shale/Silty Shale
West River	6731		7243		Limestone
Geneseo	6799		7421		Gray Shale
Tully	6829		7502		Limestone
Marcellus	6888		7688		Shale, Gas

Please insert additional pages as applicable.

Drilling Contractor Orion Drilling
Address _____ City _____ State _____ Zip _____

Logging Company HALLIBURTON
Address _____ City _____ State _____ Zip _____

Cementing Company HALLIBURTON
Address _____ City _____ State _____ Zip _____

Stimulating Company PRODUCERS SERVICE CORP
Address 109 S. GRAHAM STREET City ZANESVILLE State OH Zip 43701

Please insert additional pages as applicable.

Completed by Bekki Winfree Telephone 713-485-2640
Signature Bekki Winfree Title Sr. Regulatory Advisor-Marcellus Date 12/01/15

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry
DEC 05 2015
01/08/2016