

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

API 47 - 095 - 02627 County Tyler District McElroy
Quad Shirley Pad Name Grumpy Field/Pool Name _____
Farm name Diana Sampson Well Number 1
Operator (as registered with the OOG) Jay Bee Oil and Gas, Inc
Address 23 Eganfuskee St. Suite 126 City Jupiter State FL Zip 33477

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4368698.01 Easting 520287.57
Landing Point of Curve Northing 4368559.31 Easting 519778.58
Bottom Hole Northing 4366949.70 Easting 520213.28

Elevation (ft) 1,299.3' 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)
K48 (base oil)

Date permit issued 7/23/2019 Mod 6/29/2021 Date drilling commenced 10/16/2019 (tophole) Date drilling ceased 8/13/2021
Date completion activities began 12/21/2021 Date completion activities ceased 12/29/2021
Verbal plugging (Y/N) N Date permission granted NA Granted by NA

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

Freshwater depth(s) ft 120' Open mine(s) (Y/N) depths N
Salt water depth(s) ft 870' Void(s) encountered (Y/N) depths N
Coal depth(s) ft 501', 640', 734', 893', 956' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by:
Steve M. [Signature]
03/17/2023
1031122

API 47-⁰⁹⁵⁰²⁶²⁷ - 0000 Farm name Diana Samson Well number 1

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	18-5/8	30	N		NA	
Surface	17.5	13-3/8	336	N	48#/H40	50'	YES
Coal							
Intermediate 1	11	8-5/8	2,537	N	24#/J55	100'/2400'	YES
Intermediate 2							
Intermediate 3							
Production	7-7/8	5-1/2	13,180	N	20#/P110	NA	YES
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	Class A, 2%CaCl, 1/4 flake					surface	8
Surface	Class A, 2%CaCl, 1/4 flake	283	15.6	1.1966	338	surface	8
Coal							
Intermediate 1	Class A, 2%CaCl	761	15.6	1.17	898 ft3/(160 bbl)	surface	8
Intermediate 2							
Intermediate 3							
Production	CLASS A, FLY ASH, MPA-170, R-3	2,164	14.50	1.17	2,532	surface	8
Tubing							

Drillers TD (ft) 13,222' MD Loggers TD (ft) 13,222'
 Deepest formation penetrated Marcellus Plug back to (ft) NA
 Plug back procedure NA

Kick off depth (ft) 6,930'

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
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DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING _____

5.5: Vertical Hole: bow spring every 500'. Horizontal: every 42' spiral centralizer. Curve: every 84' spiral centralizer
 8-5/8: Bow spring every 375'
 13-3/8: every joint

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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 _____

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 10/31/22

API 47-095 - 02627

Farm name Diana Samson

Well number Grumpy 1

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
1	12-12-21	13092	12988	72	Marcellus
2	12-12-21	12942	12809	72	Marcellus
3	12-13-21	12768	12614	72	Marcellus
4	12-14-21	12577	12422	72	Marcellus
5	12-14-21	12378	12253	72	Marcellus
6	12-15-21	12205	12059	72	Marcellus
7	12-16-21	12011	11866	72	Marcellus
8	12-16-21	11812	11673	72	Marcellus
9	12-17-21	11630	11490	72	Marcellus
10	12-17-21	11446	11296	72	Marcellus
11	12-18-21	11237	11102	72	Marcellus
12	12-18-21	11047	10918	72	Marcellus
13	12-19-21	10874	10754	72	Marcellus
14	12-20-21	10710	10556	72	Marcellus
15	12-20-21	10513	10364	72	Marcellus
16	12-21-21	10323	10180	72	Marcellus

Please insert additional pages as applicable.

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STIMULATION INFORMATION PER STAGE

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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	12-12-21	70.9	6888	7229	3258	266577	9259	N/A
2	12-12-21	75.3	7205	7512	4589	226852	7405	N/A
3	12-13-21	75	6986	7410	4329	261172	8068	N/A
4	12-14-21	75.1	6963	7502	4253	230610	7043	N/A
5	12-14-21	75	7100	7569	3719	259072	7283	N/A
6	12-15-21	75	7042	7493	4412	240950	7631	N/A
7	12-16-21	74.8	6799	7322	5318	260077	7513	N/A
8	12-16-21	74.9	6932	7528	3917	224690	7679	N/A
9	12-17-21	75	6812	7327	3891	261061	7992	N/A
10	12-17-21	75.2	6990	7628	3822	258481	7419	N/A
11	12-18-21	75.7	7099	7719	4272	234343	7221	N/A
12	12-18-21	73.8	7213	7813	4196	204042	6650	N/A
13	12-19-21	75.4	6904	7648	4009	260185	7665	N/A
14	12-20-21	74.7	6813	7502	3992	260893	7150	N/A
15	12-20-21	74.7	6903	7599	4496	198440	6020	N/A
16	12-21-21	75	6697	7518	4179	260496	7286	N/A

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Please insert additional pages as applicable.

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API 47- 095 - 02627 Farm name Diana Samson Well number Grumpy 1

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
17	12-21-21	10140	9982	72	Marcellus
18	12-22-21	9940	9796	72	Marcellus
19	12-22-21	9762	9608	72	Marcellus
20	12-22-20	9567	9414	72	Marcellus
21	12-23-21	9376	9220	72	Marcellus
22	12-23-21	9175	9012	72	Marcellus
23	12-24-21	8971	8850	72	Marcellus
24	12-26-21	8810	8670	72	Marcellus
25	12-27-21	8630	8458	72	Marcellus
26	12-27-21	8414	8299	72	Marcellus
27	12-28-21	8262	8100	72	Marcellus
28	12-28-21	8062	7926	72	Marcellus
29	12-29-21	7862	7708	72	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	12-21-21	74.6	6636	7018	4186	233704	6787	N/A
18	12-22-21	75.1	6751	7396	3715	249075	7381	N/A
19	12-22-21	75.3	6789	7428	4859	260010	7293	N/A
20	12-22-21	74.8	6698	7318	3818	255386	7217	N/A
21	12-23-21	75.1	6712	7411	4875	259961	7440	N/A
22	12-23-21	75	6686	7522	3789	260501	7340	N/A
23	12-24-21	75	6847	7602	3699	238474	7021	N/A
24	12-26-21	75	6628	7489	4487	260008	7319	N/A
25	12-27-21	75.1	6587	7402	4689	259697	7174	N/A
26	12-27-21	75.2	6646	7519	5173	249005	7061	N/A
27	12-28-21	74.9	6535	7416	4449	260740	7404	N/A
28	12-28-21	74.9	6541	7321	4387	240394	7086	N/A
29	12-29-21	74.5	6764	7478	5418	245584	7429	N/A

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5/13/22

API 47- 095 - 02627

Farm name Diana Sampson

Well number 1

PRODUCING FORMATION(S)

DEPTHS

MARCELLUS 7,063' TVD 13,222' MD

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 2874 psi Bottom Hole _____ psi DURATION OF TEST 24 hrs

OPEN FLOW Gas 5467.0 mcfpd Oil _____ bpd NGL _____ bpd Water 23 bpd GAS MEASURED BY Estimated Orifice Pilot

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

SEE ATTACHED	TOP DEPTH IN FT	BOTTOM DEPTH IN FT	TOP DEPTH IN FT	BOTTOM DEPTH IN FT	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H ₂ S, ETC)
	0		0		

Please insert additional pages as applicable.

Drilling Contractor Precision Drilling
Address 10350 Richmond AVE City Houston State TX Zip 77042

Logging Company Stratagraph NE Inc.
Address 116 Ellsworth Avenue City Marietta State OH Zip 45750

Cementing Company American Cementing
Address 3415 MILLENNIUM BLV City Massillon State OH Zip 44646

Stimulating Company CalFrac
Address 2001 Summit View RD City Smithfield State PA Zip 15478

Please insert additional pages as applicable.

Completed by Emily Potesta Telephone 304-628-3111
Signature Emily Potesta Title Regulatory Agent Date 10/18/2022

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03/17/2023
1031/22

OIL AND GAS RECLAMATION NOTICE

TO:

Name _____

Address _____

Name _____

Address _____

Name _____

Address _____

- Not Needed For WR-35

Pursuant to West Virginia Code 22-7, notice is hereby given that the undersigned well operator is commencing the reclamation of the surface disturbance caused by well work required by West Virginia Code 22-6-30 on the tract of land as follows:

API Permit No. 47- 095 - 02627 ;
Acreage 42.00 ;
Watershed Woodburn Run of Outlet Middle Island Creek (HUC-10) ;
District McElroy ;
County Tyler ;
Public Road Access Wildman Run ;
Generally used farm name Diana Samson .

This tract of land was utilized in connection with the well work authorized by the permit listed above issued by the Office of Oil and Gas of the West Virginia Department of Environmental Protection.

Any claim for oil and gas production damage compensation from the undersigned must be made within 2 years of the publication of this notice.

Well Operator Jay- Bee Oil and Gas, INC.

Address 429 Simonton Road
Ellenboro, WV 26346

Telephone 304-628-3111

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08/17/2023

PAD-WELL	Grumpy No. 1			
ELEVATION	1299			
PERMIT	47-095-02627			
	TOP TVD	BOTTOM TVD		
Carroll Sand	340	368		
Murphy Sand	507	512		
1st Cow Run Sand	552	561		
Little Dunkard Sand	640	699		
Dunkard Sand	776	882		
sandstone	1005	1024		
2nd Cow Run Sand	1061	1095		
Gas Sand	1145	1172		
1st Salt	1348	1398		
2nd Salt	1754	1795		
3rd Salt	1837	1894		
Maxon				
Big Lime	2295	2392		
Big Injun	2408	2498	Gas show	
Berea				
Gordon	3059	3093	Gas show	
Fifth	3296	3300		
Warren	3749	3802		
Riley	4694	4,744		
Benson	5292	5,294		
Alexander	5648	5,706		
Hamilton	5905	6,316	Gas show	
Upper Marcellus (Geneseo)	6936	6967		
Purcell (Tully Lm)	6967	6971		
Marcellus	7024		Gas show	
Cherry Valley				

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03/17/2023

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	12/12/2021
Job End Date:	12/29/2021
State:	West Virginia
County:	Tyler
API Number:	47-095-02627-00-00
Operator Name:	Jay-Bee Oil & Gas, Inc.
Well Name and Number:	Grumpy 1
Latitude:	39.46764200
Longitude:	-80.76414500
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	7,063
Total Base Water Volume (gal):	9,176,637
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	Supplied by Operator	Base Fluid					
			Water	7732-18-5	100.00000	91.09352	
CalGuard™ 1000	GWS	Corrosion Inhibitor					
				Listed Below			

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DynaScale™ 3511	CWS	Scale Inhibitor					
				Listed Below			
Hydrochloric Acid	CWS	Clean Perforations					
				Listed Below			
CalBreak™ 5700	CWS	Breaker					
				Listed Below			
DynaRate™ 6459	CWS	Friction Reducer					
				Listed Below			
Hydrochloric Acid	CWS	Clean Perforations					
				Listed Below			
MBC 12:3	CWS	Microbiocide					
				Listed Below			
Sand (Proppant)	CWS	Propping Agent					
				Listed Below			
CalGel 4000	CWS	Gel Slurry					
				Listed Below			
Other Chemical(s)	Listed Above	See Trade Name(s) List					

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				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	100.00000	8.59372	
			Hydrochloric acid	7647-01-0	37.00000	0.18069	
			Calcite	471-34-1	1.00000	0.05825	
			Illite	12173-60-3	1.00000	0.02769	
			Goethite	1310-14-1	0.10000	0.00859	
			Apatite	64476-38-6	0.10000	0.00859	
			Biotite	1302-27-8	0.10000	0.00859	
			Distillates (petroleum), hydrotreated middle	64742-46-7	60.00000	0.00551	
			Guar gum	9000-30-0	60.00000	0.00551	
			Glutaraldehyde	111-30-8	14.00000	0.00327	
			Ilmenite	98072-94-7	0.10000	0.00277	
			Didecyl dimethyl ammonium chloride	7173-51-5	3.00000	0.00070	
			Alkyl dimethyl benzyl ammonium chloride	68424-85-1	3.00000	0.00070	
			Ethanol	64-17-5	3.00000	0.00070	
			Quaternary ammonium compounds, bis (hydrogenated tallow alkyl)dimethyl, salts with bentonite	68953-58-2	5.00000	0.00046	
			Ethylene Glycol	107-21-1	40.00000	0.00016	
			Oxirane, 2-methyl-, polymer with oxirane, monodecyl ether	37251-67-5	1.50000	0.00014	
			Diethylene glycol, monomethyl ether	34590-94-8	20.00000	0.00008	
			Distillates (petroleum), hydrotreated light	64742-47-8	3.00000	0.00007	
			Ammonium chloride ((NH4)Cl)	12125-02-9	5.00000	0.00007	
			Formic acid	64-18-6	10.00000	0.00004	
			Cinnamaldehyde	104-55-2	10.00000	0.00004	

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			Tar bases, quinolone derivs, benzyl chloride- quatenized	72480-70-7	10.00000	0.00004	
			Ethoxylated Alcohols	68131-39-5	10.00000	0.00004	
			Hydrogen peroxide (H2O2)	7722-84-1	8.00000	0.00002	
			Isopropyl alcohol	67-63-0	5.00000	0.00002	
			Proprietary Polymer 1	Proprietary			Proprietary CAS & Additive Concentration
			Inorganic Salt	Proprietary			Proprietary CAS & Additive Concentration
			Inorganic Acid Salt	Proprietary			Proprietary CAS & Additive Concentration
			Organic Acid Ether	Proprietary			Proprietary CAS & Additive Concentration

* 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

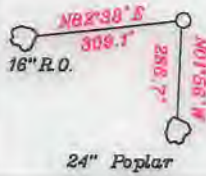
Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.

Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

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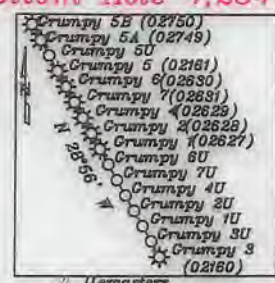
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References:



LATITUDE 39-27-30 N

Legend table with symbols for 500' from well bore path, Surface Tracts Within Lease, Lease Line, and Adjoiner Line.

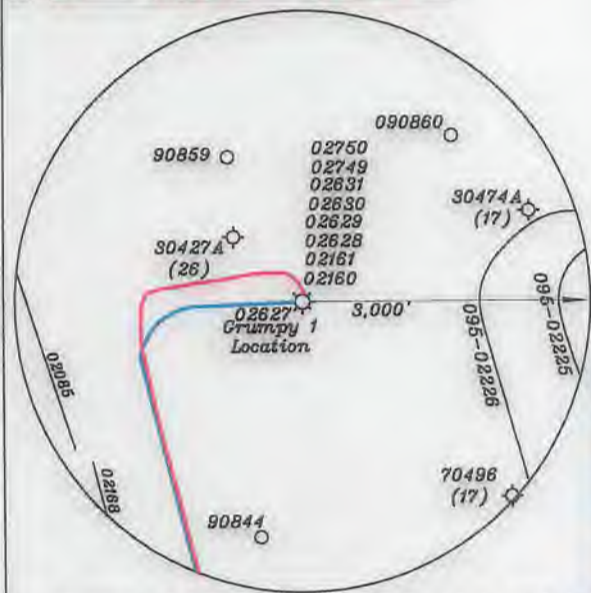


- List of land parcels with owner names and acreage, such as McIntyre, Fields & Leasure, Clark, Yeater, etc.

Note: All wells within 500' of the horizontal leg are shown on this plat based upon information taken from DEP mapping, well plats & aerial photos.

Table with columns: NUMBER, DIRECTION, DISTANCE. Lists bearings and distances for lines L1, L2, and L3.

NORTH



Coordinate tables for Top Hole-TH, Landing Point-LP, and Bottom Hole-BH in Geo NAD 83, UTM NAD 83 (Meters), and UTM NAD 83 (Feet).

Coordinate tables for Top Hole-TH, Landing Point-LP, and Bottom Hole-BH in Geo NAD 83, UTM NAD 83 (Meters), and UTM NAD 83 (Feet).

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

Form fields for FILE NO., DRAWING NO., SCALE, MINIMUM DEGREE OF ACCURACY, PROVEN SOURCE OF ELEVATION, and submeter unit.

CERTIFICATION text: I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF... (SIGNED) David L Jackson, R.P.E., P.S. 708



Main well permit form with fields for DATE (June 15, 2022), OPERATOR'S WELL NO. (Crumphy 1), API WELL NO., WELL TYPE (Gas, Liquid Injection, Waste Disposal), LOCATION, SURFACE OWNER (Diana Samson), OIL & GAS ROYALTY OWNER (Diana Samson), PROPOSED WORK (As Drilled), TARGET FORMATION (Marcellus), ESTIMATED DEPTH (TVD = 7,063'; TMD = 13,222'), WELL OPERATOR (Jay-Bee Oil & Gas, Inc.), and DESIGNATED AGENT (Deborah Broda-Morgan).

LONGITUDE 80-45-00 W, LONGITUDE 80-45-00 W, LONGITUDE 80-45-00 W

03/17/2023