

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

API 47-095-02629 County Tyler District McElroy  
Quad Shirley Pad Name Grumpy Field/Pool Name \_\_\_\_\_  
Farm name Diana Sampson Well Number 4  
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 4368703.76 Easting 520284.94  
Landing Point of Curve Northing 4368602.10 Easting 520630.93  
Bottom Hole Northing 4366199.28 Easting 521328.52

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 07/23/2019 Mod 6/29/2021 Date drilling commenced 10/10/2019 (tophole) Date drilling ceased 9/17/2021  
Date completion activities began 12/21/2021 Date completion activities ceased 12/29/2021  
Verbal plugging (Y/N) NA 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:  
SM 03/17/2023  
10/31/22

API 47- 095 - 02629 Farm name Daina Samson Well number 4

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	18.625	30	N		NA	Y
Surface	17.5	13.375	336	N	48#/H40	50	Y
Coal							
Intermediate 1	11	8.625	2,537	N	24#/J55	100'/2400'	Y
Intermediate 2							
Intermediate 3							
Production	7.875	5-1/2	16,019	N	20#/P110	NA	NO. (per design to 300')
Tubing							
Packer type and depth set							

Comment Details \_\_\_\_\_

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft <sup>3</sup> /sks)	Volume (ft <sup>3</sup> )	Cement Top (MD)	WOC (hrs)
Conductor	Class A, 2%CaCl, 1/4 flake					SURFACE	8
Surface	Class A, 2%CaCl, 1/4 flake	330	15.60	1.1966	394	SURFACE	8
Coal							
Intermediate 1	Class A, 2%CaCl	761	15.6	1.18	898	SURFACE	8
Intermediate 2							
Intermediate 3							
Production	CLASS A, FLY ASH, MPA-170, R-3	2,374	14.50	1.17	2,778	SURFACE	8
Tubing							

Drillers TD (ft) 16,035' MD Loggers TD (ft) 16,035'  
 Deepest formation penetrated MARCELLUS Plug back to (ft) NA  
 Plug back procedure NA

Kick off depth (ft) 6,720'

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 \_\_\_\_\_  
5-1/2": 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": Bow Spring every joint

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WAS WELL COMPLETED AS SHOT HOLE  Yes  No DETAILS \_\_\_\_\_ JUL 07 2022

WAS WELL COMPLETED OPEN HOLE?  Yes  No DETAILS \_\_\_\_\_ WV Department of Environmental Protection

WERE TRACERS USED  Yes  No TYPE OF TRACER(S) USED \_\_\_\_\_

OSM 7/2022  
10/31/20

API 47- 095 - 02629 Farm name Diana Samson Well number Grumpy 4

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
1	12-12-21	15925	15828	72	Marcellus
2	12-13-21	15791	15627	72	Marcellus
3	12-13-21	15581	15434	72	Marcellus
4	12-13-21	15384	15222	72	Marcellus
5	12-13-21	15174	15033	72	Marcellus
6	12-14-21	14980	14807	72	Marcellus
7	12-14-21	14770	14632	72	Marcellus
8	12-14-21	14585	14448	72	Marcellus
9	12-15-21	14412	14266	72	Marcellus
10	12-15-21	14215	14092	72	Marcellus
11	12-15-21	14058	13901	72	Marcellus
12	12-16-21	13852	13685	72	Marcellus
13	12-16-21	13634	13476	72	Marcellus
14	12-16-21	13408	13294	72	Marcellus
15	12-17-21	13250	13122	72	Marcellus
16	12-17-21	13073	12954	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)
1	12-12-21	70.7	7192	7477	3487	260047	7954	N/A
2	12-13-21	71.1	7469	7773	3689	261143	7905	N/A
3	12-13-21	74.8	7343	7455	4008	263897	7834	N/A
4	12-13-21	74.2	7500	7991	4389	262154	7553	N/A
5	12-13-21	71.8	7349	7813	4103	259707	7572	N/A
6	12-14-21	74.7	7266	7438	3678	256482	7760	N/A
7	12-14-21	74.4	7306	7763	4218	261804	7638	N/A
8	12-14-21	75.3	7420	7603	3961	258193	7498	N/A
9	12-15-21	75	7361	7662	4689	262248	7792	N/A
10	12-15-21	76	7146	7946	5341	259920	7782	N/A
11	12-15-21	74.9	7409	7504	4416	253899	7624	N/A
12	12-16-21	74.4	7103	7916	4582	258984	7926	N/A
13	12-16-21	73.7	7194	7631	4525	258420	7774	N/A
14	12-16-21	75.3	7165	7367	4499	260440	7709	N/A
15	12-17-21	75.2	6964	7578	4873	260673	7832	N/A
16	12-17-21	75.2	6971	7555	5312	261323	7816	N/A

Please insert additional pages as applicable.

SM  
03/17/2023



API 47- 095 - 02629 Farm name Diana Samson Well number Grumpy 4

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
33	12-22-21	9750	9598	72	Marcellus
34	12-23-21	9550	9390	72	Marcellus
35	12-23-21	9354	9196	72	Marcellus
36	12-24-21	9164	9024	72	Marcellus
37	12-26-21	8966	8811	72	Marcellus
38	12-27-21	8776	8618	72	Marcellus
39	12-27-21	8572	8444	72	Marcellus
40	12-28-21	8394	8230	72	Marcellus
41	12-28-21	8186	8034	72	Marcellus
42	12-29-21	7986	7896	72	Marcellus
43	12-29-21	7848	7550	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)
33	12-22-21	75	7347	7160	4519	259501	7347	N/A
34	12-23-21	75	6872	7638	4763	241601	7178	N/A
35	12-23-21	75.2	6862	7262	3796	260960	7541	N/A
36	12-24-21	75.3	6892	7211	4691	260716	7284	N/A
37	12-26-21	75.1	6471	7127	4171	260068	7294	N/A
38	12-27-21	74.6	6574	7641	4631	257683	7489	N/A
39	12-27-21	74.9	6594	6847	5273	261063	7384	N/A
40	12-28-21	75.1	6736	7312	4658	259373	7551	N/A
41	12-28-21	74.8	6740	7112	3711	258829	7492	N/A
42	12-29-21	74.8	7026	7302	3909	259714	7602	N/A
43	12-29-21	75	6676	6919	4078	260423	6673	N/A

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Please insert additional pages as applicable.

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OIL AND GAS RECLAMATION NOTICE

TO:

Name \_\_\_\_\_

Address \_\_\_\_\_  
\_\_\_\_\_

Name \_\_\_\_\_

Address \_\_\_\_\_  
\_\_\_\_\_

Name \_\_\_\_\_

Address \_\_\_\_\_  
\_\_\_\_\_

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 - 02629 \_\_\_\_\_ ;  
Acreage 42.0 \_\_\_\_\_ ;  
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 & Gas, INC. \_\_\_\_\_  
Address 429 Simonton Road \_\_\_\_\_  
Ellenboro, WV 26346 \_\_\_\_\_  
Telephone 304-628-3111 \_\_\_\_\_

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PAD-WELL	Grumpy No. 4		
ELEVATION	1299		
PERMIT	47-095-02629		
	TOP TVD	BOTTOM TVD	
Carroll Sand	340	377	
Murphy Sand	502	522	
1st Cow Run Sand	547	560	
Little Dunkard Sand	635	685	
Dunkard Sand	775	865	
sandstone	990	1015	
2nd Cow Run Sand	1060	1100	
Gas Sand	1140	1147	
1st Salt	1390	1405	
2nd Salt	1603	1649	
3rd Salt	1825	1886	
Maxon			
Big Lime	2285	2400	
Big Injun	2410	2492	Gas show
Berea			
Gordon	3065	3093	Gas show
Fifth	3290	3297	
Warren	3762	3795	
Riley	4724	4,744	
Benson	5345	5,346	
Alexander	5657	5,693	
Hamilton	5955	6,389	Gas show
Upper Marcellus (Geneseo)	6951	6957	Gas show
Purcell (Tully Lm)	6991	6997	
Marcellus	7049		Gas show
Cherry Valley			

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## 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:	47-095-02629-00-00
Operator Name:	Jay-Bee Oil & Gas, Inc.
Well Name and Number:	Grumpy 4
Latitude:	39.44919400
Longitude:	-80.76825000
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	7,237
Total Base Water Volume (gal):	13,962,247
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	90.99100	
Sand (Proppant)	CWS	Propping Agent					
				Listed Below			

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DynaRate™ 6459	CWS	Friction Reducer					
				Listed Below			
CalGel™ 4000	CWS	Gel Slurry					
				Listed Below			
CalBreak™ 5700	CWS	Breaker					
				Listed Below			
MBC 12:3	CWS	Microbiocide					
				Listed Below			
Hydrochloric Acid	CWS	Clean Perforations					
				Listed Below			
DynaScale™ 3511	CWS	Scale Inhibitor					
				Listed Below			
CalGuard™ 9100	CWS	Corrosion Inhibitor					
				Listed Below			
Other Chemical (s)	Listed Above	See Trade Name (s) List					
				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	8.70673	
			Hydrochloric acid	7647-01-0	37.00000	0.17050	

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		Calcite	471-34-1	1.00000	0.06017
		Illite	12173-60-3	1.00000	0.02689
		Biotite	1302-27-8	0.10000	0.00871
		Goethite	1310-14-1	0.10000	0.00871
		Apatite	64476-38-6	0.10000	0.00871
		Distillates (petroleum), hydrotreated middle	64742-46-7	60.00000	0.00473
		Guar gum	9000-30-0	60.00000	0.00473
		Glutaraldehyde	111-30-8	14.00000	0.00325
		Ilmenite	98072-94-7	0.10000	0.00269
		Alkyl dimethyl benzyl ammonium chloride	68424-85-1	3.00000	0.00070
		Didecyl dimethyl ammonium chloride	7173-51-5	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	0.00039
		Ethylene Glycol	107-21-1	40.00000	0.00017
		Oxirane, 2-methyl-, polymer with oxirane, monodecyl ether	37251-67-5	1.50000	0.00012
		Diethylene glycol, monomethyl ether	34590-94-8	20.00000	0.00008
		Distillates (petroleum), hydrotreated light	64742-47-8	3.00000	0.00006
		Ammonium chloride ((NH <sub>4</sub> )Cl)	12125-02-9	5.00000	0.00006
		Cinnamaldehyde	104-55-2	10.00000	0.00004
		Tar bases, quinolone derivs, benzyl chloride- quatenized	72480-70-7	10.00000	0.00004
		Ethoxylated Alcohols	68131-39-5	10.00000	0.00004
		Formic acid	64-18-6	10.00000	0.00004
		Hydrogen peroxide (H <sub>2</sub> O <sub>2</sub> )	7722-84-1	8.00000	0.00002

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5m

			Isopropyl alcohol	67-63-0	5.00000	0.00002	
			Organic Acid Ether	Proprietary			Proprietary CAS & Additive Concentration
			Proprietary Polymer 1	Proprietary			Proprietary CAS & Additive Concentration
			Inorganic Salt	Proprietary			Proprietary CAS & Additive Concentration
			Inorganic Acid Salt	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.

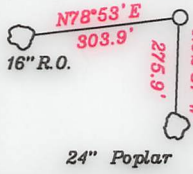
Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

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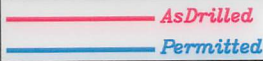
SM  
10/31

References:

Grumpy 4



LATITUDE 39-27-30 N



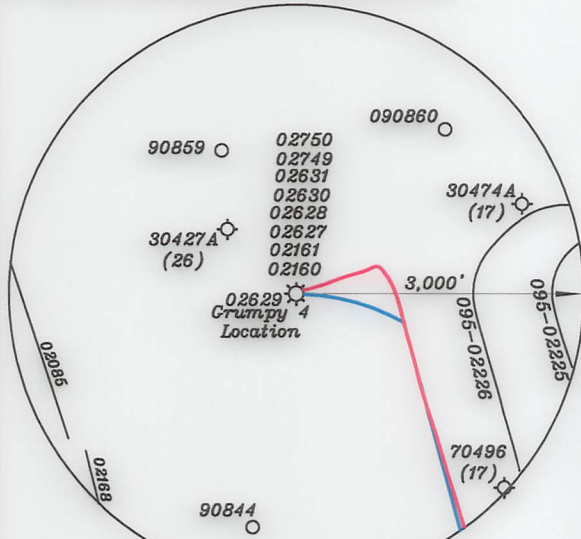
Note: All wells within 500' of the horizontal leg are shown on this plat based upon information taken from DEP mapping, well plats & aerial photos.

- A- R. Thomas TM 12/ 1.4 14.997 Ac.
B- Headley TM 11/ 33.1 9.227 Ac.
C- Yeater, et al TM 6/ 25.1 1.1 Ac.
D- Titus TM 6/ 25.3 4.83 Ac.
E- Titus TM 6/ 25.2 1.08 Ac.
F- Diana Samson TM 6/ 19 42 Ac.
G- Edgar McHenry Trust TM 6/ 15 15.81 Ac.
H- Rayburn Heirs TM 6/ 16 15.82 Ac.
I- Eidle TM 7/ 17 23.73 Ac.
J- Eidle TM 7/ 18 26.36 Ac.
K- B.C. Farms Investments, LLC TM 7/19 22.85 Ac.

LEGEND
500' from well bore path
Surface Tracts Within Lease
Lease Line
Adjoiner Line

Table with 3 columns: NUMBER, DIRECTION, DISTANCE. Rows include L1 (S79°03'E, 1,914.1'), L2 (S51°55'E, 3,496.8'), L3 (S72°40'E, 1,183.5')

NORTH



Top Hole-TH
Geo NAD 83- 39.467676 N, 80.764181 W
UTM NAD 83(Meters)-4368703.68 N, 520284.86 E
UTM NAD 83(Feet)-14332988.66 N, 1706967.92 E
Landing Point-LP
Geo NAD 83- 39.464734 N, 80.759375 W
UTM NAD 83(Meters)-4368378.34 N, 520699.12 E
UTM NAD 83(Feet)-14331921.27 N, 1708327.03 E
Bottom Hole-BH
Geo NAD 83- 39.444415 N, 80.751805 W
UTM NAD 83(Meters)-4366125.05 N, 521356.53 E
UTM NAD 83(Feet)-14324528.61 N, 1710483.89 E

Top Hole-TH
Geo NAD 83- 39.467676 N, 80.764180 W
UTM NAD 83(Meters)-4368703.76 N, 520284.94 E
UTM NAD 83(Feet)-14332988.91 N, 1706968.18 E
Landing Point-LP
Geo NAD 83- 39.466752 N, 80.760161 W
UTM NAD 83(Meters)-4368602.10 N, 520630.93 E
UTM NAD 83(Feet)-14332655.37 N, 1708103.31 E
Bottom Hole-BH
Geo NAD 83- 39.445084 N, 80.752128 W
UTM NAD 83(Meters)-4366199.28 N, 521328.52 E
UTM NAD 83(Feet)-14324772.15 N, 1710391.99 E

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

FILE NO.
DRAWING NO. 1
SCALE 1" = 2000'
MINIMUM DEGREE OF ACCURACY 1 in 200
PROVEN SOURCE OF ELEVATION GPS
submeter unit

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) David L Jackson
R.P.E. P.S. 708



STATE OF WEST VIRGINIA
Division of Environmental Protection
OFFICE OF OIL AND GAS

DATE June 15, 2022
OPERATOR'S WELL NO. Grumpy 4
API WELL NO.

WELL TYPE: OIL GAS X LIQUID INJECTION WASTE DISPOSAL STATE COUNTY PERMIT
(IF 'GAS') PRODUCTION X STORAGE DEEP SHALLOW X
LOCATION: ELEVATION 1,299.1' WATER SHED Woodburn Run of Outlet Middle Island Creek (HUC-10)
DISTRICT McElroy COUNTY Tyler
QUADRANGLE Shirley 7 1/2'

SURFACE OWNER Diana Samson ACREAGE 42.0 Ac.
OIL & GAS ROYALTY OWNER Diana Samson LEASE ACREAGE 42.0 Ac.
LEASE NO. See above

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR
STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW
FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) As Drilled

PLUG AND ABANDON CLEAN OUT AND REPLUG
TARGET FORMATION Marcellus ESTIMATED DEPTH TVD = 7,078'; TMD = 15,800'
WELL OPERATOR Jay-Bee Oil & Gas, Inc. DESIGNATED AGENT Deborah Broda-Morgan
ADDRESS 16 South Avenue W, Ste 118, Cranford NJ 07016 ADDRESS 429 Simonton Road, Ellenboro WV 26346

LONGITUDE 80-45-00 W
Bottom Hole 4,826'
Top Hole 11,774'
Top Hole 80-45-00 W
Bottom Hole 80-45-00 W

05/17/2023