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

API	<u>47</u> - 095	_ 02625	_ County _	yler		District McElroy		
Quad	Shirley 7.5		Pad Name		F	ield/Pool Name _		
	name Francis \		6r. & Randy W	. Tustin		Well Number 8		
Opera	ator (as registered	d with the OOC	₃₎ Jay Bee Oi	and Gas, I	nc			
Addre	ess 16 South A	venue West	Ste 118 C	ity Cranfor	d	State NJ	Zip _	07016
As Dr	rilled location	NAD 83/UTM Top hole	Northing 4366	642.78		ng <u>519942.93</u>		
	Landing Poir		Northing 4366			ng 519514.92		
	Во	ttom Hole	Northing 43682	270.02	Eastin	ng 519011.71		
Eleva	tion (ft) 1,039	9.9' GL	Туре о	f Well ■New	✓ □ Existing	Type of Report	t □Interim	≣Final
Permi	it Type 🗆 De	eviated 🗆 1	Horizontal	Horizontal 6A	∆ □ Vertical	Depth Type	□ Deep	□ Shallow
Туре	of Operation	Convert	Deepen ■ Dr	ill 🗆 Plug	Back Redrill	ing □ Rework	□ Stimula	ıte
Well '	Type 🗆 Brine D	Disposal □ CB	M ■ Gas ■ Oi	l □ Seconda	y Recovery 🗆 Sol	lution Mining S	torage 🗆 🔾	RECEIVED ice of Oil and Gas
Туре	of Completion	■ Single □ M	ultiple Fluid	ls Produced	Brine ■Gas	■ NGL ■ Oil		UG 2 3 2 022
Drille	d with Cable	Rotary					• • •	0 0 2 0 2022
Drillii	ng Media Surfa	ace hole 📱 A	ir □ Mud □F	resh Water	Intermediate he	ole ■Air □Mu	Envir	V Department of comental Protection Water
Produ	ction hole	ir ■ Mud	□ Fresh Water	□ Brine				
	Type(s) and Address Based Mud		(Base Oil), Barite	e, Anco Mul P,	Anco Mul S, Anco	Mul OW, Anco Mul	I XL, Anco M	lui Mod
Ance	o Mul OW, C	laytone 3, l	_ime, Calciu	m Chloride	Powder, Phal	t S, Mica, Cal-	Carb	
Date :	permit issued	07/9/2019	Date drilli	ng commence	d10/23/2019	Date drilling	ceased	1/24/2022
•	completion activ		2/19/2022	•	te completion activ		3/5/2022	
						Granted by		
V CI Da	ii piugging (1714	/	Date permission	i granteu		_ Granted by	-	
Please	e note: Operator	is required to	submit a pluggin	g application	within 5 days of ve	rbal permission to	plug	
Fresh	water depth(s) f	t	60-90'	Ope	n mine(s) (Y/N) de	pths	N	
Salt w	vater depth(s) ft		N/A	Voi	l(s) encountered (Y	7/N) depths	N	
Coal	depth(s) ft		N/A	Cave	ern(s) encountered	(Y/N) depths	N	l
Is coa	l being mined in	area (Y/N)	N					
							Revie	wed by:

WR-35 Rev. 8/23/13

API 47- 095	02625	_ Farm name_Fr	rancis W. Tenna	ant Sr. & R	andy W.	Tustin_We	ll number_8		
CASING STRINGS		asing Size D		ew or Jsed	Grade wt/ft		Basket Depth(s)		ment circulate (Y/N)
Conductor	24	18.625	30	N			NA		Υ
Surface	17.5	13.375 3	336	N	48#	#/H40	50		Υ
Coal									
Intermediate 1	11	8.625 2,	218	N	24	‡ /J55	100'/2200'		Υ
Intermediate 2									
Intermediate 3									
Production	7.875	5-1/2 12	2,493	N	20#	/P110	NA	NO.	(per design to 300')
Tubing									
Packer type and de	epth set								
CEMENT	Class/Type	Number	Slaven	Yi	ald.	Volume	Con	nent	WOC
CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	(ft ³		(<u>ft ³)</u>	Top ((hrs)
Conductor	Class A, 2%CaCl, 1/4 flake						SUR	FACE	8
Surface	Class A, 2%CaCl, 1/4 flake	241	15.60	1.19	966	289	SURI	FACE	8
Coal									
Intermediate 1	Class A, 2%CaCl	682	15.6	1.	18	932	SURI	FACE	8
Intermediate 2									
Intermediate 3									
Production	CLASS A, FLY ASH, MPA-170, R-3	1955	14.50	1.	18	2,314	30		CEIVED 8
Tubing								Office	of Oil and Gas
Drillers TD (ft Deepest forma Plug back pro	tion penetrated MAR	CELLUS		oggers TD ug back to				WV D	2 3 2022 epartment of
								=rivironm	ental Protection
Kick off depth	(ft) <u>6,325'</u>			_					
Check all wire	line logs run	-	•	deviated gamma			induction temperature	□son	ic
Well cored	Yes 🖪 No	Conventional	Sidewall		W	ere cutting	gs collected	■ Yes	□ No
	<u> </u>	ry 42' spiral centralizer. Curve: e		er					
WAS WELL C	COMPLETED AS S	HOT HOLE 🛛	Yes ■ No	DET	TAILS				
WAS WELL O	COMPLETED OPE	N HOLE? □ Ye	es 🖪 No	DETA	ILS				
WERE TRACE	ERS USED □ Yes	■ No TY	PE OF TRAC	ER(S) U	SED				03/17/2023

API 47-095 _ 02625

Farm name_Francis W. Tennant Sr. & Randy W. Tustin_Well number_DOC 8

PERFORATION RECORD

Stage		Perforated from	Perforated to	Number of	
No.	Perforation date	MD ft.	MD ft.	Perforations	Formation(s)
1	2-19-22	12342	12270	72	MARCELLUS
2	2-22-22	12234	12142	72	MARCELLUS
3	2-22-22	12054	11884	72	MARCELLUS
4	2-22-22	11844	11708	72	MARCELLUS
5	2-23-22	11658	11501	72	MARCELLUS
6	2-23-22	11470	11309	72	MARCELLUS
7	2-24-22	11262	11142	72	MARCELLUS
8	2-24-22	11100	10927	72	MARCELLUS
9	2-25-22	10878	10754	72	MARCELLUS
10	2-25-22	10698	10567	72	MARCELLUS
11	2-25-22	10525	10386	72	MARCELLUS
12	2-26-22	10340	10208	72	MARCELLUS
13	2-26-22	10152	10024	72	MARCELLUS
14	2-27-22	9984	9848	72	MARCELLUS
15	2-27-22	9802	9679	72	MARCELLUS
16	2-28-22	9634	9499	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)	W\ Amou <u>pt</u> rofiro Water (bbls)	Department of Amount of Innental Protection Nitrogen/other (units)
1	2-19-22	70.2	6749	7103	4451	148703	6001	N/A
2	2-22-22	30.6	8969	6705	0	0	1811	N/A
3	2-22-22	70.3	6755	6703	4132	136816	5801	N/A
4	2-22-22	70.9	6703	6614	4341	172250	6596	N/A
5	2-23-22	70.5	6553	5939	4469	170074	6768	N/A
6	2-23-22	70.7	6527	6087	4292	241221	7957	N/A
7	2-24-22	70.6	6496	6018	4843	240983	7942	N/A
8	2-24-22	70.5	6398	6019	4461	241427	8289	N/A
9	2-25-22	71.2	6602	5932	4444	240039	7797	N/A
10	2-25-22	70.3	6326	6030	4314	240947	8250	N/A
11	2-25-22	70.9	6423	6601	4986	239798	7753	N/A
12	2-26-22	70	6257	5762	4763	242549	8154	N/A
13	2-26-22	70.6	6227	5934	4920	237238	7750	N/A
14	2-27-22	69.3	6221	6092	5002	243331	9640	N/A
15	2-28-22	70.3	6277	6056	5226	240286	7752	N/A
16	2-28-22	70.1	6194	5622	5291	240286	8137	N/A

Please insert additional pages as applicable.



WR-35 Rev. 8/23/13

API 47- 095 - 02625 Farm name Francis W. Tennant Sr. & Randy W. Tustin Well number DOC 8

PERFORATION RECORD

Stage		Perforated from	Perforated to	Number of	
No.	Perforation date	MD ft.	MD ft.	Perforations	Formation(s)
17	2-28-22	9452	9284	72	MARCELLUS
18	2-28-22	9235	9114	72	MARCELLUS
19	3-1-22	9075	8918	72	MARCELLUS
20	3-1-22	8880	8750	72	MARCELLUS
21	3-2-22	8699	8548	72	MARCELLUS
22	3-2-22	8512	8393	72	MARCELLUS
23	3-3-22	8351	8228	72	MARCELLUS
24	3-3-22	8190	8049	72	MARCELLUS
25	3-4-22	8005	7839	72	MARCELLUS
26	3-4-22	7797	7611	72	MARCELLUS
27	3-5-22	7567	7438	72	MARCELLUS
28	3-5-22	7386	7211	72	MARCELLUS

Please insert additional pages as applicable.

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STIMULATION INFORMATION PER STAGE

AUG 2 3 2022

(Complete a	senarate	record	for ea	ich s	timul	ation	stage
١,	Complete a	SUDALAL	ICCUIU	101 6	பாக	LIIII	auvii	SIGEU.

Comp	lete a separate	e record for each	ch stimulation stage.					WV Department of
Stage	Stimulations	Ave Pump	Ave Treatment	Max Breakdown		Amount of	Amount of	vironmental Protection Amount of
No.	Date	Rate (BPM)	Pressure (PSI)	Pressure (PSI)	ISIP (PSI)	Proppant (lbs)	Water (bbls)	Nitrogen/other (units)
17	3-28-22	70.2	6245	6402	4108	240003	7828	N/A
18	2-28-22	69.9	6174	5795	4823	239936	8133	N/A
19	3-1-22	71.1	6264	6030	4782	239820	7809	N/A
20	3-1-22	70.5	6356	6047	4592	241245	7742	N/A
21	3-2-22	70.2	6278	5766	5005	240481	8008	N/A
22	3-2-22	70.9	6208	5840	4478	259520	8200	N/A
23	3-3-22	70.1	6239	6147	4840	261315	8696	N/A
24	3-3-22	70.8	6362	5696	4417	259384	8202	N/A
25	3-4-22	70.3	6509	6705	5004	260667	8479	N/A
26	3-4-22	70.3	6205	5593	5257	259304	8197	N/A
27	3-5-22	70.7	6119	5479	5143	260186	8224	N/A
28	3-5-22	69.8	6232	5528	5164	259893	8448	N/A

Please insert additional pages as applicable.



WR-35 Rev. 8/23/13

API 47- 095	02625	Farm	name_Francis W.	Tennant S	r. & Randy W.	Tustin Well	number	8	
PRODUCING I	FORMATION(<u>S)</u>	DEPTHS						
Marcellus			6,777'	_TVD	12,493'	MD			
Please insert ad			• O FI	_	OH TEST		D. sees		
GAS TEST SHUT-IN PRE			■ Open Flow	m Hole 24				F TEST 24	hrs
OPEN FLOW		Oil	psi Botto NGL bpd N/A		Water	GAS I	MEASU		□ Pilot
LITHOLOGY/ FORMATION	TOP DEPTH IN FT NAME TVD	BOTTOM DEPTH IN FT TVD	MD	BOTTO DEPTH IN MD	NFT DESCRI			RECORD QUA ER, BRINE, OII	NTITYAND L, GAS, H₂S, ETC)
SEE ATTACHED	0		0						
								RECE Office of O	IVED
								AUG 2	
								WV Depart Environmental	ment of Protection
Please insert ad	ditional pages a	c applicable	A II						
Drilling Contra Address 10350 I	ctor Precision D		City	Houston		State	TX	Zip_77042	2
Logging Compa Address 116 Ells	any Stratagraph	NE Inc.	City	Marietta		State	ОН	Zip 45750)
Cementing Con Address 3415 M	npany American	Cementing	City	Massillon	7	State	ОН	Zip 44646	3
Stimulating Con Address 2001 St Please insert ad	ummit View RD		City	Smithfield	T.	State	PA	Zip _15478	3
Completed by		з пруподоте.	mital. B	ogulata - : *	Telepho	one 304-628	3-3111	/40/2022	
Signature	myou	W	Title R	egulatory A	yent		Date 8	/19/2022	

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 commencing the reclamation of the surface disturbance caused by well work required by West V Code 22-6-30 on the tract of land as follows:	
API Permit No. 47-09502625;	
44 49	;
Acreage 11.47 Watershed Indian Creek of Outlet Middle Island Creek (HUC	RECEIVED Office of Oil and Gas
District McElroy	AUG 2 3 2022
County Tyler	wv Department of
Public Road Access Indian Creek Rd.	Environmental Protection
Generally used farm name Francis W. Tennant Sr. & Randy W. 1	ſustin
This tract of land was utilized in connection with the well work authorized by the permiabove issued by the Office of Oil and Gas of the West Virginia Department of Environmental Pr	
Any claim for oil and gas production damage compensation from the undersigned must within 2 years of the publication of this notice.	be made
Well Operator_Jay-Bee Oil & Gas, Inc.	
Address 429 Simonton Rd.	
Ellenboro, WV 26346	
304-628-3111	



	,			<u> </u>
PAD-WELL	Doc No. 8			
ELEVATION	1039			
PERMIT	47-095-02625			
	TOP TVD	BOTTOM TVD		
Carroll Sand	340	378		
Murphy Sand	454	495		
1st Cow Run Sand	538	590		
Little Dunkard Sand	669	680		
Dunkard Sand	705	803		
sandstone	918	930		
2nd Cow Run Sand	1043	1055		
Gas Sand	1215	1230		
1st Salt	1300	1370		
2nd Salt	1506	1605		
3rd Salt	1915	1973		
Maxon				
Big Lime	2009	2070		
Big Injun	2129	2200	Gas show	
Berea			-	
Gordon	2789	2806	Gas show	
Fifth	3008	3018		
Warren	3480	3520		
Riley	4450	4463		
Benson	4909	4912		
Alexander	5322	5400		
Hamilton	5652	6237	Gas show	
Upper Marcellus (Geneseo)	6661	6696	Gas show	
Purcell (Tully Lm)	6696	6699		
Marcellus	6746		Gas show	
Cherry Valley				

Hydraulic Fracturing Fluid Product Component Information Disclosure

2/19/2022	Job Start Date:
3/5/2022	Job End Date:
West Virginia	State:
Tyler	County:
47-095-02625-00-00	API Number:
Jay-Bee Oil & Gas, Inc.	Operator Name:
Doc 8	Well Name and Number:
39.44908900	Latitude:
-80.76821700	Longitude
NAD83	Datum
NO.	Federal Well:
NO	Indian Well:
6,768	True Vertical Depth:
9,278,326	Total Base Water Volume (gal):
0	Total Base Non Water Volume:







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	92.19854	
Hydrochloric Acid	cws	Clean Perforations	Office o				41
			eceived of Oil and Garage 2 3 2022	Listed Below			



CalBreak™ 5700	cws	Breaker					
					Listed Below		
MBC 12:3	cws	Microbiocide					
					Listed Below		
DWP-NE1	cws	Non-Emulsifier					
					Listed Below		
Sand (Proppant)	cws	Propping Agent					
					Listed Below		
CalGel™ 4000	cws	Gel Slurry					
					Listed Below		
DynaScale™ 3511	cws	Scale Inhibitor					
					Listed Below		
DynaRate™ 6459	cws	Friction Reducer					
					Listed Below		
CalGuard™ 9100	cws	Corrosion Inhibitor					
			AUG wv be	O#	Listed Below		
Other Chemical (s)	Listed Above	See Trade Name	Departm	RECE!			
		Totection	2 3 2022	RECEIVED Office of Oil and Gas			



				Listed Below			
ems above are	Trade Names with the	evention of Base V	Vater Items below are the indi-	vidual inpredients			
	Trade Manual Hilly time	SACOPHON OF DUIS V	Crystalline silica (Quartz)	,	100.00000	7.49971	
		4	Hydrochloric acid	7647-01-0	37.00000	0.18183	
		1	Calcite	471-34-1	1.00000	0.04945	
			Illite	12173-60-3	1.00000	0.02555	
			Apatite	64476-38-6	0.10000	0.00750	
		1	Biotite	1302-27-8	0.10000	0.00750	
			Goethite	1310-14-1	0.10000	0.00750	
			Distillates (petroleum), hydrotreated middle	64742-46-7	60.00000	0.00626	
			Guar gum	9000-30-0	60.00000	0.00626	
			Glutaraldehyde	111-30-8	14.00000	0.00327	
			Ilmenite	98072-94-7	0.10000	0.00255	
			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	0.00052	
			Isopropanol	67-63-0	30.00000	0.00032	
			Dimethylcocoamine, bis (chloroethyl) ether, diquaternary ammonium salt	68607-28-3	20.00000	0.00021	
	Environmental Proteotion	AUG WV De	Oxirane, 2-methyl-, polymer with oxirane, monodecyl ether	37251-67-5	1,50000	0.00016	
	Tal.	RECEIVED ICE OF OIL SHEET	Ethylene Glycol	107-21-1	40.00000	0.00013	
	rot	WED Sand Ga	Methanol	67-56-1	10.00000	0.00011	
	90	Gas Gas	Ammonium chloride ((NH4)Cl)	12125-02-9	5.00000	0.00008	



	Distillates hydrotreate	(4742-47-8	3.00000	0.00008	
	Diethylene monometh		4590-94-8	20.00000	0.00007	
	Amines, co	oco alkyl 61	1788-93-0	5.00000	0.00005	
	Substituted chloride	d ammonium Pr	roprietary	5.00000	0.00005	Proprietary CAS
	Hydrogen (H2O2)	peroxide 77	722-84-1	8.00000	0.00004	
	Formic aci	d 64	4-18-6	10.00000	0.00003	
	Ethoxylate	d Alcohols 68	8131-39-5	10.00000	0.00003	
		zyl chloride-	2480-70-7	10.00000	0.00003	
	Cinnamald	ehyde 10	04-55-2	10.00000	0.00003	
	Isopropyl a	ilcohol 67	7-63-0	5.00000	0.00002	
	Proprietary	Polymer 1 Pr	roprietary			Proprietary CAS & Additive Concentration
	Inorganic S	Salt Pr	roprietary			Proprietary CAS & Additive Concentration
	Organic Ad	cid Ether Pr	roprietary			Proprietary CAS & Additive Concentration
	Inorganic A	Acid Salt Pr	roprietary			Proprietary CAS & Additive Concentration

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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^{*} 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

