

west virginia department of environmental protection

Office of Oil and Gas 601 57th Street, S.E. Charleston, WV 25304 (304) 926-0450 fax: (304) 926-0452

Austin Caperton, Cabinet Secretary www.dep.wv.gov

Thursday, May 3, 2018 WELL WORK PERMIT Horizontal 6A / New Drill

SWN PRODUCTION COMPANY, LLC POST OFFICE BOX 12359

SPRING, TX 773914954

Permit approval for NICK BALLATO BRK 5H Re: 47-009-00248-00-00

This well work permit is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to any additional specific conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas Inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days of completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

Per 35 CSR 4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0450.

James A. Martin

Chief

Operator's Well Number:

NICK BALLATO BRK 5H

Farm Name: NICHOLAS & CHRISTOPHER

U.S. WELL NUMBER: 47-009-00248-00-00

Horizontal 6A New Drill

Date Issued: 5/3/2018

API Number:	

PERMIT CONDITIONS 4700900248

West Virginia Code § 22-6A-8(d) allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

CONDITIONS

- 1. This proposed activity may require permit coverage from the United States Army Corps of Engineers (USACE). Through this permit, you are hereby being advised to consult with USACE regarding this proposed activity.
- 2. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code § 22-6A-5a (12), which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than one hundred (100) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
- 3. When compacting fills, each lift before compaction shall not be more than 12 inches in height, and the moisture content of the fill material shall be within limits as determined by the Standard Proctor Density test of the actual soils used in specific engineered fill, ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort, to achieve 95 % compaction of the optimum density. Each lift shall be tested for compaction, with a minimum of two tests per lift per acre of fill. All test results shall be maintained on site and available for review.
- 4. Operator shall install signage per § 22-6A-8g (6) (B) at all source water locations included in their approved water management plan within 24 hours of water management plan activation.
- 5. Oil and gas water supply wells will be registered with the Office of Oil and Gas and all such wells will be constructed and plugged in accordance with the standards of the Bureau for Public Health set forth in its Legislative rule entitled *Water Well Regulations*, 64 C.S.R. 19. Operator is to contact the Bureau of Public Health regarding permit requirements. In lieu of plugging, the operator may transfer the well to the surface owner upon agreement of the parties. All drinking water wells within fifteen hundred feet of the water supply well shall be flow tested by the operator upon request of the drinking well owner prior to operating the water supply well.
- 6. Pursuant to the requirements pertaining to the sampling of domestic water supply wells/springs the operator shall, no later than thirty (30) days after receipt of analytical data provide a written copy to the Chief and any of the users who may have requested such analyses.
- 7. 24 hours prior to the initiation of the completion process the operator shall notify the Chief or his designee.
- 8. During the completion process the operator shall monitor annular pressures and report any anomaly noticed to the chief or his designee immediately.
- 9. If any explosion or other accident causing loss of life or serious personal injury occurs in or about a well or well work on a well, the well operator or its contractor shall give notice, stating the particulars of the explosion or accident, to the oil and gas inspector and the Chief, within 24 hours of said accident.
- 10. During the casing and cementing process, in the event cement does not return to the surface, the oil and gas inspector shall be notified within 24 hours.

API Number:
API Number

PERMIT CONDITIONS 4700900248

11. The operator shall provide to the Office of Oil and Gas the dates of each of the following within 30 days of their occurrence: completion of construction of the well pad, commencement of drilling, cessation of drilling, completion of any other permitted well work, and completion of the well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov.

WW-6B (04/15)

API NO. 47-009 -		
OPERATOR WELL	NO.	Nick Ballato BRK 5H
Well Pad Name:	Nick B	sliato SRK Pad

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION. OFFICE OF OIL AND GAS WELL WORK PERMIT APPLICATION

1) Well Operat	tor: SWN	Production (Co., LLC	4945	12924	009- Br	ooke 4-Cros	ss. 620-St	eubenville[
				Ope	rator ID	County	Distri		P.10
2) Operator's \	Well Numbe	r: Nick Balla	ato BRK	5H	Well F	ad Name:	Nick Ballato	BRK Pad	_
3) Farm Name	:/Surface Ow	/ner: Nick & C	Christopher	r Ballato	Public R	oad Access:	St. Johns F	Run Road	
4) Elevation, c	urrent groun	id: <u>959'</u>	F	Elevation	ı, propose	d post-cons	truction: 959	9'	
5) Well Type	(a) Gas Other	X	_ Oil _			derground			
	(b)If Gas	Shallow	х		Deep				
		Horizontal	x		_		-1	_	
6) Existing Pac	d: Yes or No	Yes			-	($\mathcal{L}_{\mathcal{L}}}}}}}}}}$	(/)1.1	6.18
7) Proposed Ta Target Formation	arget Format - Marcellus, Up-Di	ion(s), Depth ip well to the North	ı(s), Anti	cipated 7	Thickness Target Base	and Expector and Expector 5552', Anti-	ted Pressure(scipated Thickness-	5).	_
B) Proposed To									
) Formation a		-	Marcellu	s					
0) Proposed T			15130'						
1) Proposed H	Horizontal Le	g Length:	9017'					·	
.2) Approxima	ite Fresh Wa	ter Strata De	pths:	455'			· · · · · · · · · · · · · · · · · · ·		
3) Method to	Determine F	resh Water [Depths:	Nearby	water we	əli			
4) Approxima	ite Saltwater	Depths: 51	0'- Salini	ty Profile					
5) Approxima	ite Coal Sear	n Depths: N	lot Prese	ent				Off	RECEIVED ice of Oil and G
6) Approxima	ite Depth to]	Possible Voice	d (coal m	ine, kars	st, other):	None that	we are awa		AN 2 2 2018
7) Does Propo	osed well loc ing or adjace	ation contain nt to an activ	ı coal sea e mine?		es		No X	Enviro	/ Department on nmental Protec
		C 37							
	ovide Mine L	nfo: Name:	•						
(a) If Yes, pro	ovide Mine I	nto: Name: Depth:							
	ovide Mine L								

Page 1 of 3

WW-6B (04/15)

API NO. 47- 009

OPERATOR WELL NO. Nick Ballato BRK SH
Well Pad Name: Nick Ballato BRK Pad

18)

CASING AND TUBING PROGRAM

ТҮРЕ	Size (in)	New or Used	<u>Grade</u>	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	20"	New	H-40	94#	100'	100'	CTS
Fresh Water	13 3/8"	New	H-40	48#	505'	505'	466 sx/CTS
Coal	9 5/8"	New	J-55	36#	1334'	1334'	504 sx/CTS
Intermediate	7"	New	J-55	20#	If Needed	If Needed	If Needed/As Needed
Production	5 1/2"	New	P-110	20#	15130'	15130'	feed \$16 soffal 2249 satisface incomed:
Tubing	2 3/8"	New	P-110	4.7#	Approx. 5540'	Approx. 5540'	, , , , , , , , , , , , , , , , , , ,
Liners							

C-1500 1.16.18

ТҮРЕ	Size (in)	Wellbore Diameter (in)	<u>Wall</u> <u>Thickness</u> <u>(in)</u>	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	20"	30"	0.25	2120	81	Class A	
Fresh Water	13 3/8"	17.5"	0.380	2740	633	Class A	1.19/50% Excess
Coal	9 5/8"	12 1/4"	0.395	3950	1768	Class A	1.19/50% Excess
Intermediate	7"	· 8 3/4"	0.317	4360	3250	Class A	
Production	5 1/2"	8 3/4"	0.361	12360	9500	Class A	
Tubing	2 3/8"	4.778"	0.190			0.00071	112000 /0 EXCESS
Liners							

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PACKERS

JAN 2 2 2018

Kind:	10K Arrowset AS-1X	Environ	Department of mental Protection
Sizes:	5 1/2"		
Depths Set:			

WW-6B (10/14) API NO. 47-009

OPERATOR WELL NO. Nick Ballato BRK 5H Well Pad Name: Nick Ballato BRK Pad

19)	Describe r	proposed well	work,	including	the drill	ing and	plugging	back of a	any pilot hole:

Drill and stimulate any potential zones between and including the Benson to Marcellus. **If we should encounter a void place basket above and below void area- balance cement to bottom of void and grout from basket to surface or run external casing packer/cementing stage tool above void interval and perform 2 stage cementing operation dependent upon depth of void. Run casing not less than 20' below void nor more than 75' below void. (*If freshwater is encountered deeper than anticipated it must be protected, set casing 50' below and cts.)

20) Describe fracturing/stimulating methods in detail, including anticipated max pressure and max rate:

Well will be perforated within the target formation and stimulated with a slurry of water, sand, and chemical additives at a high rate. This will be performed in stages with the plug and perf method along the wellbore until the entire lateral has been stimulated within the target formation. All stage plugs are then drilled out and the well is flowed back to surface. The well is produced through surface facilities consisting of high pressure production unites, vertical separation units, water and oil storage tanks. Max press and anticipated max rate- 9000 lbs @ 100 barrels a minute.

- 21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 10.91
- 22) Area to be disturbed for well pad only, less access road (acres): 8.0
- 23) Describe centralizer placement for each casing string:

All casing strings will be ran with a centralizer at a minimum of 1 per every 3 joints of casing.

24) Describe all cement additives associated with each cement type:

See Attachment ***

25) Proposed borehole conditioning procedures:

All boreholes will be conditioned with circulation and rotation for a minimum of one bottoms up and Office of Oil and Gas

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WV Department of Environmental Protection

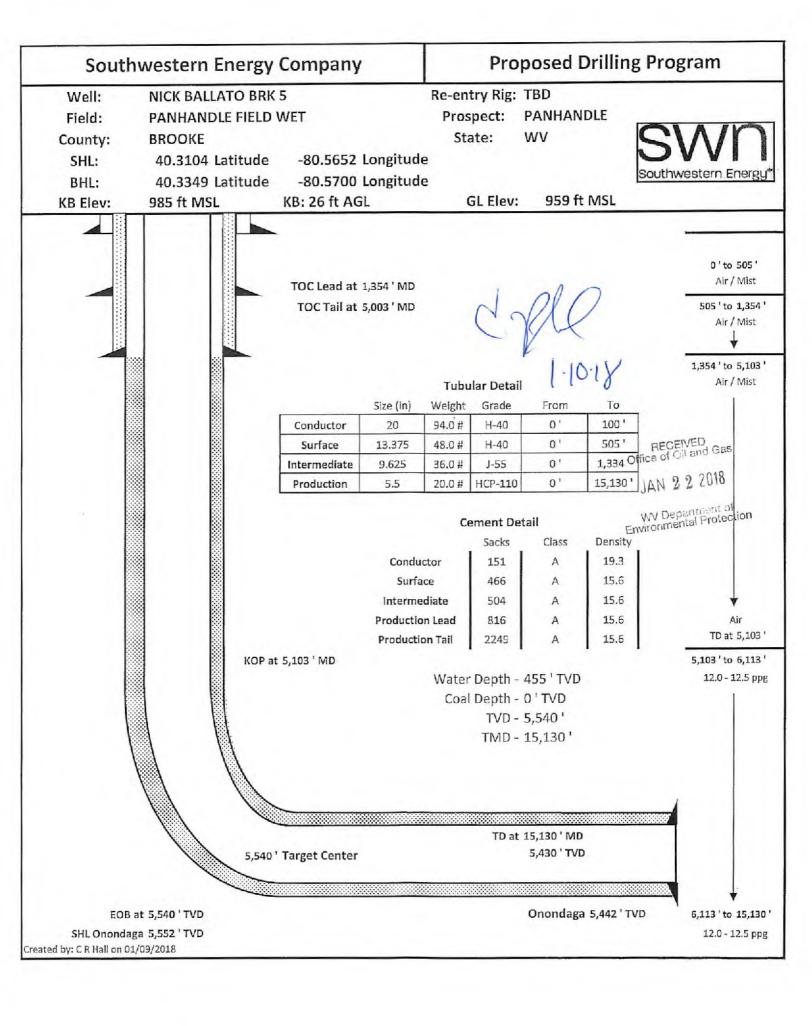
*Note: Attach additional sheets as needed.

Schlumberger Cement Additives

		Schlamber	ger Cement Additives	
	Product Name	Product Use	Chemical Name	CAS Number
Surface	S001	accelerator	calcium chloride	10043-52-4
Intermediate Surface	5001	accelerator	calcium chloride	10043-52-4
_	D080	dispersant	sodium polynaphthalene sulfonate	9008-63-3
ğ "	D801 retarder D801 antifoam		aromatic polymer derivative	propriatary
죠	D047	antifoam	polypropylene glycol	25322-69-4
	D167	fluid loss	aliphatic amide polymer	propriatary
	D154	extender	non-crystalline silica	7631-86-9
	D400	gas migration	boric acid	10043-35-3
			polypropylene glycol	25322-69-4
P P P	D046	antifoam	fullers earth (attapulgite)	8031-18-3
Production-Lead		ļ	chrystalline silica	14808-60-7
岩	D201	retarder	metal oxide	propriatary
큫			sulphonated synthetic polymer	propriatary
<u> </u>	D202	dispersant	formaldehyde (impurity)	propriatary
			polypropylene glycol	25322-69-4
	D046	antifoam	fullers earth (attapulgite)	8031-18-3
ł	D167	fluid loss	aliphatic amide polymer	propriatary
₹			sodium polynaphthalene sulfonate	9008-63-3
Ē	D065	dispersant	sodium sulfate	7757-82-6
Production-Tall			chrystalline silica	14808-60-7
ĝ	D201	retarder	metal oxide	propriatary
J. J.	D153	anti-settling	chrystalline silica	14808-60-7

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SWN Production Company, LLC 179 Innovation Drive Jane Lew, WV 28378 Tel: 304 884 1610 Fax: 304 471 2497 www.swn.com

December 5, 2017

Ms. Laura Adkins Office of Oil & Gas 601 57th Street Charleston, WV 25304 4700900248

RE: Proposed New Well Nick Ballato BRK 5H

Dear Ms. Adkins

SWN has reviewed the area of the above mentioned well and discovered no shallow wells within 500' of the lateral. This well is situated on the Ballato's property, in Cross Creek District, Brooke County, West Virginia.

If you have any questions or desire additional information, please me at 304-884-1614

Thank you.

Sincerely,

Dee Southall

Senior Regulatory Analyst

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WV Department of Environmental Protection

RE NV+°

WW-9 (2/15)

API Number	47 -	009		
One	rator	. Well	No	Nick Ballato BRK 5H

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name SWN Production Co., LLC	OP Code 494512924
Watershed (HUC 10) Upper Ohio North	Quadrangle Steubenville East
Do you anticipate using more than 5,000 bbls of water to compl	lete the proposed well work? Yes V No
Will a pit be used? Yes No _✓	
If so, please describe anticipated pit waste:	
Will a synthetic liner be used in the pit? Yes	No If so, what ml.?
Proposed Disposal Method For Treated Pit Wastes:	
Land Application	
Underground Injection (UIC Permit	t Number 34-155-22403, 34-059-24067, 34-119-28776, 34-167-23862, 34-155-23796, 34-121-23995, 34-155-21893
Reuse (at API Number_at next anticipate Off Site Disposal (Supply form WW	ted well, API# will be included with the WR-34/DDMR &/or permit addendum.
Other (Explain flow back fluids will be	e put in steel tanks and reused or taken to a permitted disposal facility
Will closed loop system be used? If so, describe: Yes	
Drilling medium anticipated for this well (vertical and horizontal	al)? Air, freshwater, oil based, etc. Ardrill to XOP, fluid drill with SOBM from KOP to TD
-If oil based, what type? Synthetic, petroleum, etc. Sy	Inthetic Oil Base
Additives to be used in drilling medium? Attachment 3A	
Drill cuttings disposal method? Leave in pit, landfill, removed	offsite, etc. landfill
-If left in pit and plan to solidify what medium will be	used? (cement, lime, sawdust)
Argen Landfill 10072, Apex Sanitary Landfill 06	=- 1032, Short Creek SWF-1034,Carbon Limestone MSWL018781, Wetzel County 1021 อ-บ8438, Brooke Co SVVF-1013, Valley 100280
West Virginia solid waste facility. The notice shall be provided	Gas of any load of drill cuttings or associated waste rejected at any within 24 hours of rejection and the permittee shall also disclose
where it was properly disposed.	
on August 1, 2005, by the Office of Oil and Gas of the West Vi provisions of the permit are enforceable by law. Violations of law or regulation can lead to enforcement action. I certify under penalty of law that I have personally application form and all attachments thereto and that, based	conditions of the GENERAL WATER POLLUTION PERMIT issued irginia Department of Environmental Protection. I understand that the f any term or condition of the general permit and/or other applicable y examined and am familiar with the information submitted on this d on my inquiry of those individuals immediately responsible for true, accurate, and complete. I amaginate that there are significant ility of fine or imprisonment. JAN 2 2 2018
	WV Department of
Company Official (Typed Name) Dee Southall Company Official Title Senior Regulatory Analyst	Environmental Protection
Company Official Title Senior Regulatory Analyst	and the state of t
Subscribed and sworn before me this 5th day of	In an and and and
Subscribed and sworn before me this day of	Mamber 2017
Dittany K Mody	Notary Public Notary Public State of West Wingon
My commission expires	BRITTANY F WOODY Janz Old Fikins Road Brickhannon, Wy Sales

SWN Production Co., LLC			
Proposed Revegetation Treatment: Acres Disturbed	10.91	Prevegetation p	Н
Lime as determined by pH test min. 2 Tons/acre or to corr	ect to pH 8.0		
Fertilizer type 10-20-20			
Fertilizer amount 600	lbs/acre		
Mulch Hay/Straw 2.5	Tons/acre		
	Seed Mixtures		
Temporary		Perm	anent
Seed Type Ibs/acre Attachment 3B		Seed Type	lbs/acre
Attach: Drawing(s) of road, location, pit and proposed area for provided) Photocopied section of involved 7.5' topographic shee Plan Approved by:		ess engineered plans ir	ncluding this info have be
_{Title:} Oil and Gas Inspector	Date:	12.19.17	RECEIVED Office of Oil and Gas
Field Reviewed? (Yes			
Tela Reviewed.	() No		JAN 2 2 2018 W Department of

Attachment 3A <u>Drilling Mediums</u>

Synthetic Oil

Brine

Barite

Calcium Chloride

Lime

Organophilic Bentonite

Primary and Secondary Emulsifiers

Gilsonite

Calcium Carbonate

Friction Reducers

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WVD Seeding Specification



To Order Seed contact Lyndsi Eddy Flippo office 570-996-4271 cell 501-269-5451 lyndsi_eddy@swn.com

(please allow 7 to 10 days for delivery)

NON-ORGANIC PROPERTIES		
Seed Mixture: ROW Mix	SWN	N Supplied
Orchardgrass	40%	
Timothy	15%	
Annual Ryegrass	15%	
Brown Top Millet	5%	
Red Top	5%	
Medium Red Clover	5%	All legumes are
White Clover	5%	innoculated at 5x normal
Birdsfoot Trefoil	5%	rate
Rough Bluegrass	5%	
Apply @ 100lbs per acre April 16th- Oct. 14th		Apply @ 200lbs per acre Oct. 15th- April 15th PLUS bs per acre of Winter Wheat

SUIL AIVIENDIVIENTS	
10-20-20 Fertilizer	*Apply @ 500lbs per Acre
Pelletized Lime	Apply @ 2 Tons per Acre
	*unless otherwise dictated by soil test results

Seeding Calculation Information:

1452' of 30' ROW/LOD is One Acre 871' of 50' ROW/LOD is One Acre 622' of 70' ROW/LOD is One Acre

Synopsis:

Every 622 linear feet in a 70' ROW/LOD, you should be using (2) 50lb bags of seed, (4) 50lb bags of fertilizer and (80) 50lb bags of Lime (2x seed in winter months + 50lb Winter Wheat/ac).

Special Considerations:

Landowner Special Considerations including CREP program participants require additional guidance that is not given here. Discuss these requirements with SWN supervision at the beginning of the project to allow time for special seed delivery.

ORGANIC PROPERTIES		
Seed Mixture: SWN Production Organ	ic Mix	SWN Supplied
Organic Timothy	50%	
Organic Red or White Clover	50%	
OR		
Organic Perennial Ryegrass	50%	
Organic Red or White Clover	50%	
Apply @ 100lbs per acre		Apply @ 200lbs per acre
April 16th- Oct. 14th		Oct. 15th- April 15th
Organic Fertilizer @ 200lbs per Acre		Pelletized Lime @ 2 Tons per Acre

Seed Mixture: Wetland Mix	SWN Supplied
VA Wild Ryegrass	20%
Annual Ryegrass	20%
Fowl Bluegrass	20%
Cosmos 'Sensation'	10%
Redtop	5%
Golden Tickseed	5%
Maryland Senna	5%
Showy Tickseed	5%
Fox Sedge	2.5%
Soft Rush	2.5%
Woolgrass	2.5%
Swamp Verbena	2.5%
Apply @ 25lbs per acre	Apply @ 50lbs per acre
April 16th- Oct. 14th	Oct. 15th- April 15th

MARCELLUS WELL DRILLING PROCEDURES AND WELL SITE SAFETY PLAN



SWN Production Company, LLC 179 Innovation Drive Jane Lew, West Virginia 26378

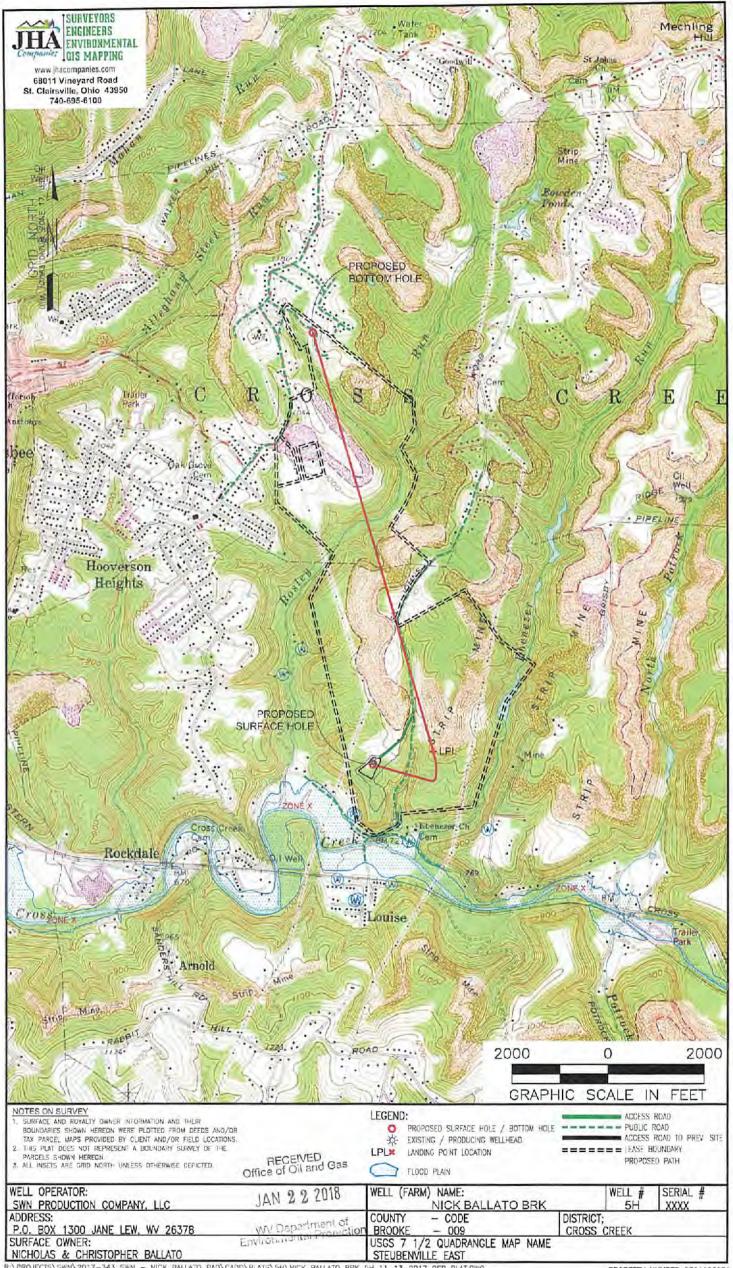
API NO. 47-XXX-XXXXX
WELL NAME: Nick Ballato BRK 5H
Steubenville East QUAD
Cross Creek DISTRICT
Brooke COUNTY, WEST VIRGINIA

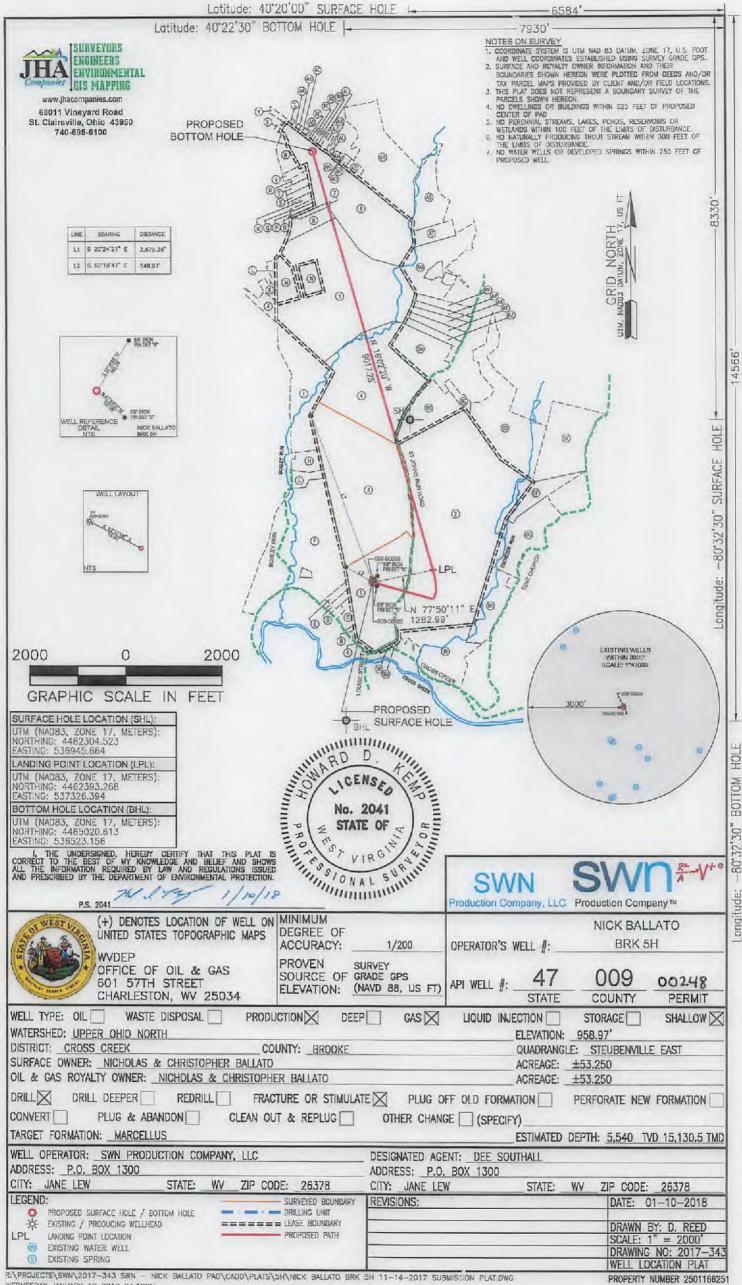
Submitted by:		
Dee Southall	Date:	12/5/2017
Senior Regulatory		
Title: Analyst	SWN P	roduction Co., LLC
Title: Oil + Gro Tymer	Date:	12-19.17
Approved by:		
	Date:	
Title:		

SWN PRODUCTION COMPANY, LLC - CONFIDENTIAL

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	WELL BORE TABLE FOR SURFACE / ROYALTY	OWNERS	
TRACT	SURFACE OWNER (S) / ROYALTY OWNER (R)	TAX PARCEL	ACRES
1	NICHOLAS & CHRISTOPHER BALLATO (S/R)	4-CC19-102.000	53.250
TRACT	SURFACE OWNER	TAX PARCEL	ACRES
2	GERALD E. GOURLEY	4-CC19-103.000	173.000
3	NICHOLAS & CHRISTOPHER BALLATO	4-CC19-192.000	100.044
4	DAVID R. REED	4-CC15-42.001	64.000
5	ANTHONY MARK RIHEL, DAVID RICHARD RIHEL & WILLIAM MARTIN JR. RIHEL	4-0015-27.000	123.470
6	MARK ANTHONY RIHEL	4-CC15F-22.00	7.000
7	RAY W. & VICKI M. NASH	4-CC15F-21.00	1.380
8	TIMOTHY GENE MORRIS	4-CC15F-40.00	68.600

TRACT	ADJOINING OWNERS TABLE SURFACE OWNER	TAX PARCEL	ACRES
A	ISABELLE BULLOCK	04-C19K-0003.0000	0.85
В	MARLENE D. & GREG A. FURDA	04-C19K-0002,0000	0.93
С	ISABELLE BULLOCK	04-C19K-0001.0000	3.67
D	JOHN A. & BARBARA A. MCCREARY	04-CC19-0100.0000	2.397
E	ISABELLE BULLOCK	04-CC19-0099.0000	2.15
F	ISABELLE BULLOCK	04-CC19-0097.0000	160.55
G	WILLIAM D. & SHERRY L. GALIANO	04-CC19-0092.0000	3.39
Н	PAUL MATTHEW MCQUILLIAN	04-CC19-0093.0000	5.667
1	WILLIAM D. & SHERRY L. GALIANO	04-CC19-0095.0000	32.00
J	KATHY J. AYERS	04-C15J-0221.0000	4.36
K	WILLIAM L. GADD	04-CC15-0031.0000	1.975
L	BRIDGET A. MCCORD	04-CC15-0031.0000	1.541
M	MONONGAHELA POWER CO	04-CC15-0029.0000	6.50
N	ANTHONY MARK RIHEL, DAVID RICHARD & WILLIAM MARTIN JR.	04-CC15-0023.0000	123.47
0	RAY W., JR. & VICKI M. NASH	04-C15F-0020.0000	0.65
P	RAY W., JR. & VICKI M. NASH	04-C15F-0020.0000	0.96
Q	RAY W., JR. & VICKI M. NASH	04-C15F-0019.0000	0.87
R	RAY W., JR. & VICKI M. NASH		1.35
S	1000 A 4 100 A 1000 A 1000 A	04-C15F-0016.0000	2.00
T	SHERIDAN H. BUFFINGTON SHERIDAN & JEANETTE BUFFINGTON	04-C15F-0015.0000	
	RICHARD REITTER	04-C15F-0014.0000 04-C15F-0013.0000	2.247
V	110000000000000000000000000000000000000		1.45
-	DAVID J. & LUANN A. DUPLINSKY	04-C15F-0011.0000	2.00
W	DAVID J. & LUANN A. DUPLINSKY	04-C15F-0010.0000	5.28
X	JOYCE ANN MOORE (L/E- ROSE MARIE HOMONO)	04-C15B-0101.0001	0.604
Y	JAMES G. & CHRISTINE Y. LULLY	04-C15B-0096.0000	1.07
Z	TIMOTHY G. & CARLA ANN MORRIS	04-C15B-0073.0000	0.40
AA	TIMOTHY G. & CARLA ANN MORRIS	04-C15B-0072.0000	0.36
AB	JOSEPH A. HAVELKA	04-C15B-0071.0000	0.37
AC	THEODORE T. & MARY E. PEARSON	D4-C15B-0070.0000	0.37
AD	THEODORE T. & MARY E. PEARSON	04-C15B-D069.0000	0.34
AE	THEODORE THOMAS & MARY ELLEN PEARSON	04-C15B-0068.0000	0.463
AF	ROBERT F., JR. ROUSH ETAL	04-C15B-0066.0000	0.488
AG	JOHN A. HORVATH	04-C15B-0065.0000	0.51
AH	JOHN A. HORVATH	04-C15B-0064.0000	0.51
Al	CURTIS D. HIPPENSTEEL, II	04-C15B-0063.0000	0.596
AU	DUANE EDMOND & AMY LEE GERRARD	04-C15B-0062.0000	1.20
AK	REBECCA WARD & LINDA KIMBLE (L/E-EDITH M. COOPER)	04-C15F-0033.0000	0.759
AL	DONNA M. LAUCK	04-C15F-0034.0000	0.281
AM	PATRICIA A. CRISS	04-C15F-0035.0000	1.04
AN	PATRICIA A. CRISS	04-C15F-0036.0000	0.66
AO	XXXXX	XXXXX	XXXXX
AP	CYNTHIA L. ORWICK	04-C15F-0037.0000	0.752
AQ	GERALD L. & JILL COSTELLO	04-C15F-0038.0000	2.005
AR	TIMOTHY G. MORRIS	04-C15F-0039.0000	40.42
AS	DAVID & MARY BETH WALLACE	04-C15G-0028.0000	15.19
AT	JEFFREY E. DAVIS	04-C15L-0068.0000	7.00
AU	JACK R. MINGER	04-C15L-0069.0000	26.83
AV	TIMOTHY J. & DELPHIA J. MILLER (L/E-MARJORIE MILLER)	04-C15L-0027.0000	5.24
AW	JOHN L. DEAN	04-C15L-0028.0000	4.20
AX	GERALD E. GOURLEY	04-C15L-0029.0000	6.00
AY	FORREST D. TRAHERN	04-CC15-0047.0000	6.03
AZ	DANIEL BARNHART (LC-WILLIAM & VICKY L. HERCULES)	04-CC15-0045.0000	4.51
BA	DAVID R. REED	04-CC15-0043.0000	13.40
88	GERALD E. GOURLEY	04-CC15-0042.0000	19.39
BC	LARRY CARL ARNETT & PATRICIA ILENE (TRUSTEES)	04-CC15-0064.0000	2.67
BD	GARY LEE & SANDRA L. LOAR	04-CC15-0052.0000	69.49
BE	JASON P. NUZUIM	04-CC15-0070.0000	59.19
BF	CLARENCE I & DORIS JONES	04-CC19-0111.0000	11.50
BG	GERALD L., SR. & CONSTANCE F. BUCY	04-0019-0117.0000	24.06
BH	SARAH ELIZABETH PARR	04-CC19-0119.0000	34.09
BI	GERALD E. GOURLEY	04-C19K-0057.0000	28.40
BJ	HATTIE MARCUM	04-C19K-0054.0000	0.65
BK	XXXXX	XXXXX	0.24

REVISIONS:	COMPANY:	SWN roduction Company, LLC		
	OPERATOR'S WELL #:	NICK BA BRK		DATE: 01-10-2018 DRAWN BY: D. REED
	DISTRICT: CROSS CREEK	COUNTY: BROOKE	STATE: WV	SCALE: N/A DRAWING NO: 2017-343 WELL LOCATION PLAT

WW-6A1 (5/13)

Operator's Well No. NICK BALLATO BRK 5H

INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE Chapter 22, Article 6A, Section 5(a)(5) IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that —

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Lease Name or				
Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
C.	as Attached Exhibit "A"			

See Attached Exhibit "A

Acknowledgement of Possible Permitting/Approval In Addition to the Office of Oil and Gas

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

RECEIVED
Office of Oil and Gas

WV Division of Water and Waste Management

WV Division of Natural Resources WV Division of Highways

- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

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WV Department of Environmental Protection

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator:	SWN Production Company, L.L.C.	
By:	The Carino	_
Its:	Staff Landman	_

EXHIBIT "A"

Attached to and made a part of the State of West Virginia Oil and Gas Permit Form, WW-6A1, by SWN Production Company, LLC., 407at 0 0 9 0 0 2 4 8 Nick Ballato 5H Brooke County, West Virginia

#	ТМР	SURFACE OWNER	DEEDED ACREAGE	LEASE#	LESSOR	LESSEE	ROYALTY	BK/PG
1)	4-CC19-102.000	Nicholas & Christopher Ballato	53.250	730066-001	Nicholas Jay Ballato, Christopher A Ballato & Ruth V Ballato	Great Lakes Energy Partners, L.L.C Range Resources - Appalachia LLC Chesapeake Appalachia, L.L.C. SWN Production Company, L.L.C.	14.00%	9/720 20/733 10/552 30/480
2)	4-CC19-103.000	Gerald E. Gourley	173.000	730109-000	Gerald E. Gourley	Chesapeake Appalachia, L.L.C. SWN Production Company, L.L.C.	12.50%	9/739 20/733 10/552 30/480
3)	4-CC19-192.000	Nicholas & Christopher Ballato	100.044	730066-001	Nicholas Jay Ballato, Christopher A Ballato & Ruth V Ballato	Great Lakes Energy Partners, L.L.C Range Resources-Appalachia LLC Chesapeake Appalachia, L.L.C. SWN Production Company, L.L.C.	14.00%	9/720 20/733 10/552 30/480
į				735827-002	Betty Ann Williamson Burrough	Chesapeake Appalachia, L.L.C. SWN Production Company, L.L.C.	18.00%	14/661 30/480
				735827-003	Eloise V. McCombs	Chesapeake Appalachia, L.L.C. SWN Production Company, L.L.C.	18.00%	15/31 30/480
				735827-004	Robert K. Smith & Shelley Smith	Chesapeake Appalachia, L.L.C. SWN Production Company, L.L.C.	18.00%	14/762 30/480
4)	4-CC15-42.001	David R. Reed	64.000	735827-001	David R. Reed	Chesapeake Appalachia, L.L.C. SWN Production Company, L.L.C.	18.00%	14/294 30/480
				735827-002	Betty Ann Williamson Burrough	Chesapeake Appalachia, L.L.C. SWN Production Company, L.L.C.	18.00%	14/661 30/480
				735827-003	Eloise V. McCombs	Chesapeake Appalachia, L.L.C. SWN Production Company, L.L.C.	18.00%	15/31 30/480
				735827-004	Robert K. Smith & Shelley Smith	Chesapeake Appalachia, L.L.C. SWN Production Company, L.L.C.	18.00%	14/762 30/480
5)	4-CC15-27.000	Anthony Mark Rihel, David Richard Rihel & William Martin Jr. Rihel	123.470	732971-001	David Richard Rihel & Susan Rihel	Chesapeake Appalachia, L.L.C. SWN Production Company, L.L.C.	18.00%	23/196 30/480
		William Martin at the Control		732971-002	Mark Anthony Rihel & Cathy Rihel	Chesapeake Appalachia, L.L.C. SWN Production Company, L.L.C.	18.00%	23/202 30/480
				732971-003	William Martin Rihel Jr. & Donna Rihel	Chesapeake Appalachia, L.L.C. SWN Production Company, L.L.C.	18.00%	23/467 30/480
6)	4-CC15F-22.00	Mark Anthony Rihel	7.000	733067-000	Mark Anthony Rihel & Cathy Rihel	Chesapeake Appalachia, L.L.C. SWN Production Company, L.L.C.	18.00%	24/100 30/480
71	4-CC15F-21.00	Ray W. & Vicki M. Nash	1.380		Ray W. & Vicki M. Nash	SWN Production Company, L.L.C.	17.00%	38/598
۳	4-CCT31-51.00	they trick atomitation				Range Resources - Appalachia, LLC		10/253
8)	4-CC15F-40.00	Timothy Gene Morris	68.600	730168-000	Timothy Gene Morris and Carla A. Morris	Chesapeake Appalachia, L.L.C. SWN Production Company, L.L.C.	12.50%	10/552 30/480



SWN Production Company, LLC 179 Innovation Drive Jane Lew, WV 26378 Tel: 304 884 1610 Fax: 304 471 2497 www.swn.com

January 18, 2018

Ms. Laura Adkins WV DEP Office of Oil & Gas 601 57th St., SE Charleston, WV 25304

RE: SWN's proposed New Well: Nick Ballato BRK 5H in Brooke County, West Virginia, Drilling under St. Johns Road.

Dear Ms. Adkins:

SWN Production Company, LLC ("SWN") is applying for a drilling permit for the above referenced well. The State of West Virginia has raised some concern as to SWN's right to drill under St. Johns Road. Please be advised that SWN has leased all mineral owners under said route as it relates to the above-referenced well and unit.

Thank you.

Sincerely,

Tanner Quiring Staff Landman

SWN Production Company, LLC

RECEIVED Office of Cil and Gas

JAN 2 2 2018

WV Department of Environmental Protection

The Right People doing the Right Things, wisely investing the cash flow from our underlying Assets, will create Value+®

Date of Notice Certification:

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE CERTIFICATION

API No. 47- 009

	1 1		ame: Nick Ballato BRK Pad
Notice has l	oeen given:		
		§ 22-6A, the Operator has provided the requ	ired parties with the Notice Forms
	tract of land as follows:		
State:	West Virginia	TITM NAD 02	536945.664
County:	009- Broake	Northing: 4	4462304.523
District:	Cross Creek	1 00110 110110 1100000	St. Johns Run Road
Quadrangle:	Steubenville East	Generally used farm name:	Nick Ballato
Watershed:	Upper Ohio North		
it has provid information r of giving the requirements Virginia Cod of this article	ed the owners of the surface descril equired by subsections (b) and (c), se surface owner notice of entry to su of subsection (b), section sixteen of e § 22-6A-11(b), the applicant shall thave been completed by the applicant	hall contain the following information: (14) bed in subdivisions (1), (2) and (4), subsection sixteen of this article; (ii) that the requirever pursuant to subsection (a), section tender this article were waived in writing by the ender proof of and certify to the secretary that.	ection (b), section ten of this article uirement was deemed satisfied as a en of this article six-a; or (iii) the he surface owner; and Pursuant to hat the notice requirements of section
	rator has properly served the require		A CONTRACTOR OF THE PARTY OF TH
*PLEASE CH	SCK ALL THAT APPLY		OOG OFFICE USI ONLY
☐ 1. NO	TICE OF SEISMIC ACTIVITY or	■ NOTICE NOT REQUIRED BECAUS SEISMIC ACTIVITY WAS CONDUCTED	
	TICE OF ENTRY FOR PLAT SURV	YEY or NO PLAT SURVEY WAS CON	NIDUCTED
■ 2. NO	HEE OF ENTRY FOR FEAT SOR	ET OF E PROTESTI SERVET WAS CO.	NDUCTED RECEIVED
	TICE OF INTENT TO DRILL or	☐ NOTICE NOT REQUIRED BECAUS NOTICE OF ENTRY FOR PLAT SURVE WAS CONDUCTED or	SE RECEIVED/
		☐ NOTICE NOT REQUIRED BECAUS NOTICE OF ENTRY FOR PLAT SURVE	SE RECEIVED/ NOT REQUIRE
■ 3. NO		☐ NOTICE NOT REQUIRED BECAUS NOTICE OF ENTRY FOR PLAT SURVE WAS CONDUCTED OF ☐ WRITTEN WAIVER BY SURFACE	SE RECEIVED/ NOT REQUIRE
■ 3. NO	TICE OF INTENT TO DRILL or	☐ NOTICE NOT REQUIRED BECAUS NOTICE OF ENTRY FOR PLAT SURVE WAS CONDUCTED OF ☐ WRITTEN WAIVER BY SURFACE	SE RECEIVED/ NOT REQUIRE

Required Attachments:

The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that have been provided to the required parties and/or any associated written waivers. For the Public Notice, the operator shall attach a copy of the Class II Legal Advertisement with publication date verification or the associated Affidavit of Publication. The attached Notice Forms and Certifications of Notice shall serve as proof that the required parties have been noticed as required under West Virginia Code § 22-6A-11(b), the Certification of Notice to the person may be made by affidavit of Publication of Notice to the per

Certification of Notice is hereby given:

, have read and understand the notice requirements within West Virginia Code § 22-THEREFORE, I 6A. I certify that as required under West Virginia Code § 22-6A, I have served the attached copies of the Notice Forms, identified above, to the required parties through personal service, by registered mail or by any method of delivery that requires a receipt or signature confirmation. I certify under penalty of law that I have personally examined and am familiar with the information submitted in this Notice Certification and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator: SWN Production Co., LL By:

Dee Southall

Its: Senior Regulatory Analyst

Telephone: 304-884-1610 The State of the last

Address: P.O. Box 1300

Jane Lew. WV 26378

Facsimile: 304-884-1690

Dee_Southall@swn.com Email:

NOTARY SEAL

Charles Inch .a.e it is stivirginia YOUNG SODY - Read WV 25201

Tipiles November 27, 2022

Subscribed and sworn before me this

Notary Public

My Commission Expires

Oil and Gas Privacy Notice:

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

> RECEIVED Gas JAN 22 2018 WV Department of Environmental Protection

WW-6A (9-13) API NO. 47-009

OPERATOR WELL NO. Nick Ballato BRK 5H

Well Pad Name: Nick Ballato BRK Pad

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF APPLICATION

Notice Time Requirement: notice shall be provided no later than	the filing date of permit application.
Date of Notice: Date Permit Application Filed:	K)18
PERMIT FOR ANY CERTIFICATE OF APPI	ROVAL FOR THE
==	N IMPOUNDMENT OR PIT
Delivery method pursuant to West Virginia Code § 22-6A-10((b)
☐ PERSONAL ☑ REGISTERED ☐ METHO	OD OF DELIVERY THAT BEOLUBES A
	DD OF DELIVERY THAT REQUIRES A PT OR SIGNATURE CONFIRMATION
the surface of the tract on which the well is or is proposed to be local oil and gas leasehold being developed by the proposed well work, if described in the erosion and sediment control plan submitted pursual operator or lessee, in the event the tract of land on which the well proposed work, if the surface tract is to be used for the surface tract or trackwell work, if the surface tract is to be used for the placement, construmpoundment or pit as described in section nine of this article; (5) A nave a water well, spring or water supply source located within one to provide water for consumption by humans or domestic animals; and proposed well work activity is to take place. (e)(1) If more than three subsection (b) of this section hold interests in the lands, the applicant records of the sheriff required to be maintained pursuant to section expression of this article to the contrary, notice to a lien holder is not a cook of the section of this article to the contrary, notice to a lien holder is not a cook of the surface owner subject to notice and water testing a water purveyor or surface owner subject to notice and water testing a surface owner subject to notice and water testing a	r signature confirmation, copies of the application, the erosion and he well plat to each of the following persons: (1) The owners of record of ted; (2) The owners of record of the surface tract or tracts overlying the the surface tract is to be used for roads or other land disturbance as not to subsection (c), section seven of this article; (3) The coal owner, apposed to be drilled is located [sic] is known to be underlain by one or coal overlying the oil and gas leasehold being developed by the proposed action, enlargement, alteration, repair, removal or abandonment of any my surface owner or water purveyor who is known to the applicant to housand five hundred feet of the center of the well pad which is used to (6) The operator of any natural gas storage field within which the elements in common or other co-owners of interests described in the may serve the documents required upon the person described in the light, article one, chapter eleven-a of this code. (2) Notwithstanding any notice to a landowner, unless the lien holder is the landowner. W. Va. ovide the Well Site Safety Plan ("WSSP") to the surface owner and any as provided in section 15 of this rule.
☑ Application Notice ☑ WSSP Notice ☑ E&S Plan Notice ☑ SURFACE OWNER(s)	☑ Well Plat Notice is hereby provided to: ☐ COAL OWNER OR LESSEE
Name; Nicholas Jay Ballato & Christopher A. Ballato	Name: Nicholas Jay Ballato & Christopher A. Ballato
Address: 556 Rear Rockdale Road	Address: 556 Rear Rockdale Road
Follansbee, WV 26037	Follansbee, WV 26037
Name:	□ COAL OPERATOR
Address:	Name:
X	Address:
SURFACE OWNER(s) (Road and/or Other Disturbance)	
Name:	☑ SURFACE OWNER OF WATER WELL
Address:	AND/OR WATER PURVEYOR(s)
	Name: See Attachment 13A
Name:	Address:
Address:	
	□ OPERATOR OF ANY NATURAL GAS STORAGE FIELD
SURFACE OWNER(s) (Impoundments or Pits)	Name:
Name:	Address: RECEIVED Gas
Address:	
	*Please attach additional forms if necessary
	nenartment of
	JAN Department of WV Department of Environmental Protection

RECEIVED Office of Oil and Gas

IAN 2 2 2018

API NO. 47-009

OPERATOR WELL NO. Nick Ballato BRK 5H Well Pad Name: Nick Ballato BRK Pad

Notice is hereby given:

WV Department of
Pursuant to West Virginia Code § 22-6A-10(b), notice is hereby given that the undersigned well operator has applied for a permit for well work or for a certificate of approval for the construction of an impoundment or pit.

This Notice Shall Include:

Pursuant to W. Va. Code § 22-6A-10(b), this notice shall include: (1) copies of the application; (2) the erosion and sediment control plan required by section seven of this article; and (3) the well plat.

Pursuant to W. Va. Code § 22-6A-10(f), this notice shall include: (1) a statement of the time limits for filing written comments; (2) who may file written comments; (3) the name and address of the secretary for the purpose of filing the comments and obtaining additional information; and (4) a statement that the persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

Pursuant to W. Va. Code R. § 35-8-5.7.a, the operator shall provide the Well Site Safety Plan to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Pursuant to W. Va. Code R. § 35-8-15.2.c, this notice shall: (1) contain a statement of the surface owner's and water purveyor's right to request sampling and analysis; (2) advise the surface owner and water purveyor of the rebuttable presumption for contamination or deprivation of a fresh water source or supply; advise the surface owner and water purveyor that refusal to allow the operator to conduct a pre-drilling water well test constitutes a method to rebut the presumption of liability; (3) advise the surface owner and water purveyor of his or her independent right to sample and analyze any water supply at his or her own expense; advise the surface owner and water purveyor whether or not the operator will utilize an independent laboratory to analyze any sample; and (4) advise the surface owner and or water purveyor that he or she can obtain from the Chief a list of water testing laboratories in the subject area capable of and qualified to test water supplies in accordance with standard acceptable methods.

Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oiland-gas/pages/default.aspx.

Well Location Restrictions

Pursuant to W. Va. Code § 22-6A-12, Wells may not be drilled within two hundred fifty feet measured horizontally from any existing water well or developed spring used for human or domestic animal consumption. The center of well pads may not be located within six hundred twenty-five feet of an occupied dwelling structure, or a building two thousand five hundred square feet or larger used to house or shelter dairy cattle or poultry husbandry. This limitation is applicable to those wells, developed springs, dwellings or agricultural buildings that existed on the date a notice to the surface owner of planned entry for surveying or staking as provided in section ten of this article or a notice of intent to drill a horizontal well as provided in subsection (b), section sixteen of this article was provided, whichever occurs first, and to any dwelling under construction prior to that date. This limitation may be waived by written consent of the surface owner transmitted to the department and recorded in the real property records maintained by the clerk of the county commission for the county in which such property is located. Furthermore, the well operator may be granted a variance by the secretary from these distance restrictions upon submission of a plan which identifies the sufficient measures, facilities or practices to be employed during well site construction, drilling and operations. The variance, if granted, shall include terms and conditions the department requires to ensure the safety and protection of affected persons and property. The terms and conditions may include insurance, bonding and indemnification, as well as technical requirements. (b) No well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the department shall be measured as follows: (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir. (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake. (3) For a groundwater source, the distance shall be measured from the wellhead or spring. The department may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary. (c) Notwithstanding the foregoing provisions of this section, nothing contained in this section prevents an operator from conducting the activities permitted or authorized by a Clean Water Act Section 404 permit or other approval from the United States Army Corps of Engineers within any waters of the state or within the restricted areas referenced in this section. (d) The well location restrictions set forth in this section shall not apply to any well on a multiple well pad if at least one of the wells was permitted prior to the effective date of this article. (e) The secretary shall, by December 31, 2012, report to the Legislature on the noise, light, dust and volatile organic compounds generated by the drilling of horizontal wells as they relate to the well location restrictions regarding occupied dwelling structures pursuant to this section. Upon a finding, if any, by the secretary that the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items WW-6A (8-13)

API NO. 47-009

OPERATOR WELL NO. Nick Ballato BRK 5H

Well Pad Name: Nick Ballato BRK Pad

examined in the study required by this subsection, the secretary shall have the authority to propose for promulgation legislative rules establishing guidelines and procedures regarding reasonable levels of noise, light, dust and volatile organic compounds relating to drilling horizontal wells, including reasonable means of mitigating such factors, if necessary.

Water Well Testing:

Pursuant to West Virginia Code § 22-6A-10(d), notification shall be made, with respect to surface landowners identified in subsection (b) or water purveyors identified in subdivision (5), subsection (b) of this section, of the opportunity for testing their water well. The operator shall provide an analysis to such surface landowner or water purveyor at their request.

Water Testing Laboratories:

Pursuant to West Virginia Code § 22-6A-10(i), persons entitled to notice pursuant to subsection (b) of this section may contact the department to ascertain the names and locations of water testing laboratories in the subject area capable and qualified to test water supplies in accordance with standard accepted methods. In compiling that list of names the department shall consult with the state Bureau for Public Health and local health departments. A surface owner and water purveyor has an independent right to sample and analyze any water supply at his or her own expense. The laboratory utilized by the operator shall be approved by the agency as being certified and capable of performing sample analyses in accordance with this section.

Rebuttable Presumption for Contamination or Deprivation of a Fresh Water Source or Supply:

W. Va. Code § 22-6A-18 requires that (b) unless rebutted by one of the defenses established in subsection (c) of this section, in any action for contamination or deprivation of a fresh water source or supply within one thousand five hundred feet of the center of the well pad for horizontal well, there is a rebuttable presumption that the drilling and the oil or gas well or either was the proximate cause of the contamination or deprivation of the fresh water source or supply. (c) In order to rebut the presumption of liability established in subsection (b) of this section, the operator must prove by a preponderance of the evidence one of the following defenses: (1) The pollution existed prior to the drilling or alteration activity as determined by a predrilling or prealteration water well test. (2) The landowner or water purveyor refused to allow the operator access to the property to conduct a predrilling or prealteration water well test. (3) The water supply is not within one thousand five hundred feet of the well. (4) The pollution occurred more than six months after completion of drilling or alteration activities. (5) The pollution occurred as the result of some cause other than the drilling or alteration activity. (d) Any operator electing to preserve its defenses under subdivision (1), subsection (c) of this section shall retain the services of an independent certified laboratory to conduct the predrilling or prealteration water well test. A copy of the results of the test shall be submitted to the department and the surface owner or water purveyor in a manner prescribed by the secretary. (e) Any operator shall replace the water supply of an owner of interest in real property who obtains all or part of that owner's supply of water for domestic, agricultural, industrial or other legitimate use from an underground or surface source with a comparable water supply where the secretary determines that the water supply has been affected by contamination, diminution or interruption proximately caused by the oil or gas operation, unless waived in writing by that owner. (f) The secretary may order the operator conducting the oil or gas operation to: (1) Provide an emergency drinking water supply within twenty-four hours; (2) Provide temporary water supply within seventy-two hours; (3) Within thirty days begin activities to establish a permanent water supply or submit a proposal to the secretary outlining the measures and timetables to be used in establishing a permanent supply. The total time in providing a permanent water supply may not exceed two years. If the operator demonstrates that providing a permanent replacement water supply cannot be completed within two years, the secretary may extend the time frame on case-by-case basis; and (4) Pay all reasonable costs incurred by the real property owner in securing a water supply. (g) A person as described in subsection (b) of this section aggrieved under the provisions of subsections (b), (e) or (f) of this section may seek relief in court... (i) Notwithstanding the denial of the operator of responsibility for the damage to the real property owner's water supply or the status of any appeal on determination of liability for the damage to the real property owner's water supply, the operator may not discontinue providing the required water service until authorized to do so by the secretary or a court of competent jurisdiction.

Written Comment:

Pursuant to West Virginia Code § 22-6A-11(a), all persons described in subsection (b), section ten of this article may file written comments with the secretary as to the location or construction of the applicant's proposed well work within thirty days aftertibe of Oil and Gas application is filed with the secretary. All persons described in West Virginia Code § 22-6A-10(b) may file written comments as to the location or construction of the applicant's proposed well work to the Secretary at:

JAN 2 2 2018

Chief, Office of Oil and Gas
Department of Environmental Protection
601 57th St. SE
Charleston, WV 25304
(304) 926-0450

WV Department of Environmental Protection

Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water. NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.

WW-6A (8-13) API NO. 47-009 0 0 0 0 2 4 8
OPERATOR WELL NO. Nick Ballato BRK 5H
Well Pad Name: Nick Ballato BRK Pad

Time Limits and Methods for Filing Comments.

The law requires these materials to be served on or before the date the operator files its Application. You have THIRTY (30) DAYS after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

Pursuant to West Virginia Code § 22-6A-11(c)(2), Any objections of the affected coal operators and coal seam owners and lessees shall be addressed through the processes and procedures that exist under sections fifteen, seventeen and forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article. The written comments filed by the parties entitled to notice under subdivisions (1), (2), (4), (5) and (6), subsection (b), section ten of this article shall be considered by the secretary in the permit issuance process, but the parties are not entitled to participate in the processes and proceedings that exist under sections fifteen, seventeen or forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article.

Comment Requirements

Your comments must be in writing and include your name, address and telephone number, the well operator's name and well number and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

Disclaimer: All comments received will be placed on our web site http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx and the applicant will automatically be forwarded an email notice that such comments have been submitted. The applicant will be expected to provide a response to comments submitted by any surface owner, water purveyor or natural gas storage operator noticed within the application.

Permit Denial or Condition

The Chief has the power to deny or condition a well work permit. Pursuant to West Virginia Code § 22-6A-8(d), the permit may not be issued or be conditioned, including conditions with respect to the location of the well and access roads prior to issuance if the director determines that:

- (1) The proposed well work will constitute a hazard to the safety of persons;
- (2) The plan for soil erosion and sediment control is not adequate or effective;
- (3) Damage would occur to publicly owned lands or resources; or
- (4) The proposed well work fails to protect fresh water sources or supplies.

A permit may also be denied under West Virginia Code § 22-6A-7(k), the secretary shall deny the issuance of a permit if the secretary determines that the applicant has committed a substantial violation of a previously issued permit for a horizontal well, including the applicable erosion and sediment control plan associated with the previously issued permit, or a substantial violation of one or more of the rules promulgated under this article, and in each instance has failed to abate or seek review of the violation within the time prescribed by the secretary pursuant to the provisions of subdivisions (1) and (2), subsection (a), section five of this article and the rules promulgated hereunder, which time may not be unreasonable.

Pursuant to West Virginia Code § 22-6A-10(g), any person entitled to submit written comments to the secretary pursuant to subsection (a), section eleven of this article, shall also be entitled to receive from the secretary a copy of the permit as issued or a copy of the order modifying or denying the permit if the person requests receipt of them as a part of the written comments submitted concerning the permit application. Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

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JAN 2 2 2018

WW-6A (8-13)

PINO. 47-009 0 0 0 0 0 2 4 8

OPERATOR WELL NO. Nick Ballato BRK 5H Well Pad Name: Nick Ballato BRK Pad

Notice is hereby given by:

Well Operator: SWN Production Co., LLC Telephone: 304-884-1610

Email: Dee_Southall@swn.com

Address: P.O. Box 1300 Jane Lew, WV 26378

Facsimile: 304-884-1690

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.



Subscribed and sworn before me this 5th day of Dlumber 300 Notary Public

My Commission Expires

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JAN 2 2 2018

VER	ADDRESS	CITY	STATE	ZIP
DA MARLENE D & GREG A 🗙 😞	3300 CROSS CREEK RD	WELLSBURG	۸W	26070
CUM HATTIE	94 ST JOHNS RD	COLLIERS	WV	26035

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JAN 2 2 2018



JAN 2 2 2018

WW-6A3 (1/12)

Operator Well No. Nick Ballato BRK

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF ENTRY FOR PLAT SURVEY

Notice Time Requirement: Notice shall be provided at least SEVEN (7) days but no more than FORTY-FIVE (45) days prior to

entry Date of Not	ice: 11/6/2017	Date of Pla	ned Entry: 11/13/2017		
Delivery me	thod pursuan	t to West Virginia C	de § 22-6A-10a		
□ PERSO SERVI		REGISTERED MAIL	☐ METHOD OF DEL RECEIPT OR SIGN		4.7.0 = 13.0 0
on to the sur but no more beneath such owner of min and Sedimer Secretary, we enable the su	face tract to co than forty-five a tract that has nerals underlyi at Control Man hich statement urface owner to	nduct any plat survey days prior to such en filed a declaration pur ng such tract in the co ual and the statutes ar shall include contact obtain copies from th	required pursuant to this are ry to: (1) The surface owner suant to section thirty-six, a anty tax records. The notice of rules related to oil and gas information, including the a	rticle. Such notice of such tract; (2) rticle six, chapter the shall include a state of exploration and p	shall provide notice of planned entry shall be provided at least seven days to any owner or lessee of coal seams wenty-two of this code; and (3) any atement that copies of the state Erosion roduction may be obtained from the age on the Secretary's web site, to
Notice is he	reby provided	to:			
■ SURFA	CE OWNER(5)	COA	L OWNER OR LE	SSEE
Name: Nichol	as Jay Ballato, Christ	topher A. & Ruth V. Ballato	Name: Nic	holas Jay Ballato, Christop	her A. & Ruth V. Ballato
Company 230	Rear Rockdale Rd.		Address:	556 Rear Rockdale Rd.	
Follansbee, WV			Follansbee, W	/V 26037	
Name: Address:			■ MINI	ERAL OWNER(s)	
Manage				holas Jay Ballato, Christop	her A. & Ruth V. Ballato
Name:				556 Rear Rockdale Rd.	
Address.				h additional forms if no	cessary
Pursuant to		Code § 22-6A-10(a), 1 Fland as follows:		ude & Longitude:	d operator is planning entry to conduct 40.310273, -80.585406 St. Johns Road
District:	Cross Creek		Watershed:		Upper Ohio South
Quadrangle:	Steubenville East		Generally use	ed farm name:	Nick Ballato BRK
may be obta Charleston,	ined from the S WV 25304 (30	Secretary, at the WV I 04-926-0450). Copies	epartment of Environmenta	al Protection headq ional information r	il and gas exploration and production uarters, located at 601 57 th Street, SE, elated to horizontal drilling may be
22 (1) 3 (2					RECEIVED
Part of the control o		A STATE OF THE STA	A dd	G. Spin Cause Gara	Office of Oil and Gas
Notice is h		ICTION COMPANY, LLC	Address:	PO BOX 1300	0 0 0010
Well Operat				4.4.4.000 t 000.000.000.000	100 9 9 71118
	304-884-1610) @swn.com or brittany_woody@	swn.com Facsimile:	JANE LEW, WV 26378 304-884-1690	JAN 2 2 2018

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacy officer@wv.gov.

WW-6A4 (1/12) Operator Well No. Nick Ballato BRK 5H

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF INTENT TO DRILL

Pursuant to W. Va. Code § 22-6A-16(b), the Notice of Intent to Drill is only required if the notice requirements of W. Va. Code § 22-6A-10(a) have NOT been met or if the Notice of Intent to Drill requirement has NOT been waived in writing by the surface owner.

Notice Time Date of Noti		Notice shall be provided at lea Date Permit	st TEN (10) days prior to filing a Application Filed:	permit application.	
Delivery me	thod pursuant	to West Virginia Code § 22-6	A-16(b)		
☐ HAND		CERTIFIED MAIL			
DELIV		RETURN RECEIPT REQUE	eran		
DELIV	EKI	RETORN RECEIFT REQUE	STED		
receipt reque drilling a hor of this subsection mand if available	ested or hand del rizontal well: P ection as of the de ay be waived in ole, facsimile nu	ivery, give the surface owner in rovided. That notice given purate the notice was provided to writing by the surface owner. mber and electronic mail address.	notice of its intent to enter upon the suant to subsection (a), section to the surface owner: <i>Provided, how</i> . The notice, if required, shall includes of the operator and the operator.	an operator shall, by certified mail return ne surface owner's land for the purpose of on of this article satisfies the requirements ovever, That the notice requirements of this ude the name, address, telephone number, or's authorized representative.	
	The state of the s	d to the SURFACE OWNI			
	d Christopher Ballato		Name:		
Follansbee, WV	Rear Rockdale Rd.		Address:		
the surface o State:	wner's land for West Virginia		ontal well on the tract of land as for	536,945.664	
County: Brooke District: Cross Creek Quadrangle: Steubenville East Watershed: Upper Ohio North			Northing:	4,462,304.523	
			Public Road Access:	St Johns Run Road Nick Ballato BRK	
			Generally used farm name:	NICK Ballato BRK	
Pursuant to facsimile nur related to ho	mber and electr rizontal drilling	Code § 22-6A-16(b), this notionic mail address of the oper may be obtained from the Sec	ator and the operator's authorized cretary, at the WV Department o	ess, telephone number, and if available, ed representative. Additional information f Environmental Protection headquarters, ep.wv.gov/oil-and-gas/pages/default.aspx.	
Notice is he	reby given by				
	Or: SWN Production		Authorized Representative:	Mike Yates	
Address:	PO Box 1300		Address:	PO Box 1300	
	Jane Lew, WV	26378	-	Jane Lew, WV 26378	
Telephone:	304-517-6603		Telephone:	304-517-6603	
Email:	Michael_Yates	@swn.com	Email:	Michael_Yates@swn.com	
Facsimile:	304-884-1691		Facsimile:	304-884-1691	

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at deprivacyofficer@wv.gov.

WW-6A5 (1/12)

Operator Well No. Nick Ballato BRK 5H

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF PLANNED OPERATION

Notice Time Date of Notice	Requirement: notice shall be provided to e: 12/05/2017 Date Permit A	no later than the filing Application Filed:	date of permit	application.	
Delivery met	hod pursuant to West Virginia Code §	22-6A-16(c)			
■ CERTH	FIED MAIL	HAND			
	RN RECEIPT REQUESTED	DELIVERY		*	
return receipt the planned or required to be drilling of a lanages to the	V. Va. Code § 22-6A-16(c), no later that requested or hand delivery, give the surperation. The notice required by this provided by subsection (b), section tennorizontal well; and (3) A proposed sure surface affected by oil and gas operatives required by this section shall be given	face owner whose land subsection shall inclu of this article to a surf face use and compens ons to the extent the da	I will be used for de: (1) A copy ace owner whose sation agreement amages are comp	or the drilling of a of this code secti the land will be used to containing an of pensable under art	horizontal well notice of on; (2) The information d in conjunction with the ffer of compensation for icle six-b of this chapter.
Notice is here	eby provided to the SURFACE OWNI	ER(s)			
(at the address	s listed in the records of the sheriff at the	time of notice):			
	Christopher Ballato	Name:			
Address: 556 F Follansbee, WV 20		Addres	s:		
	est Virginia Code § 22-6A-16(c), notice the surface owner's land for the purpose				
State:	West Virginia	UTM NAD 8	Easting:	536,945.664	
County:	Brooke	— OTM NAD	Northing:	4,462,304.523	
District:	Cross Creek	Public Road		St Johns Run Road	
Quadrangle:	Steubenville East	Generally use	ed farm name:	Nick Ballato BRK	
Pursuant to W	Shall Include: Vest Virginia Code § 22-6A-16(c), this nd by W. Va. Code § 22-6A-10(b) to a				
horizontal we surface affect information re	II; and (3) A proposed surface use and c ed by oil and gas operations to the exte elated to horizontal drilling may be obt located at 601 57th Street, SE, Cha	compensation agreeme ent the damages are contained from the Secret	nt containing an ompensable und ary, at the WV	offer of compens er article six-b of Department of E	ation for damages to the this chapter. Additional nvironmental Protection
Well Operator	SWN Production Company, LLC	Address:	PO Box 1300, 179 Ir	nnovation Drive	Office of Oil and Ga
Telephone:	304-517-6603		Jane Lew, WV 2637		141 9 9 2018
Email:	Michael Yates@SWN.com	Facsimile:	Charles with the first terms.	-	JAN 2 Z 2010
	Privacy Notice:				WV Department of Environmental Protect

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at deprivacyofficer@wv.gov.



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

1900 Kanawha Boulevard East . Building Five . Room 110 Charleston, West Virginia 25305-0430 • (304) 558-3505

Thomas J. Smith, P. E. Secretary of Transportation/ Commissioner of Highways

December 21, 2017

James A. Martin, Chief Office of Oil and Gas Department of Environmental Protection 601 57th Street, SE Charleston, WV 25304

Subject: DOH Permit for the Nick Ballato Pad, Brooke County Nick Ballato BRK 5H

Dear Mr. Martin.

Jim Justice

Governor

The West Virginia Division of Highways has transferred Permit #06-2011-0112 for the subject site to Southwestern Energy for access to the State Road for the well site located off of Brooke County Route 14 SLS.

The operator has signed an OIL AND GAS ROAD MAINTENANCE BONDING AGREEMENT and provided the required Bond. This operator is currently in compliance with the DOH OIL AND GAS POLICY dated January 3, 2012.

Very Truly Yours,

Day L. Clayton

Gary K. Clayton, P.E.

Regional Maintenance Engineer
Central Office Oil &Gas Coordinator Oil and Gas

JAN 2 2 2018

WV Department of Environmental Protection

Dee Southall Cc:

Southwestern Energy

CH, OM, D-6

File

	FRAC A	DDITIVES 4700	30024
Product Name	Product Use	Chemical Name	CAS Number
		Hydrogen Peroxide	7722-84-1
EC6734A (Champion Technologies)	Biocide	Acetic Acid	64-19-7
		Peroxyacetic Acid	79-21-0
		Methanol	67-56-1
GYPTRON T-390 (Champion Technologies)	Scale Inhibitor	Nonylphenol Ethoxylate	Proprietary
		Glutaraldehyde	111-30-8
		Quaternary Ammonium Compounds, Benzyl-C12-	111 30 0
Bactron K-139 (Champion Technologies)	Biocide	16-Alkyldimethyl, Chlorides	68424-85-1
		Ethanol	64-17-5
Postron K 210 (Character Technologies)	Biocide	Methanol	67-56-1
Bactron K-219 (Champion Technologies)	biocide	Quaternary Ammonium Compounds, Benzyl-C12-	68424-85-1
		16-Alkyldimethyl, Chlorides	08424-85-1
FCC 19C A (1) - 1	Scale Inhibitor	Amine Triphosphate	Proprietary
EC6486A (Nalco Champion)	Scale Illimoitor	Ethylene Glycol	107-21-1
MEDA 2000 ms m list to the	Anionic Friction Reducer	Hydrotreated light distillate (petroleum)	64742-47-8
WFRA-2000 (U.S. Well Services)	Anionic Priction Reducer	Propenoic acid, polymer with propenamide	9003-06 9
		Ethylene glycol	107-21 1
		Cinnamaldehyde	104-55 2
AL 202 (u.e. matternatura)	Mixture	Butyl cellosolve	111-76 2
AI-303 (U.S. Well Services)	Wilkture	Formic acid	64-18 6
		Polyether	Proprietary
		Acetophenone, thiourea, formaldehyde polymer	68527-49 1
AP ONE (U.S. Well Services)	Breaker	Ammonium persulfate	7727-54-0
OPTI-FLEX (U.S. Well Services)	Viscosifying Agent	Distillates, petroleum, hydrotreated light	64742-47-8
		Methanol	67-56-1
		Oxyalkylated fatty acid	68951-67-7
	Corrosion Inhibitor	Fatty acids	61790-12-3
Econo-Cl200 (SWN Well Services)		Modified thiourea polymer	68527-49-1
		Water	7732-18-5
		Hydrochloric acid	7647-01-0
		Potassium acetate Formaldehyde	127-08-2 50-00-0
		Acetic Acid	64-19-7
Ecopol-FEAC (SWN Well Services)	Iron Control	Citric Acid Water	77-92-9 7732-18-5
			7647-01-0
HCL (SWN Well Services)	Hydrocholic Acid	Hydrochloric Acid Water	7732-18-5
FLOJET DRP 1130X (SWN Well Services)	Friction Reducer	Proprietary	Proprietary
TEOSET DIVI 1130X (SWI WEIISCHICES)	Triction Reduces	Distillates (petroleum) hydrotreated light	64674-47-8
FLOJET DR900 LPP (SWN Well Services)		Ethylene Glycol	107-21-1 E
	Friction Reducer	Alcohols, C12-16, Exoxylated propoxylated	68213-24-1
		Fatty Alcohols ethoxylated	Proprietary
		Water	7732-18-5
		Hydrotreated light petroleum distillate	64742-47-8
FR-76 (Halliburton)	Friction Reducer	Inorganic Salt	Proprietary
HAI-150E (Halliburton)	Corrosion Inhibitor	No hazardous substance	N/A
FDD C117C 15 ***	Palatian Dadeese	Polyacylate	Proprietary
FDP-S1176-15 (Halliburton)	Friction Reducer	Hydrotreated light petroleum distillate	64742-47-8
ID CE MC	Scale Inhibitor	Organic phosphonate	Proprietary
LP-65 MC (Halliburton)	Scale IIIIIDILOI	Ammonium Chloride	12125-02-9

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