

#### 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

Harold D. Ward, Cabinet Secretary www.dep.wv.gov

Wednesday, September 8, 2021 WELL WORK PLUGGING PERMIT Horizontal 6A Plugging

CNX GAS COMPANY LLC 1000 CONSOL ENERGY DR CANONSBURG, PA 15370

Re: Permit approval for SHR3GHS

47-095-02198-00-00

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.

Upon completion of the plugging well work, the above named operator will reclaim the site according to the provisions of WV Code 22-6-30. Please be advised that form WR-38, Affidavit of Plugging and Filling Well, 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.

Chief

Operator's Well Number: SHR3GHS

Farm Name: NOBLE ENERGY, INC.

U.S. WELL NUMBER: 47-095-02198-00-00

Horizontal 6A Plugging Date Issued: 9/8/2021

## PERMIT CONDITIONS

West Virginia Code § 22-6-11 allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. <u>Failure to adhere to the specified permit conditions may result in enforcement action.</u>

#### **CONDITIONS**

- 1. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
- 2. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
- 3. Well work activities shall not constitute a hazard to the safety of persons.
- 4. A cement bond log must be run on the production casing to establish the top of cement and all free casing must be cut and pulled.

WW-4B Rev. 2/01

1) Date	B-16	3.6		,	20 21	
2) Ope:	rator	's				
Wel.	No.	SHRL-3G	HS			
3) API	Well	No.	47-095		- 02198	

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

#### APPLICATION FOR A PERMIT TO PLUG AND ABANDON

4)	Well Type: Oil/ Gas x/ Liqui	id injection	_/ Waste disposal/
	(If "Gas, Production x or Un	nderground storag	re/ Deep/ Shallow <u>×</u>
5)	Location: Elevation 751	Watershed Middle	e Island Creek
	District Centerville	County Tyler	Quadrangle Shirley
6)	Well Operator CNX Gas Company LLC  Address 1000 Consol Energy Dr.  Canonsburg, PA 15317	7)Designated A Add	Anthony Kendziora  1000 Consol Energy Dr  Canonsburg PA 15317
8)	Oil and Gas Inspector to be notified Name Derek Haught	9)Plugging Con	tractor
	Address P.O. Box 85		929 Charleston Road
	Smithville WV 26178	_	Spencer, WV 25276
			Office of Oil and Gas
	TO VERIFY CHEMONT  CUT & REMOVE ANY F	TOP.	TION CASING
Noti work	fication must be given to the district of can commence.	oil and gas inspe	ctor 24 hours before permitted
	order approved by inspector Dersk W	2 .2	Date 8/17/21

## SHR 3/40 Procedure

- 1. Check well for pressure including annuli. Rig up on well with a single pipe ram. All wells are DUC's. Wells will be bond logged before the rig gets there.
- 2. Run in tubing and cement from depths in table to 100' below TOC from bond log or 200' below the 9 5/8" shoe, whichever is lower.

Well identifier	Surface	MD
SHR3G	Marcellus	6899.48
SHR3H	Burket	6575.83
SHR3J	Burket	6543.92
SHR40C	Burket	6833.71
SHR40E	Burket	7307.31
SHR40H	Burket	6949.73



- 3. If there is annular pressure, perforate 5 ½" casing from 200' below the shoe to 5' below the shoe every 50' and squeeze with resin. Make sure annular flow has stopped before proceeding.
- 4. Once annular flow has been stopped, free point the casing and shoot off 5 ½" casing at the free point.
- 5. Pull and lay down 5 1/2" casing.
- 6. Once casing has been removed cement well to surface
- 7. Install above ground monument and rig down.

DMH 8/17/21

Office of Oil and Gas

AUG 2 0 2021

WV Department of Environmental Protection

#### CNX GAS, LLC

47-095-

02198 P

### **Well Bore Diagram**

#### SHRL-3G-HS

State: West Virginia County: Tyler Field: Shirley

API#: 47-095-02198-00 Lease #: Permit #:

**Current Completion:** Marcellus TD MD / TVD: 15916 6317

**Cased Hole Depth** 

1628

15889 MD Elevations 751 GL 19.5 KB KOP: 5141 MD 5128 TVD ETOC:

3094

SX

Elev Corr 770.5

8/9/2021 Date Updated

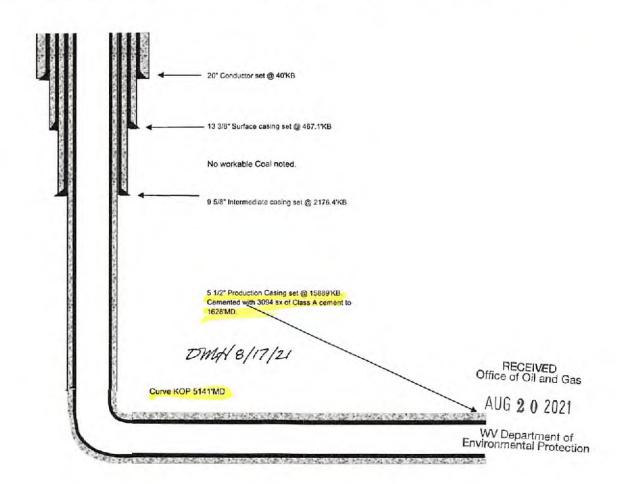
Casing

Conductor	20"	Depth Set:	40
Surface:	13 3/8"	Depth Set:	467.1
Intermed:	9 5/8"	Depth Set:	2176.4
Production	5 1/2"	Depth Set:	15889
Tubing:		Depth Set:	

Grade and Weight: Grade and Weight: Grade and Weight:

Grade and Weight:

J55 54.5# BTC HCK55 36# BTC P110ICY 20# BTC Hole Size: 17.5" Hole Size: 12.25" Hole Size:



WR-35 Rev. 8/23/13

Page \_\_\_ of \_\_\_

09/10/2021

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

API 47 095 02198	County Tyler	District Centerville	•
-Quad Shirley	Pad Name SHR	Field/Pool Name N	
Farm name Noble Energy, Inc.		Well Number SHF	₹ 3 GH\$
Operator (as registered with the OOG) Address 1000 Noble Energy Driver	loble Energy, Inc.		Zip 15317
Landing Point of Curve Nor	Attach an as-drilled plat, profil thing 4362751.64 thing 4362591.24 thing 4360018.39	Easting 514360.98 Easting 514096.52 Easting 515081.89	
Elevation (ft) 751 GL	Type of Well BNew DE	tisting Type of Report	<b>E</b> lnterim □Final
Permit Type Deviated Deviated Horiz	zontal   Horizontal 6A	Vertical Depth Type	□ Deep ■ Shallow
Type of Operation   Convert   Dec	oen # Drill 🗆 Plug Back	□ Redrilling □ Rework	□ Stimulate
Well Type Brine Disposal CBM	I Gas □ Oil □ Secondary Reco	very a Solution Mining a Ste	orage of Other
Type of Completion		□Gas □ NGL □ Oil	Other Rrine
	resh Water 🖸 Brine	Minetiale Hole B Ath D Willo	11 I I I I I I I I I I I I I I I I I I
Mud Type(s) and Additive(s) Synthetic Oil Based	can water to brine		
			,
Date permit issued 8/26/2014	2 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	/24/2014 Date drilling	RECEIVED  ffice of Oil and Gas  ceased 3/20/2015
N1		A Granted by	AUGa 2 0 2021  W Derbettment of Ironmental Protection
Please note: Operator is required to subm	it a plugging application within	days of verbal permission to p	lug
Freshwater depth(s) ft 3	42 Open minet	s) (Y/N) depths	N
Salt water depth(s) ft none noted	for offents	ountered (Y/N) depths	N
Coal depth(s) ft NA	Cavern(s) e	ncountered (Y/N) depths	N
Is coal being mined in area (Y/N)	No		
	-		Reviewed by:

WR-35 Page \_\_\_ of \_\_\_ Rev. 8/23/13 Farm name Noble Energy, Inc. Well number SHR 3 GHS API 47-095 02198 CASING Hole Casing New or Grade Basket Did cement circulate (Y/N) STRINGS Size Size Depth Used with \* Provide details below\* Depth(s) Conductor 24" 20" 40 Surface 17 1/2" 13 3/8" 467.1 New Y J-55 Coal Intermediate I 13 3/8" 9 5/8" 2176.4 New K-55 Intermediate 2 Intermediate 3 Production 8-3/4" 5 1/2" 15.889.0 New P-110 Y Tubing Packer type and depth set Comment Details CEMENT Class/Type Number Slurry Yield Volume Cement WOC DATA of Cement of Sacks wt (ppg) (fi 1) Top (MD) (hrs) Conductor Surface Class A 431 15.6 1.18 508.6 8 Coal Intermediate I Class A 1003.0 B50 15.6 1.18 8 Intermediate 2 Intermediate 3 Production 1628.0 2240 Class A 14.50 1.26 2822.4 Tubing Drillers TD (ft) 15,916 Loggers TD (ft) 15,891 Deepest formation penetrated Marcellus Plug back to (ft) \_\_\_ Plug back procedure \_ Kick off depth (ft) 5141 RECEIVED
Office of Oil and Gas Check all wireline logs run □ deviated/directional n caliper n density □ induction AUG:2 0 2021 o neutron resistivity gamma ray o temperature WV Department of Were cuttings collected Environmental Nerotection Well cored D Yes D No Conventional Sidewall DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING No centrelizers used on conductor. 5 Centralizers used on the Surface String 26 Centralizors on Interspectate String (Sow string contralizors on first two joints than every third joint to 100 from surface) 265 Centralizers on Production String (rigid bow string every joint to KOP, rigid bow spring every third joint from KOP to top of cement). WAS WELL COMPLETED AS SHOT HOLE □ Yes ■ No DETAILS

DYes A No

DETAILS

TYPE OF TRACER(S) USED \_\_\_

WAS WELL COMPLETED OPEN HOLE?

WERE TRACERS USED D Yes No

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Page	of	

API	47- 095 _	02198	Farm name Noble

\_Well number\_SHR 3 GHS

#### PERFORATION RECORD

Energy, Inc.

Perforation date	Perforated from MD ft	Perforated to	Number of	Formation(s)
well not complete	,,,,,	110111	1 CHOMANGE	Well not complete
				No data quellable
				No data available
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	Perforation date well not complete	Perforation date MD ft.	Perforation date MD ft. MD ft.	Perforation date MD ft. MD ft. Perforations

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 (bbis)	Amount of Nitrogen/other (units)
								Well not
							Office R	CEI <b>ve</b> mplete # Oil and Gata no data
								no data
			***************************************		,		AUG	<b>2</b> ()a <b>2/9/1</b> able
<u> </u>							WD	Oprirana - 7
							Environme	partment of Intal Protection
L								

Please insert additional pages as applicable.

WR-35 Page of Rev. 8/23/13 Farm name Noble Energy, Inc. Well number SHR 3 GHS API 47- 095 02198 PRODUCING FORMATION(S) DEPTHS Marcellus 15916 TVD MD Please insert additional pages as applicable. GAS TEST 

Build up 

Drawdown 

Open Flow 

OIL TEST 

Flow 

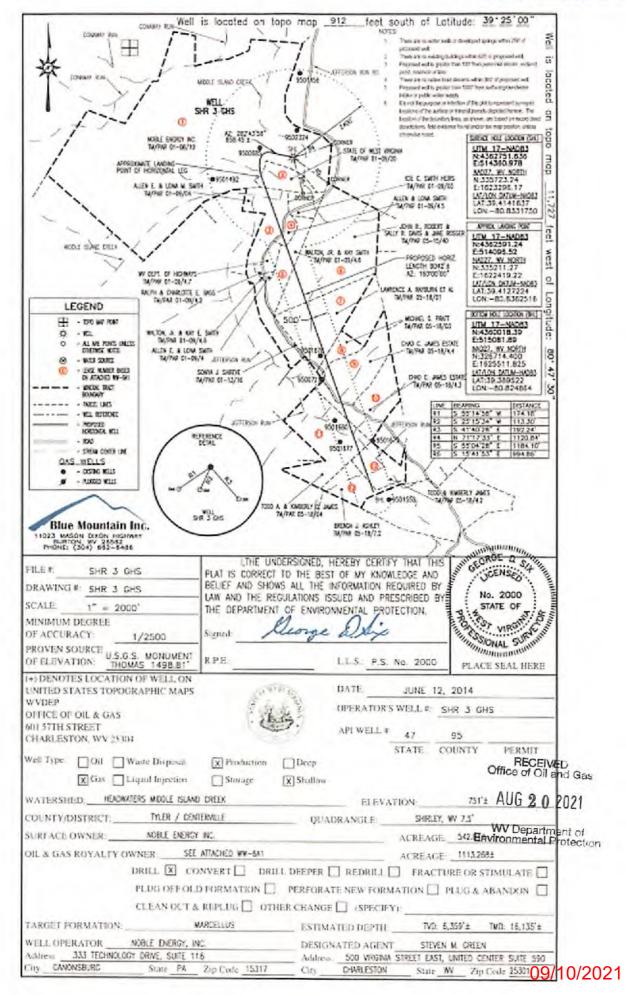
Pump SHUT-IN PRESSURE Surface psi Bottom Hole psi DURATION OF TEST hrs OPEN FLOW Oil NGL. GAS MEASURED BY bpd bpd bpd DEstimated Drifice LITHOLOGY/ TOP BOTTOM TOP BOTTOM DEPTH IN FT DEPTH IN FT DESCRIBE ROCK TYPE AND RECORD QUANTITY AND FORMATION NAME TVD TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H:S, ETC) 0 Please insert additional pages as applicable. Drilling Contractor Precision Drilling Company RECEIVED Office of Oil and Gas Zip 25313 Address 5400 D big Tyler road Charleston WV City AUG 2 0 2021 Logging Company Baker Hughes Address 400 Technology Drive ZipW60egartment of Environmental Protection PA Canonsburg State Cementing Company Schlumberger Address 4600 J. Barry Ct., Suite 200 State PA Canonsburg Zip 15317 Stimulating Company Address City State Zip Please insert additional pages as applicable. Completed by Regina Logue Telephone 724-820-3559 Title Regulatory Analyst Signature Kegina 1)11/17 Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

•			• • • • • • • • • • • • • • • • • • • •
SHR 3 GHS			·.
Formations	Тор	•	Base
Shale		0	766
Pittsburgh Coal		766	775
Shale and Sandstor	1e	<b> 775</b>	1222
<b>Dunkard Sand</b>		.1222	1233
Shale		.1233	1404
Gas Sand		1404	.1443
Shale		1443	1535
1st Salt Sand		.1535	· · 1559
Shale		1559	1568
2nd Salt Sand		1568	· 1613
Shale		1613	1696
Maxton Sand		1696	1708
Shale		1708	1751
Big Lime		1751	1831
Big Injun		1831	· 2025
Price		.2025	2383
Murrysville		2383	2397
Shale		2397	2594
50' Sand		2594	2596
Shale		2596	2649
30' Sand		2649	2658
Shale		2658	2700
Gordon Stray		2700	2715
Shale		2715	2751
Gordon		2751	2764
Shale		2764	2860
Fifth Sand		2860	2894
Shale		2894	3300
Speechley Sand		3300	3328
Shale		3328	4336
Warren Sand		4336	4345
Shale		4345	5003
Java Shale		5003	5174
Pipe Creek Shale		5174	5231
Angola Shale		5231	5856
Rhinestreet		5856	6272
Cashaqua		6272	6363
Middlesex		6363	6396
West River		6396	6440
Burkett		6440	6472
<b>Tully Limestone</b>		6472	6503
Hamilton		6503	6614
Marcellus		6614	6664
Onondaga		6664	6667

RECEIVÉD Office of Oil and Gas

AUG 2 0 2021

WV Department of Environmental Protection



02198

WW-4A Revised 6-07

1)	Date:	8-16-2021	
2)	Operator	's Well Number	
SHRL	-3G-HS		

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF APPLICATION TO PLUG AND ABANDON A WELL

3) API Well No.: 47 -

(a) Name Address	ner(s) to be served:	5) (a) Coal Operato Name	N/A
	1000 Consol Energy Drive	Address	-
	Canonsburg PA 15317		-
(b) Name		(b) Coal O	wner(s) with Declaration
Address	•	Name	N/A
riuuress	-	Address	
	·	riditess	
(c) Name		Name	4
Address	-	Address	,
Address		Address	
	2		The same of the sa
6) Inspector	Derek Haught		essee with Declaration
Address	PO box 85	Name	N/A
	Smithville WV 25178	Address	4
Telephone			
	you are not required to take any action		ication which are summarized in the instructions on the reverses side.
Take notic accompany Protection, the Applic	you are not required to take any action to that under Chapter 22-6 of the Westying documents for a permit to plug a	n at all.  st Virginia Code, the undersigned wel and abandon a well with the Chief of the ion described on the attached Applica d by registered or certified mail or described and the stackets.	Il operator proposes to file or has filed this Notice and Application and the Office of Oil and Gas, West Virginia Department of Environmental tion and depicted on the attached Partic of FNA pies of this Notice, telivered by hand to the person(s) named about the person in AUG 2 0 2021
Take notic accompany Protection, the Applic	you are not required to take any action to the under Chapter 22-6 of the Westying documents for a permit to plug at with respect to the well at the location, and the plat have been mailed cumstances) on or before the day of mailed cumstances.	n at all.  st Virginia Code, the undersigned wel and abandon a well with the Chief of t ion described on the attached Applica d by registered or certified mail or d nailing or delivery to the Chief.	Il operator proposes to file or has filed this Notice and Application and the Office of Oil and Gas, West Virginia Department of Environmental tion and depicted on the attached Partic of FNA pies of this Notice, telivered by hand to the person(s) named about the person in AUG 2 0 2021
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Take notic accompany Protection, the Applic	you are not required to take any action to that under Chapter 22-6 of the Westying documents for a permit to plug at , with respect to the well at the location, and the plat have been mailed cumstances) on or before the day of mailed that the location with the loc	n at all.  st Virginia Code, the undersigned well and abandon a well with the Chief of the food described on the attached Applicated by registered or certified mail or deadling or delivery to the Chief.  1 Operator  CNX Gas Company LLC  Raymond Hoon	Il operator proposes to file or has filed this Notice and Application and the Office of Oil and Gas, West Virginia Department of Environmental tion and depicted on the attached Paris of Francisco of this Notice, telivered by hand to the person(s) named above 100 to application in AUG 2 0 2021
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However, Take notice accompany Protection, the Applice certain circ	you are not required to take any action to that under Chapter 22-6 of the Westying documents for a permit to plug at , with respect to the well at the location, and the plat have been mailed cumstances) on or before the day of mailed that well as the location, and the plat have been mailed cumstances.  Well By: Its: Add Tele	n at all.  st Virginia Code, the undersigned well and abandon a well with the Chief of the ion described on the attached Applicated by registered or certified mail or disalling or delivery to the Chief.  CNX Gas Company LLC  Raymond Hoon  Senior Project Manager  1000 Consol Energy Dr  Canonsburg, PA 15317	Il operator proposes to file or has filed this Notice and Application and the Office of Oil and Gas, West Virginia Department of Environmental tion and depicted on the attached Poster of Electrical Profession in AUG 20 2021  WWD Department of Environmental Protection  WWD Department of Environmental Protection  Commonwealth of Pennsylvania - Not:  Vicki L. Smith, Notary Public  Notary Public Indiana County
However, y Take notic accompany Protection, the Applic certain circ	you are not required to take any action to that under Chapter 22-6 of the Westying documents for a permit to plug at , with respect to the well at the location, and the plat have been mailed cumstances) on or before the day of mailed that well as the location, and the plat have been mailed cumstances.  Well By: Its: Add Tele	n at all.  st Virginia Code, the undersigned well and abandon a well with the Chief of the food described on the attached Applicated by registered or certified mail or denailing or delivery to the Chief.  CNX Gas Company LLC  Raymond Hoon  Senior Project Manager  1000 Consol Energy Dr  Canonsburg, PA 15317  724-485-4000	Il operator proposes to file or has filed this Notice and Application and the Office of Oil and Gas, West Virginia Department of Environmental tion and depicted on the attached Poster of Flushies of this Notice, elivered by hand to the person(s) named above 100 loggishlication in AUG 2 0 2021  Environment of Environmental Protection  Commonwealth of Pennsylvania - Not:  Vickil Smith Notary Public

The Office of Oil and Gas processes your personal information, such as name, address and phone number, as a 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 of your personal information, please contact DEP's Chief Privacy Officer at depprivacyoffier@wv.gov.

09/10/2021



Office of Oil and Gas

AUG 2 0 2021

WV Department of Environmental Protection

47-095-02198P

API Number 47 - 09	05 _ 02198
Operator's Well No.	SHRL-3G-HS

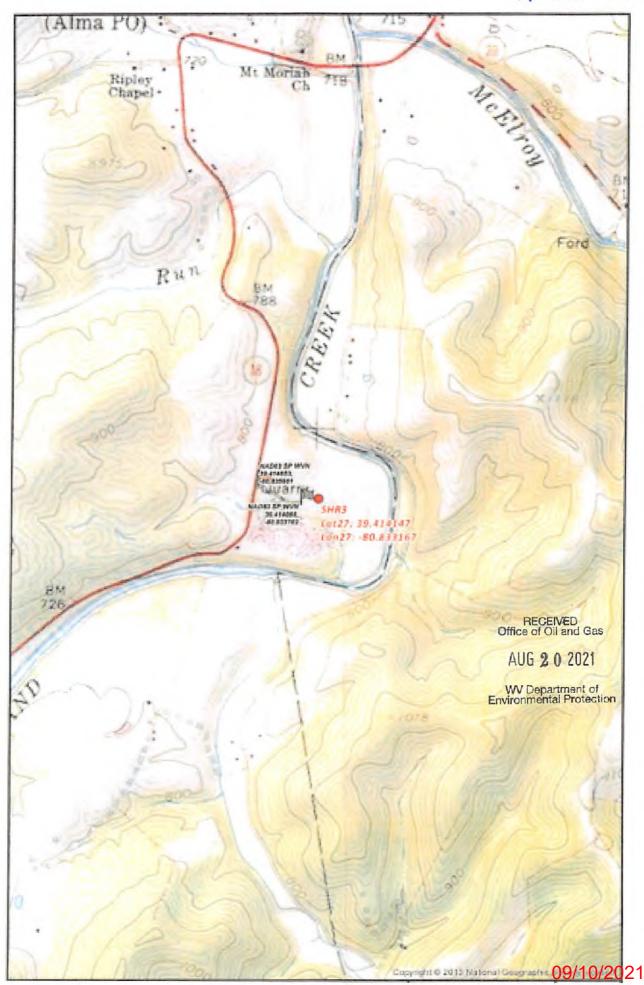
# STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name CNX Gas Company, LLC	OP Code 494458046
Watershed (HUC 10) Middle Island Creek	Quadrangle Shirley
Do you anticipate using more than 5,000 bbls of water to	complete the proposed well work? Yes 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 Wast	tes: DMH 8/17/21
Land Application (if selected p	provide a completed form WW-9-GPP)
Underground Injection (UIC)	Permit Number)
Reuse (at API Number	n WW-9 for disposal location)
Other (Explain Waste Management	t or Ryan Environmental will use Vacuum trucks and properly dispose of any fluid or waste return
Will closed loop systembe used? If so, describe: no	
Drilling medium anticipated for this well (vertical and ho	orizontal)? Air, freshwater, oil based, etc
-If oil based, what type? Synthetic, petroleum, e	etc. na
Additives to be used in drilling medium? na	
Drill cuttings disposal method? Leave in pit, landfill, rem	noved offsite, etc. na
-If left in pit and plan to solidify what medium w	vill be used? (cement, lime, sawdust) na
-Landfill or offsite name/permit number? ha	
Permittee shall provide written notice to the Office of Oil West Virginia solid waste facility. The notice shall be pro- where it was properly disposed.	and Gas of any load of drill cuttings or associated waste rejected at any wided within 24 hours of rejection and the first standard Gas
	AUG 2 0 2021
on April 1, 2016, by the Office of Oil and Gas of the We provisions of the permit are enforceable by law. Violation or regulation can lead to enforcement action.  I certify under penalty of law that I have persapplication form and all attachments thereto and that, base	and conditions of the GENERAL WATER POLLUTION PERMIT issued by Virginia Department of Environmental Protection as of any term or condition of the general permit and/or other applicable law on ally examined and am familiar with the information submitted on the ed on my inquiry of those individuals immediately responsible for obtaining courate, and complete. I am aware that there are significant penalties for imprisonment.
Company Official (Typed Name) Raymond Hoon	
Company Official Title Senior Project Manager	
Subscribed and sworn before me this / 8th day	of Averst 2021
	The Seanaytyania - Notary Seal
Und Some	Indiana County
My commission expires (0/19/22	My commission expires June 19, 2022 Commission number 1155912  Member, Pennsylvania Association of Notaries

Operator's Well No.	SHRL-3G-HS
---------------------	------------

Lime 2-3	Tons/acre or to correct to	Ha	
	20-20 or equivalent		
Fertilizer amount_5		— lbs/acre	
Mulch_ hay or stra		ons/acre	
Mulch	10	ons/acre	
		Seed Mixtures	
To	emporary	Pern	nanent
Seed Type	lbs/acre	Seed Type	lbs/acre
Tall Fescue	40	Tall Fescue	40
Landino Clover	5	Landino Clover	5
Maps(s) of road, location, p provided). If water from the	pit will be land applied, provide	oplication (unless engineered plans inc le water volume, include dimensions (	
Maps(s) of road, location, porovided). If water from the (L, W), and area in acres, of Photocopied section of invo	pit will be land applied, provide the land application area.  Ived 7.5' topographic sheet.	le water volume, include dimensions (	L, W, D) of the pit, and dime
Plan Approved by:	pit will be land applied, provide the land application area.  Ived 7.5' topographic sheet.		L, W, D) of the pit, and dime
Maps(s) of road, location, porovided). If water from the L. W), and area in acres, of Photocopied section of invo	pit will be land applied, provide the land application area.  Ived 7.5' topographic sheet.	le water volume, include dimensions (	L, W, D) of the pit, and dime
Maps(s) of road, location, porovided). If water from the (L, W), and area in acres, of Photocopied section of invo	pit will be land applied, provide the land application area.  Ived 7.5' topographic sheet.	le water volume, include dimensions (	L, W, D) of the pit, and dime
Maps(s) of road, location, porovided). If water from the (L, W), and area in acres, of Photocopied section of invo	pit will be land applied, provide the land application area.  Ived 7.5' topographic sheet.	le water volume, include dimensions (	Confice of Oil and Gas  AUG 2 0 2021
Maps(s) of road, location, porovided). If water from the L. W), and area in acres, of Photocopied section of invo	pit will be land applied, provide the land application area.  Ived 7.5' topographic sheet.	le water volume, include dimensions (	L, W, D) of the pit, and dime
Maps(s) of road, location, porovided). If water from the L, W), and area in acres, of Photocopied section of invo	pit will be land applied, provide the land application area.  Ived 7.5' topographic sheet.	le water volume, include dimensions (	Confice of Oil and Gas  AUG 2 0 2021
Maps(s) of road, location, porovided). If water from the L. W), and area in acres, of Photocopied section of invo	pit will be land applied, provide the land application area.  Ived 7.5' topographic sheet.	le water volume, include dimensions (	Confice of Oil and Gas  AUG 2 0 2021
Maps(s) of road, location, porovided). If water from the (L, W), and area in acres, of Photocopied section of invo	pit will be land applied, provide the land application area.  Ived 7.5' topographic sheet.	le water volume, include dimensions (	Confice of Oil and Gas  AUG 2 0 2021
Maps(s) of road, location, porovided). If water from the (L, W), and area in acres, of Photocopied section of invo	pit will be land applied, provide the land application area.  lved 7.5' topographic sheet.  rek M. Haught	le water volume, include dimensions (	Confice of Oil and Gas  AUG 2 0 2021





### West Virginia Department of Environmental Protection Office of Oil and Gas

### WELL LOCATION FORM: GPS

API: 4709502198	WELL NO.: SHRL-3G-HS
FARM NAME: CNX Gas Company	
RESPONSIBLE PARTY NAME: CNX G	as Company
COUNTY: Tyler	Centerville
QUADRANGLE: Shirley	
SURFACE OWNER: CNX Gas Comp	oany
ROYALTY OWNER: CNX Gas Com	pany
UTM GPS NORTHING: 4362751.636	
UTM GPS EASTING: 514360.978	
The Responsible Party named above has chosen preparing a new well location plat for a pluggin above well. The Office of Oil and Gas will not a	g permit or assigned API number on the
preparing a new well location plat for a pluggin above well. The Office of Oil and Gas will not a the following requirements:  1. Datum: NAD 1983, Zone: 17 North, height above mean sea level (MSL)  2. Accuracy to Datum – 3.05 meters  3. Data Collection Method:	g permit or assigned API number on the accept GPS coordinates that do not meet  Coordinate Units: meters, Altitude:  meters.  RECEIVED Office of Oil and Git AUG 2 0 2021
preparing a new well location plat for a pluggin above well. The Office of Oil and Gas will not a the following requirements:  1. Datum: NAD 1983, Zone: 17 North, height above mean sea level (MSL)  2. Accuracy to Datum – 3.05 meters  3. Data Collection Method: Survey grade GPSX: Post Processed Diff	g permit or assigned API number on the accept GPS coordinates that do not meet  Coordinate Units: meters, Altitude:  meters.  Office of Oil and Gi  AUG 2 0 2021  Environmental Description
preparing a new well location plat for a pluggin above well. The Office of Oil and Gas will not a the following requirements:  1. Datum: NAD 1983, Zone: 17 North, height above mean sea level (MSL)  2. Accuracy to Datum – 3.05 meters  3. Data Collection Method:	g permit or assigned API number on the accept GPS coordinates that do not meet  Coordinate Units: meters, Altitude:  — meters.  AUG 2 0 2021  Environmental Protects  Secritary August 2 2021
preparing a new well location plat for a pluggin above well. The Office of Oil and Gas will not a the following requirements:  1. Datum: NAD 1983, Zone: 17 North, height above mean sea level (MSL)  2. Accuracy to Datum – 3.05 meters  3. Data Collection Method: Survey grade GPSX: Post Processed Difference	g permit or assigned API number on the accept GPS coordinates that do not meet  Coordinate Units: meters, Altitude:  — meters.  AUG 2 0 2021  fferential  ential X  Differential  Differential
preparing a new well location plat for a pluggin above well. The Office of Oil and Gas will not at the following requirements:  1. Datum: NAD 1983, Zone: 17 North, height above mean sea level (MSL)  2. Accuracy to Datum – 3.05 meters  3. Data Collection Method: Survey grade GPS: Post Processed Different Mapping Grade GPS: Post Processed	g permit or assigned API number on the accept GPS coordinates that do not meet  Coordinate Units: meters, Altitude: — meters.  AUG 2 0 2021  Ferential  Ential X  Differential  Terential  Terential  map showing the well location.  rect to the best of my knowledge and

noble energy		OBLE ENERGY RAKE	4
	Location: Tyler County Field: Tyler Facility: SHR-3 Pad	Wel: SHR-3G-H5 & 5	SHES
Field Subvision analysis is 16th 2014 ft February	Vigen M. Antonio (anni-1914) M. Ing	the last that the control of the con	
		MS Gyro <12-1/4"> (100-2094"): 118.500 TVD, 0 WG, 0 170V  BH MWD -8-34"> (7112-317225"-8031"): 2224-318 TVD, 12-346, 10-366V  BH AT Durve -8-34"> (5001"(5141-15881"): 5128-488 TVD, 1003-928-747 OS881V)  BH AT Durve -8-34"> (5001"(5141-15881"): 5128-488 TVD, 1003-928-747 OS881V)  BH AT Durve -8-34"> (5001"(5141-15881"): 5128-488 TVD, 1003-928-747 OS881V)  BH AT Durve -8-34"> (5001"(5141-15881"): 5128-488 TVD, 1003-928-747 OS881V)  BH AT Durve -8-34" (5001"(5141-15881"): 5128-488 TVD, 1003-928-747 OS881V)  BH AT Durve -8-34" (5001"(5141-15881"): 5128-488 TVD, 1003-928-747 OS881V)  BH AT Durve -8-34" (5001"(5141-15881"): 5128-488 TVD, 1003-928-747 OS881V)  BH AT Durve -8-34" (5001"(5141-15881"): 5128-488 TVD, 1003-928-747 OS881V)  BH AT Durve -8-34" (5001"(5141-15881"): 5128-488 TVD, 1003-928-747 OS881V)  BH AT Durve -8-34" (5001"(5141-15881"): 5128-488 TVD, 1003-928-747 OS881V)  BH AT Durve -8-34" (5001"(5141-15881"): 5128-488 TVD, 1003-928-747 OS881V)  BH AT DURVE -8-34" (5001"(5141-15881"): 5128-488 TVD, 1003-928-74 OS881V)  BH AT DURVE -8-34" (5001"(5141-15881"): 5128-488 TVD, 1003-928-74 OS881V)  BH AT DURVE -8-34" (5001"(5141-15881"): 5128-488 TVD, 1003-928-74 OS881V)  BH AT DURVE -8-34" (5001"(5141-15881"): 5128-488 TVD, 1003-928-74 OS881V)  BH AT DURVE -8-34" (5001"(5141-15881"): 5128-488 TVD, 1003-928-74 OS881V)  BH AT DURVE -8-34" (5001"(5141-15881"): 5128-488 TVD, 1003-928-74 OS881V)  BH AT DURVE -8-34" (5001"(5141-15881"): 5128-488 TVD, 1003-928-74 OS881V)  BH AT DURVE -8-34" (5001"(5141-15881"): 5128-488 TVD, 1003-928-74 OS881V)  BH AT DURVE -8-34" (5001"(5141-15881"): 5128-488 TVD, 1003-928-74 OS881V)  BH AT DURVE -8-34" (5001"(5141-15881"): 5128-488 TVD, 1003-928 TVD, 1	- 0
Self   3 Pet	28°24'50 500'N 82°35'00 500'N 1 50°55'00 50°50'N 1 50°55'00 500'N 1 50°55'00 500'N 1 50°55'00 500'N 1 50°55'00 50'N 1 50°50'N 1 50°50	- <del>-</del>	-750
1 750	1000		-1500
MS Gyra <12-1/4"> (100-2094") 0.34" inc, 118	501 MD, 118 508 TVD, 0.178 VS		2250
750 —		API: 47-095-02198-0000 BHI Job #: 7024800	3000
1500 -		Rig: Precision 542 Duration: 3/6/2015-3/17/2015	- 3750
2250 - BHI MWD <8-54"> (2112.5")(2225-5051"): 0.70	0° Inc., 2225 008 MD, 2224 918 TVD, 8:26	en vs	- 4500 mg (R)
Vertical Depth			
S 3750 - W + H   W + H			-6000
4500 — Magnetic North is 15th degrees West of Thus North  Ged North is 0.85 degrees West of True 1 Forth  Ground agreement from True 1  To correct agreement from Magnetic to Cind add 35th  To correct agreement from Magnetic to Cind suchtact	us de Maria (2016) North 5 de green		6750
5250 - BHI AT Curve <8-3/4"> (5051")(5141"-15891"): 0.63	2" (no. 5141.00t; MD, 5128.48t; TVD, -148	8.25h VS	-7500
6000-			
6760 -		Projected MD at TD: 159161: 93.12" Inc. 15916.000 MD, 6329 848 TVD, 9223.858 VS  Projected MD at TD: 165161: 6329.648 TVD, 9011.918.5, 2208.728 E	-9000
0 750 1900 2250	3000 3750 4500 Vertical Section Azimuth 160,00° with reference		1.9750



# Actual Wellpath Report SHR-3G-HS AWP Proj: 15916' Page 1 of 9

Slot G





5	REFERE	NCE WELLFATH IDENTIFICATION	
Ĭ	Operator	NOBLE ENERGY	Slot

Tyler County, WV Well SHR-3G-HS Area Field Wellbore Tyler SHR-3G-HS AWB

Facility SHR-3 Pad

REPORT SETUP INFORMATION								
Projection System	NAD27 / Lambert West Virginia SP, Northern Zone (4701), US feet	Software System	WellArchitect® 4.0.1					
North Reference	Grid	User	Edsaryar					
Scale	0.999948	Report Generated	18/Mar/2015 at 17:11					
Convergence at slot	0.85° West	Database/Source file	WellArchitectEasternDB/SHR-3G-HS AWR ym					

	Local coo	Local coordinates		ordinates	Geographic coordinates		
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude	
Slot Location	-20.19	-1.86	1623296.17	335723.25	39°24'50.700"N	80°50'00.050"W	
Facility Reference Pt			1623298.03	335743.44	39°24′50.900″N	80°50′00.030"W	
Field Reference Pt			609601.22	0.00	38°23'48.753"N	84°21'09.765"W	

WELLPATH DATUM			
Calculation method	Minimum curvature	Precision 542 (RKB) to Facility Vertical Datum	770.73ft
Horizontal Reference Pt	Slot	Precision 542 (RKB) to Mean Sea Level	770.73ft
Vertical Reference Pt	Precision 542 (RKB)	Precision 542 (RKB) to Mud Line at Slot (Slot G)	18.50ft
MD Reference Pt	Precision 542 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	160.00°



# Actual Wellpath Report SHR-3G-HS AWP Proj: 15916'

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WY Department of Environmental Protection AUG 2 0 2021



REFERENCE WELLPATH IDENTIFICATION

NOBLE ENERGY

Slot Slot G Well

Tyler County, WV Area

SHR-3G-HS

Field Tyler Wellbore SHR-3G-HS AWB

SHR-3 Pad Facility

MD	Inclination [°]	Azimuth [°]	[D]	Vert Sect	North [ft]	[ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist	Closure Dir	DLS [9/1000]	Build Rate [º/100ft]	Turn Rate [º/100ft]
0.001	0.000	214,950	0.00	0.00	0.00	0.00	1623296,17	335723.25	39°24'50.700"N	80°50'00.050*W	0.00	0.000	0.00	0.00	0.00
18.50	0.000	214.950	18.50	0.00	0.00	0.00	1623296.17	335723.25	39°24'50.700"N	80°50'00.050°W	0.00	0.000	0.00	0.00	0.0
118.50	0.340	214,950	118,50	0.17	-0.24	-0.17	1623296.00	335723.01	39°24'50.698"N	80°50'00.052*W	0.30	214.950	0.34	0.34	0.00
218.50	0.600	191.160	218.50	0.79	-1,00	-0.44	1623295.73	335722.25	39°24'50.690"N	80°50'00.055*W	1.09	203.809	0.32	0.26	-23.7
318.50	0.670	232.830	318.49	1.41	-1.87	-1.01	1623295.16	335721.38	39°24'50.682"N	80°50'00.063"W	2.12	208.377	0.46	0.07	41.6
418.50	0.260	235.160	418.49	1.64	-2.35	-1.66	1623294.51	335720.90	39*24'50.677"N	80°50'00.071"W	2.88	215.248	0.41	-0.41	2.33
518.50	0.500	181.760	518.48	2.10	-2.92	-1.86	1623294.31	335720.33	39°24'50.671"N	80°50'00.073"W	3.46	212.539	0.40	0.24	-53.40
618.50	0.610	178.490	618.48	3.01	-3.88	-1.86	1623294.31	335719.37	39°24'50.661"N	80°50'00.073"W	4.31	205,585	0.11	0.11	-3.2
718.50	0.700	178.720	718.47	4.10	-5.03	-1.83	1623294.34	335718.22	39*24'50.650"N	80°50'00.072"W	5.35	200.024	0.09	0.09	0.23
818.50	0.690	186.240	818.47	5.22	-6.24	-1.88	1623294.29	335717.01	39°24'50.638"N	80°50'00.073"W	6,51	196,809	0.09	-0.01	7.53
918.50	0.530	220.850	918.46	5.98	-7.18	-2.25	1623293.92	335716.07	39°24'50.629"N	80°50'00.077"W	7,53	197.402	0.39	-0.16	34.6
1018.50	0.330	256,820	1018.46	6.17	-7.60	-2.83	1623293.34	335715.65	39°24'50.625"N	80°50'00.085"W	8.11	200.455	0.33	-0.20	35.9
1118.50	0.270	241.350	1118,46	6.17	-7,78	-3.32	1623292.85	335715.47	39°24'50.623"N	80°50'00.091"W	8.46	203.125	0.10	-0.06	-15.43
1218.50	0.370	243,750	1218.46	6.24	-8.03	-3.82	1623292.35	335715.22	39°24'50.620°N	80°50'00.097"W	8.90	205.419	0.10	0.10	2.40
1318.50	0.500	225.360	1318.45	6.46	-8.48	-4.42	1623291.75	335714.77	39°24'50.616"N	80°50'00,105"W	9.57	207.510	0.19	0.13	-18.39
1418.50	0.250	203.600	1418.45	6.80	-8.99	-4.82	1623291.35	335714.26	39°24'50.611"N	80°50'00.110"W	10.20	208.178	0.28	-0.25	-21.70
1518.50	0.410	224,390	1518.45	7.11	-9.45	-5.15	1623291.02	335713.80	39°24'50.606"N	80°50'00,114"W	10,76	208.617	0.20	0.16	20.79
1618.50	0.590	233.660	1618.44	7.41	-10.01	-5.82	1623290.35	335713.24	39°24'50.600'N	80°50'00.122"W	11.58	210.177	0.20	0.18	9.27
1718.50	0.510	227.430	1718.44	7.73	-10.61	-6.56	1623289.61	335712.64	39°24'50.594"N	80°50'00.132"W	12.48	211.726	0.10	-0.08	-6.23
1818.50	0.590	228.530	1818,44	8.09	-11.25	-7.27	1623288.90	335712.00	39°24'50.588"N	80°50'00.141"W	13.40	212,877	0.08	0.08	1.10
1918.50	0.610	243.560	1918.43	8.34	-11.83	-8.14	1623288.03	335711.42	39°24'50.582"N	80°50'00.151"W	14.36	214.515	0.16	0.02	15.03
2018.50	0.700	243.470	2018.42	8.47	-12.34	-9.16	1623287.01	335710.91	39°24'50.577"N	80°50'00.164"W	15.37	216.582	0.09	0.09	-0.09
2112.50	0.350	276.940	2112.42	8.40	-12.56	-9.96	1623286.21	335710.69	39°24'50.574"N	80°50'00.175"W	16.03	218.402	0.48	-0.37	35.61
2225.00	0.700	248.810	2224.91	8.26	-12,77	-10,94	1623285,23	335710.48	39°24'50.572"N	80°50'00.187"W	16.82	220.586	0.38	0.31	25.00
2274.00	0.890	275.020	2273.91	8.10	-12.85	-11.60	1623284.57	335710.40	39°24'50.571"N	80°50'00.195"W	17.31	222.079	0.83	0.39	53.49
2363.00	2.870	286.450	2362.86	6.49	-12.15	-14.42	1623281.75	335711.10	39°24'50.578"N	80°50'00.231"W	18.86	229,882	2.25	2.22	12.84
2453.00	4.180	287.690	2452.69	3.14	-10.52	-19.71	1623276.46	335712.73	39°24'50.593"N	80°50'00.299"W	22.34	241.911	1.46	1.46	1.38
2542.00	5.540	292.010	2541.36	-1.71	-7.92	-26.78	1623269.39	335715.33	39°24'50.618"N	80°50'00.390"W	27.93	253.519	1.58	1.53	4.85
2632.00	7.080	296.220	2630.82	-8.63	-3.85	-35.79	1623260.38	335719.41	39°24'50.657"N	80°50'00.505°W	35.99	263.868	1.79	1.71	4.68
2722.00	7.600	297.530	2720.08	-17.02	1.36	-46.04	1623250.13	335724.61	39°24'50.707"N	80°50'00.637"W	46.06	271.687	0.61	0.58	1.46



### **Actual Wellpath Report**

SHR-3G-HS AWP Proj: 15916'
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RECEIVED fine of Oil and Gas
AUG 2 0 2021
WV Department of properties of properties of the properties



#### REFERENCE WELLPATH IDENTIFICATION

 Operator
 NOBLE ENERGY
 Slot
 Slot G

 Area
 Tyler County, WV
 Well
 SHR-3G-HS

 Field
 Tyler
 Wellbore
 SHR-3G-HS AWB

Facility SHR-3 Pad

WELLPATH DATA (178 stations)

MD [0]	Inclination [*]	Azimuth [2]	TVD	Vert Sect	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist	Closure Dir	DLS [9/1000]	Build Rate	Turn Rate [%/100ft]
2811,00	8,440	307.430	2808.21	-26.87	8.05	-56.45	1623239.72	335731.30	39°24'50.771"N	80°50'00.771"W	57,02	278.113	1.81	0.94	11.12
2901.00	11.160	318.980	2896.90	40.57	18.64	-67.41	1623228.76	335741.88	39°24'50.874"N	80°50'00.912°W	69.94	285.453	3.71	3.02	12.83
2991.00	9.200	319,480	2985.48	-55.44	30.68	-77.80	1623218.37	335753.93	39°24'50.992"N	80°50'01.047"W	83.63	291.519	2.18	-2.18	0.56
3080.00	8.610	312,400	3073.41	-68.01	40.58	-87.35	1623208.83	335763.83	39°24'51.088"N	80°50'01.170°W	96.31	294,918	1.40	-0.66	-7.96
3170.00	11.630	311.930	3162.00	-81.98	51.19	-99.07	1623197.10	335774.43	39°24'51.191"N	80°50'01.322"W	111.51	297.323	3.36	3.36	-0.52
3260.00	12,050	308,720	3250.08	-98.02	63.12	-113.15	1623183.02	335786.37	39°24'51.307"N	80°50'01.503"W	129.57	299.156	0.87	0.47	-3.57
3349.00	8,120	316.640	3337.69	-111.73	73.51	-124.72	1623171.46	335796.76	39*24*51.408*N	80°50'01.653"W	144.77	300.515	4.67	-4.42	8,90
3439.00	5.190	336.350	3427.09	-121.63	81.86	-130.72	1623165.46	335805.11	39°24'51.490"N	80°50'01.731"W	154.24	302.056	4.08	-3.26	21.90
3529.00	3,460	341,090	3516.83	-128.41	88.16	-133.23	1623162.94	335811.41	39°24'51.552"N	80°50'01.764"W	159.76	303.493	1.96	-1.92	5.27
3618.00	2.880	337.560	3605.69	-133.33	92,77	-134.96	1623161.22	335816.01	39°24'51.597*N	80°50'01.787"W	163,77	304.504	0.69	-0.65	-3.97
3708.00	1.700	330,430	3695.62	-136.91	96.02	-136.48	1623159.70	335819.26	39°24'51.629"N	80°50'01.807"W	166.87	305.128	1.35	-1.31	-7.92
3798.00	1.770	337,630	3785.58	-139.61	98.47	-137.67	1623158.51	335821.71	39°24'51.653"N	80°50'01.822"W	169.26	305,574	0.25	0.08	8.00
3887.00	1.190	355,490	3874.55	-141.88	100.66	-138.26	1623157.91	335823.90	39°24'51.675"N	80°50'01.830"W	171.02	306.055	0.83	-0.65	20.07
3976.00	0.690	334,980	3963.54	-143.30	102.06	-138.56	1623157.62	335825.31	39°24'51.688"N	80°50'01.835"W	172.09	306,375	0.67	-0.56	-23.04
4066.00	0.680	339,340	4053.53	-144.37	103.06	-138.98	1623157.20	335826.30	39°24'51.698"N	80°50'01.840"W	173.02	306.557	0.06	-0.01	4.84
4155.00	1.230	294.350	4142.52	-145.57	103.94	-140.04	1623156.14	335827.19	39°24'\$1.707"N	80°50'01.854"W	174,40	306.585	1.00	0.62	-50.55
4245.00	0.800	290.130	4232.51	-146.65	104.56	-141.51	1623154.67	335827.80	39°24'51.713"N	80°50'01.873"W	175.94	306,460	0.48	-0.48	-4.69
4335.00	0.440	286.380	4322.50	-147.26	104.87	-142.43	1623153.75	335828.12	39°24'51.716"N	80°50'01.884"W	176.87	306.365	0.40	-0.40	-4.17
4424.00	0.610	254.500	4411.50	-147.50	104.84	-143.21	1623152.97	335828.09	39°24'51.715"N	80°50'01.894"W	177.49	306,207	0.37	0.19	-35.82
4514.00	0.540	240.650	4501.49	-147.47	104.51	-144.04	1623152.13	335827.75	39°24'51.712"N	80"50'01.905"W	177.96	305.961	0.17	-0.08	-15.39
4603.00	0.220	267,440	4590.49	-147.45	104.29	-144.58	1623151.60	335827.54	39°24'51.710"N	80°50'01.912"W	178.27	305.805	0.40	-0.36	30.10
4693.00	0.250	254.850	4680.49	-147.52	104.23	-144.94	1623151,24	335827.48	39°24'51.709"N	80°50'01.916"W	178.53	305.721	0.07	0.03	-13.99
4783.00	0.440	252,700	4770.49	-147.55	104.08	-145.46	1623150.72	335827.32	39°24'51.707"N	80°50'01.923"W	178.86	305.584	0.21	0.21	-2.39
4872.00	0.340	266.370	4859,49	-147.64	103.96	-146.05	1623150.13	335827.21	39°24'51.706"N	80°50'01.930"W	179.27	305,444	0.15	-0.11	15.36
4962.00	0.470	279.870	4949.48	-147.90	104.01	-146.68	1623149.50	335827.25	39°24'51.706"N	80°50'01.938"W	179.81	305.339	0.18	0.14	15.00
5051.00	0.250	249.290	5038.48	-148.08	104.00	-147.22	1623148.96	335827.25	39°24'51.706"N	80°50'01.945"W	180.25	305,238	0.32	-0.25	-34.36
5141.00	0.620	270.190	5128,48	-148.25	103.93	-147.89	1623148.29	335827.18	39°24'51.706"N	80°50'01.954"W	180.76	305.098	0.44	0.41	23.22
5231.00	6.170	269,210		-150.01	103.87	-153.22	1623142.96	335827.11	39°24'51.704"N	80°50'02.022"W	185.11	304.133	6.17	6.17	-1.09
5321.00	10.240	265.730	5307.35	-153.77	103.21	-166.04	1623130.14	335826.45	39°24'51.696"N	80°50'02,185"W	195.50	301.864	4.55	4.52	-3.87
5410.00	14,480	256.710	- Control of the Cont	-157.22	100.06	-184.77	1623111.41	335823.30	39°24'51.662"N	80°50'02,423"W	210.12	298.437	5.22	4,76	-10.13



# Actual Wellpath Report SHR-3G-HS AWP Proj: 15916'

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#### REFERENCE WELLPATH IDENTIFICATION

NOBLE ENERGY Slot Slot G Operator Area

Well SHR-3G-HS Tyler County, WV

SHR-3G-HS AWB Wellbore Field Tyler

SHR-3 Pad Facility

WELLPATH	DATA (	(178 stations)
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MD	Inclination [*]	Azimuth [°]	TVD	Vert Sect	North [R]	East [R]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist	Closure Dir	DLS [9/100ft]	Build Rate [*/100fr]	Turn Rate
5499.00	20.010	255.900	5479.24	~160.08	93.78	-210.38	1623085.80	335817.03	39°24'51.596"N	80°50'02,748"W	230.34	294.026	6.22	6.21	-().91
5589.00	26,280	261.780	5561.96	-165.74	87.18	-245.08	1623051.11	335810.42	39*24'51.526"N	80°50'03.189"W	260.12	289.581	7.42	6.97	6.53
5679.00	31.980	261.960	5640.55	-174.76	80.99	-288.43	1623007.75	335804.24	39°24'51.458"N	80°50'03.740°W	299.59	285.684	6.33	6.33	0.20
5768.00	37.700	262.030	5713.56	-185.32	73.91	-338.76	1622957.43	335797.16	39*24'51.381"N	80°50'04.380"W	346.73	282.309	6.43	6.43	0.08
5858.00	43.010	262.010	5782.12	-197.45	65.83	-396.45	1622899.74	335789.07	39°24'51.292"N	80°50'05,113°W	401.88	279,427	5.90	5,90	-0.02
5948.00	47,690	261.890	5845.36	-210.70	56.86	-459.83	1622836.36	335780.11	39°24'51.195"N	80°50'05.919"W	463.33	277.049	5.20	5.20	-0.13
6037.00	51.380	258.020	5903.12	-222.34	44.99	-526.46	1622769.74	335768.24	39°24'51.067'N	80°50'06.765°W	528.38	274.885	5.30	4.15	4.35
6127.00	51.480	245,320	5959.37	-224.38	22.94	-593.01	1622703.19	335746.19	39°24'50.840"N	80°50'07.609*W	593.45	272.215	11.02	0.11	-14.11
6217.00	52.790	232.000	6014.77	-210.39	-13.93	-653.41	1622642.79	335709.32	39°24'50.467*N	80°50'08.372"W	653.56	268.779	11.76	1.46	-14.80
6307.00	61.590	223,290	6063.55	-181.43	-64.97	-708.98	1622587.23	335658.28	39°24'49,954"N	80°50'09,070*W	711.95	264,764	12.71	9.78	-9.68
6396.00	60.010	221.030	6106.98	-145.16	-122.55	-761.13	1622535.08	335600.71	39°24'49,377'N	80°50'09.723"W	770.93	260.853	2.84	-1.78	-2.54
6486.00	59,920	212,300	6152.09	-102.41	-184.96	-807.59	1622488.63	335538.30	39°24'48.754"N	80°50'10.303"W	828.50	257,100	8.40	-0.10	-9.70
6575.00	60.880	200.850	6196.16	-49.32	-254.01	-842.09	1622454.13	335469.25	39°24'48.066"N	80°50'10.730"W	879.56	253,215	11.23	1.08	-12.87
6665.00	65.170	192,270	6237.03	15.07	-330.80	-864.80	1622431.41	335392.46	39°24'47.304"N	80°50'11.005"W	925.91	249.067	9.74	4.77	-9.53
6755.00	69.930	186.040	6271.42	87.68	-412.86	-877.95	1622418.27	335310.41	39°24'46.491"N	80°50'11.157"W	970.18	244.815	8.30	5.29	-6.92
6844.00	75,000	176,500	6298.29	166,67	497.56	-879.73	1622416.49	335225.72	39°24'45.654"N	80°50'11.163"W	1010.69	240,508	11.70	5.70	-10.72
6934.00	80,220	169.930	6317.61	252.18	-584.76	-869.30	1622426.91	335138.52	39°24'44.794"N	80°50'11.014"W	1047.68	236.072	9.19	5.80	-7.30
7023.00	85,970	162,000	6328.32	339.95	-670.36	-847.87	1622448.35	335052.92	39°24'43.951"N	80°50'10.725"W	1080.86	231.668	10.95	6.46	-8.91
7113.00	89.140	159,750	6332.16	429,84	-755.30	-818.41	1622477.80	334967.99	39°24'43.116"N	80°50'10.333"W	1113.68	227,296	4.32	3.52	-2.50
7202.00	89.020	158,750	6333.59	518.82	-838.52	-786.88	1622509.33	334884.78	39°24'42.298"N	80°50'09.916"W	1149.91	223,180	1.13	-0.13	-1.12
7292.00	89.110	158,350	6335,06	608.78	-922.27	-753.97	1622542.24	334801.03	39°24'41.475"N	80°50'09.481"W	1191.24	219.267	0.46	0.10	-0.44
7381.00	89.170	155.720	6336.39	697.64	-1004.20	-719.26	1622576.95	334719.10	39°24'40.671"N	80°50'09.023"W	1235.21	215,612	2.96	0.07	-2.96
7471.00	89.020	156,620	6337.82	787.43	-1086.52	-682.90	1622613.31	334636.79	39°24'39.862"N	80°50'08.544"W	1283.31	212.150	1.01	-0.17	1.00
7561.00	88.980	158,030	6339.39	877.31	-1169.55	-648.21	1622647.99	334553.77	39°24'39.047"N	80°50'08.086"W	1337.17	208.997	1.57	-0.04	1.57
7650.00	89,510	159.580	6340.56	966,28	-1252.52	-616.04	1622680.17	334470.80	39°24'38.232"N	80°50'07.661"W	1395.81	206,190	1.84	0.60	1.74
7740.00	89.690	161.140	6341.19	1056.28	-1337.28	-585.79	1622710.41	334386.05	39°24'37.399'N	80°50'07.260"W	1459.95	203.656	1.74	0.20	1.73
7830.00	90.250	163.200	6341.24	1146.21	-1422.95	-558.23	1622737.97	334300.38	39°24'36.556"N	80°50'06.892"W	1528,53	201.420	2.37	0.62	2.29
7919.00	90.740	0.2274240	6340.47	1235.00	-1508.45	-533.54	1622762.66	334214.88	39°24'35.715"N	80°50'06.561"W	1600.02	199,479	1.65	0.55	1.55
8009.00	90,620	163,450	6339,40	1324,77	-1594.96	-508.76	1622787.44	334128.38	39°24'34.863"N	80°50'06.229"W	1674.14	197.692	1,26	-0.13	-1.26
8098.00	90,490	No. of State	6338.54	1413.69	-1679.72	-481.65	1622814.55	334043.62	39°24'34.030"N	80°50'05.868"W	1747.41	196,000	2.67	-0.15	-2.66



### **Actual Wellpath Report**

SHR-3G-HS AWP Proj: 15916'

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#### REFERENCE WELLPATH IDENTIFICATION

Operator NOBLE ENERGY Slot G 5
Area Tyler County, WV Well SHR-3G-HS
Field Tyler Wellbore SHR-3G-HS AWB

Facility SHR-3 Pad

WELLPATH	DATA (	178 stations)	
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MD [ft]	Inclination [°]	Azimuth [°]	TVD	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir	DLS [%100m]	Build Rate [*/100ft]	Turn Rate
8188.00	90,550	158.110	6337.72	1503.67	-1764.06	450.27	1622845.92	333959.29	39°24'33.201"N	80°50'05.452"W	1820.62	194.319	3.30	0.07	-3.30
8277.00	90.580	156.910	6336.84	1592.58	-1846.29	-416.23	1622879.96	333877.06	39°24'32.393"N	80°50'05.003"W	1892.62	192.705	1.35	0.03	-1.35
8367.00	90,520	157,970	6335.98	1682.49	-1929.39	-381.71	1622914.48	333793.96	39°24'31.577"N	80°50'04.548"W	1966.79	191.191	1.18	-0.07	1.18
8456.00	90.920	158.500	6334.86	1771.44	-2012.04	-348.71	1622947.48	333711.32	39°24'30.765"N	80°50'04.112"W	2042.04	189.832	0.75	0.45	0.60
8546.00	90.950	158.780	6333.39	1861.40	-2095.85	-315.93	1622980.26	333627.52	39°24'29.942"N	80°50'03.678"W	2119.53	188.572	0.31	0.03	0.31
8635.00	91.450	157.510	6331.53	1950.33	-2178.43	-282.81	1623013.38	333544.94	39"24'29.130"N	80°50'03.241"W	2196.71	187_397	1.53	0.56	-1.43
8724.00	91.720	155,100	6329.06	2039.10	-2259.89	-247.06	1623049.12	333463.48	39°24'28.331"N	80°50'02,770"W	2273.36	186,239	2.72	0.30	2.71
8814.00	92.120	152.860	6326.05	2128.55	-2340.72	-207.60	1623088.58	333382.66	39°24'27.538"N	80°50'02.252"W	2349.91	185.068	2.53	0.44	-2.49
8904.00	90.920	155,280	6323.66	2218.03	-2421.62	-168.27	1623127.91	333301.76	39°24'26.744"N	80°50'01,736°W	2427.46	183.975	3.00	-1.33	2.69
8993.00	90.740	159.110	6322.37	2306.90	-2503.64	-133.78	1623162,40	333219.74	39°24'25.938"N	80°50'01,281"W	2507.21	183,059	4.31	-0.20	4.30
9082.00	90.860	160.740	6321.13	2395.89	-2587.22	-103.23	1623192.94	333136.17	39°24'25.117"N	80°50'00,876°W	2589.28	182.285	1.84	0.13	1.83
9172.00	90.430	159.970	6320.12	2485.88	-2671.98	-72.98	1623223.19	333051.42	39°24'24.284"N	80°50'00.474°W	2672.98	181.565	0.98	-0.48	-0.86
9261.00	90.400	159,990	6319.47	2574.88	-2755.60	-42.51	1623253.66	332967.80	39°24'23.462"N	80°50'00.071*W	2755.93	180.884	0.04	-0.03	0.02
9351.00	90.310	160.640	6318.91	2664.87	-2840.34	-12.20	1623283.98	332883.07	39°24'22.629"N	80°49'59.668"W	2840,36	180.246	0.73	-0.10	0.72
9441.00	89.940	162,420	6318.72	2754.84	-2925.70	16.32	1623312.49	332797.71	39°24'21.790"N	80°49'59.289*W	2925.74	179.680	2.02	-0.41	1.98
9530.00	89.750	164.240	6318.96	2843.68	-3010.95	41.85	1623338.01	332712.46	39°24'20.951"N	80"49'58,948"W	3011.24	179,204	2.06	-0.21	2.04
9620.00	89.750	163.180	6319.35	2933.49	-3097.34	67.09	1623363.26	332626.08	39°24'20.101"N	80°49'58.610'W	3098.06	178.759	1.18	0.00	-1 18
9709.00	89.850	160.650	6319.66	3022.43	-3181.93	94.72	1623390.88	332541.49	39°24'19.269"N	80°49'58,242*W	3183.34	178.295	2.84	0.11	-2.84
9798.00	89.480	158.680	6320.18	3111.43	-3265.38	125.64	1623421.80	332458.05	39°24'18.449"N	80°49'57.832"W	3267,80	177.797	2.25	-0.42	-2.21
9888.00	89.230	159.150	6321.19	3201.40	-3349.35	158.02	1623454.18	332374.08	39°24'17.624"N	80°49'57.404"W	3353.08	177.299	0.59	-0.28	0.52
9978.00	89.320	160.550	6322.33	3291.39	-3433.83	189.02	1623485.18	332289.60	39°24'16.793"N	80°49'56.993"W	3439.03	176.849	1.56	0.10	1.56
10067.00	89.570	162.080	6323.20	3380.36	-3518.13	217.53	1623513.69	332205.31	39°24'15.964"N	80°49'56,614"W	3524.85	176,462	1.74	0.28	1,72
10157.00	89.380	162.360	6324.02	3470.29	-3603.83	245.01	1623541.17	332119.61	39°24'15.121"N	80°49'56.248"W	3612.15	176.111	0.38	-0.21	0.31
10247.00	89.540	162.110	6324.87	3560.22	-3689.54	272,47	1623568.62	332033.91	39°24'14.278"N	80°49'55.882"W	3699.58	175.776	0.33	0.18	-0.28
10336.00	88.950	161.680	6326.04	3649.16	-3774.12	300.12	1623596.28	331949.33	39°24'13.447"N	80°49'55.514"W	3786.04	175.453	0.82	-0.66	-0.48
10426.00	89.170	161.820	6327.52	3739.11	-3859.58	328.30	1623624.46	331863.88	39°24'12.606"N	80°49'55.138"W	3873.52	175.138	0.29	0.24	0.16
10515.00	89,020	161,940	6328.92	3828.05	-3944.16	355.98	1623652.13	331779.31	39°24'11.774"N	80°49'54.770"W	3960.19	174.843	0.22	-0.17	0.13
10605.00	89.020	162.110	6330.46	3917.98	-4029.75	383.75	1623679.90	331693.72	39°24'10.933"N	80°49'54.400"W	4047.98	174,560	0.19	0.00	0.19
10694.00	88.800	161.350	6332.16	4006.92	4114.25	411.65	1623707.79	331609.22	39°24'10.102"N	80°49'54.029"W	4134.79	174.286	0.89	-0.25	-0.85
10784.00	89.200	160.490	6333.73	4096.90	-4199.29	441.06	1623737.21	331524.19	39°24'09.266"N	80°49'53.638"W	4222.39	174.004	1.05	0.44	-0.96



# Actual Wellpath Report SHR-3G-IIS AWP Proj: 15916' Page 6 of 9

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#### REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY	Slot	Slot G
Area	Tyler County, WV	Well	SHR-3G-HS
Field	Tyler	Wellbore	SHR-3G-HS AWB

Facility SHR-3 Pad

WELLPATH DATA (	178 stations)
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MD	Inclination [4]	Azimuth [°]	TVD [ft]	Vert Sect	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir	DLS [%100ft]	Build Rate [9/100fd]	Turn Rate [2/100ft]
10873.00	89,940	159.880	6334.39	4185.89	-4283.02	471.23	1623767.37	331440.46	39°24'08.443"N	80°49'53.238"W	4308,87	173.721	1.08	0.83	-0.69
10963.00	90,120	158.350	6334.35	4275.88	-4367.10	503.31	1623799.46	331356.38	39°24'07.616"N	80°49'52.813"W	4396.01	173.426	1.71	0.20	-1.70
11053.00	88.980	156,760	6335.05	4365.79	-4450,28	537.67	1623833.81	331273.21	39°24'06,799"N	80°49'52.360'W	4482.64	173.111	2.17	-1.27	-1.77
11142.00	89.420	156,990	6336.30	4454.65	-4532.12	572.62	1623868.76	331191.38	39°24'05,996"N	80°49'51.899"W	4568.15	172.799	0.56	0.49	0.26
11232.00	89.540	157,370	6337.11	4544.54	-4615.07	607.53	1623903.66	331108.43	39°24'05,181"N	80°49'51.439"W	4654.89	172.501	0.44	0,13	0.42
11321.00	89.970	157.510	6337.49	4633.45	-4697.26	641.67	1623937.81	331026.24	39°24'04.374"N	80°49'50.989"W	4740.89	172.221	0.51	0.48	0.16
11411.00	90.620	156.860	6337.03	4723.34	4780.22	676.57	1623972.70	330943.29	39°24'03.559°N	80°49'50.529"W	4827.86	171.944	1.02	0.72	+0.72
11501.00	90.460	157.220	6336.18	4813.21	-4863.08	711.67	1624007.80	330860.43	39°24'02.745°N	80°49'50.066"W	4914.88	171.674	0.44	-0.18	0.40
11590,00	90.000	158.150	6335.83	4902.14	-4945.42	745.47	1624041.60	330778.10	39°24'01.937"N	80°49'49,620"W	5001.29	171.428	1.17	-0.52	1,04
11680.00	89,940	158.320	6335.87	4992.09	-5029.00	778.84	1624074.97	330694.52	39°24'01.115"N	80°49'49.179"W	5088.95	171.197	0.20	-0.07	0.19
11769.00	89,910	159,180	6335.99	5081.07	-5111.95	811.09	1624107.22	330611.58	39°24'00.300*N	80°49'48.753"W	5175.90	170.984	0.97	-0.03	0.97
11859.00	89.970	160.250	6336.08	5171.07	-5196.37	842.30	1624138.42	330527.17	39°23'59,471"N	80°49'48.339"W	5264.19	170.793	1.19	0.07	1.19
11949.00	90.150	162.280	6335.99	5261.04	-5281.59	871.20	1624167.32	330441.94	39°23'58.633"N	80°49'47.955"W	5352.96	170.633	2.26	0.20	2.26
12038.00	90.340	162.830	6335.61	5349.95	-5366.50	897.88	1624194.00	330357.04	39°23'57.798"N	80°49'47.599"W	5441.09	170.502	0.65	0.21	0.62
12128.00	90.680	163.900	6334.81	5439.79	-5452.73	923,65	1624219.77	330270.82	39°23'56,949*N	80°49'47.255"W	5530.40	170.386	1.25	0.38	1.19
12217.00	91.110	165,200	6333.42	5528.50	-5538.50	947.35	1624243.47	330185.05	39°23'56.105"N	80°49'46.937"W	5618.94	170.294	1.54	0.48	1.46
12307.00	91.080	161.710	6331.70	5618.31	-5624.74	972.97	1624269.09	330098.81	39°23'55.256"N	80°49'46.594"W	5708.28	170.186	3.88	-0.03	-3.88
12396.00	91.420	158.010	6329.75	5707.27	-5708.27	1003.60	1624299.72	330015.29	39°23'54.436"N	80°49'46.188"W	5795.82	170.028	4.17	0.38	4.16
12486.00	91.420	157.280	6327.52	5797.16	-5791.48	1037.82	1624333.94	329932.09	39°23'53.618"N	80°49'45,737"W	5883.73	169.841	0.81	0.00	-0.81
12576.00	91.820	157,410	6324.98	5887.03	-5874.50	1072.48	1624368.59	329849.07	39°23'52.803"N	80°49'45.280"W	5971.59	169.654	0.47	0.44	0.14
12666.00	91.720	159.330	6322.20	5976.95	-5958.12	1105.63	1624401.74	329765.46	39°23'51.981"N	80°49'44.842"W	6059.83	169.487	2.14	-0.11	2.13
12755.00	91.570	158,790	6319.64	6065.90	-6041.20	1137.43	1624433.54	329682.37	39°23'51.165"N	80°49'44.421"W	6147.35	169.337	0.63	-0.17	-0.61
12845.00	91,230	157,250	6317.45	6155.82	-6124,64	1171.10	1624467.21	329598.95	39°23'50.345"N	80°49'43.976"W	6235.59	169.175	1.75	-0.38	-1.71
12934.00	91,230	157.670	6315.54	6244.71	-6206.82	1205.21	1624501.32	329516.77	39°23'49.538"N	80°49'43.526"W	6322.75	169.011	0.47	0.00	0.47
13024.00	91.570	159.620	6313.34	6334.65	-6290.61	1237.97	1624534.08	329432.98	39°23'48.715"N	80°49'43.093"W	6411.27	168.867	2.20	0.38	2.17
13113.00	91.350	161,690	6311.07	6423.61	-6374.55	1267,44	1624563.54	329349.04	39°23'47.890'N	80°49'42.702"W	6499.33	168.755	2.34	-0.25	2.33
13203.00	92.090	157.730	6308.37	6513.55	-6458.91	1298.63	1624594.73	329264.69	39°23'47.060"N	80°49'42.289"W	6588.17	168.632	4.47	0.82	4.40
13292.00	90.860	157.990	6306.07	6602.46	-6541.32	1332.16	1624628.26	329182.28	39°23'46.251"N	80°49'41.846"W	6675.59	168.489	1.41	-1.38	0.29
13382.00	90,000	157,900	6305.40	6692.40	-6624.73	1365.96	1624662.05	329098.88	39°23'45.432"N	80*49'41.400"W	6764.09	168.349	0.96	-0.98	-0.10
13471.00	88.920	160.050	6306.24	6781.37	-6707.80	1397.88	1624693.98	329015.82	39°23'44.615"N	80°49'40.978"W	6851.91	168.228	2.70	-1.21	2.42



# Actual Wellpath Report SHR-3G-HS AWP Proj: 15916' Page 7 of 9



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Operator	NOBLE ENERGY	Slot	Slot G	800	90	OF I
Area	Tyler County, WV	Well	SHR-3G-HS	8	V	Wiror
Field	Tyler	Wellbore	SHR-3G-HS AWB			핃
Facility	SHR-3 Pad					

WELLPATH DATA (178 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD	Vert Sect [R]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist	Closure Dir	DLS [%100fc]	Build Rate [º/100ft]	Turn Rate [9/100ft]
13561.00	89.050	161.800	6307.83	6871.34	-6792.84	1427.29	1624723.38	328930.78	39°23'43.779°N	80°49'40.588"W	6941.17	168.134	1.95	0.14	1.94
13651.00	88.770	161.750	6309.54	6961.28	-6878.31	1455.43	1624751.52	328845.32	39°23'42.939"N	80°49'40.213"W	7030.61	168.053	0.32	-0.31	-0.06
13740.00	89,720	163,720	6310,72	7050.17	-6963.29	1481.84	1624777.93	328760.34	39°23'42.103°N	80°49'39.861"W	7119.21	167.986	2,46	1.07	2.21
13830.00	90,060	167.290	6310.89	7139.74	-7050.41	1504.36	1624800.45	328673.23	39°23'41.245"N	80°49'39.557"W	7209.12	167.955	3.98	0.38	3.97
13919.00	89.080	165.480	6311.56	7228.18	-7136.90	1525.31	1624821.40	328586.74	39°23'40.393"N	80°49'39.274"W	7298.08	167.936	2.31	-1.10	-2.03
14009.00	88,060	163.520	6313.80	7317.87	-7223.59	1549,36	1624845.44	328500.05	39°23'39,540"N	80°49'38.952"W	7387.88	167.894	2.45	-1.13	2.18
14099.00	88.030	162.550	6316.88	7407.69	-7309.63	1575.60	1624871.68	328414.02	39°23'38.694"N	80°49'38.601"W	7477.51	167,836	1.08	-0.03	-1.08
14188.00	88.770	160,530	6319.36	7496,62	-7394.01	1603.77	1624899.85	328329.64	39°23'37.864"N	80°49'38.227"W	7565.94	167.762	2.42	0.83	-2.27
14278.00	88,520	158,210	6321.49	7586.58	-7478.21	1635,47	1624931.55	328245.45	39°23'37.037'N	80°49'37.807"W	7654.96	167.664	2.59	-0.28	-2.58
14367.00	88,550	158.050	6323.76	7675.50	-7560.78	1668.61	1624964.69	328162.89	39°23'36.225"N	80°49'37.370"W	7742.71	167.555	0.18	0,03	-0.18
14457.00	88,770	158.970	6325.87	7765.45	-7644.49	1701.57	1624997.65	328079.17	39°23'35.403"N	80°49'36.934"W	7831.58	167.451	1.05	0.24	1.02
14547.00	89.630	157.960	6327.13	7855.40	-7728.20	1734.60	1625030.68	327995.47	39"23'34.580"N	80°49'36.498"W	7920.48	167.350	1.47	0.96	-1.12
14636.00	89.510	155.890	6327,79	7944.27	-7810.07	1769.48	1625065.56	327913.60	39°23'33.776"N	80°49'36.038"W	8008.02	167.234	2.33	-0.13	-2.33
14726.00	89.510	157.900	6328.56	8034.13	-7892.85	1804.80	1625100.87	327830.83	39°23'32.964"N	80°49'35.573"W	8096.56	167.120	2.23	0.00	2.23
14815.00	90,000	161.350	6328.94	8123.11	-7976.27	1835.78	1625131.85	327747.42	39"23'32.144"N	80°49'35,162"W	8184.80	167,039	3.92	0,55	3.88
14905.00	90,000	161.130	6328.94	8213.09	-8061.48	1864.72	1625160.79	327662.20	39"23'31.306"N	80°49'34,778"W	8274.34	166.976	0.24	0.00	-0.24
14995.00	89.880	159.600	6329.04	8303.09	-8146.25	1894.96	1625191.03	327577.44	39"23'30.473"N	80°49'34.377"W	8363,75	166.905	1.71	-0.13	-1.70
15084.00	89.720	158.560	6329.35	8392.07	-8229.38	1926.74	1625222.81	327494.32	39°23'29.656"N	80°49'33.956"W	8451.93	166.823	1.18	-0.18	-1.17
15174.00	89.750	158.870	6329.77	8482.05	-8313.24	1959.41	1625255.48	327410.46	39"23'28.832"N	80°49'33.524"W	8541.03	166.738	0.35	0.03	0.34
15263.00	89,850	159,990	6330,08	8571.04	-8396.56	1990.68	1625286.74	327327.14	39°23'28.013"N	80°49'33.111"W	8629.32	166,662	1.26	0.11	1.26
15353.00	89.940	161.760	6330.24	8661.03	-8481.59	2020.17	1625316.23	327242.12	39"23"27.177"N	80°49'32.719"W	8718.86	166,603	1.97	0.10	1.97
15443.00	89,970	162.360	6330.31	8750.97	-8567.22	2047.89	1625343.95	327156.50	39°23'26.335"N	80°49'32,350"W	\$808.58	166.556	0.67	0.03	0.67
15532.00	90,060	161.560	6330.29	8839.92	-8651.84	2075.45	1625371.51	327071.88	39°23'25.502"N	80°49'31.983"W	8897.29	166.510	0.90	0.10	-0.90
15622.00	90,000	160.540	6330.24	8929.90	-8736.96	2104.68	1625400.73	326986.76	39°23'24.665"N	80°49'31.595"W	8986.89	166.456	1.14	-0.07	-1.13
15712.00	89.880	159.820	6330.34	9019.90	-8821.63	2135.19	1625431.25	326902.10	39°23'23.833"N	80°49'31.190"W	9076.35	166,394	0.81	-0.13	-0.80
15801.00	90.280	158,800	6330.21	9108.89	8904.89	2166.64	1625462.69	326818.85	39°23'23.015"N	80°49'30.774"W	9164.68	166.325	1.23	0.45	1.15
15891.00	90.120	158,360	6329,90	9198.86	-8988.67	2199.51	1625495.56	326735.07	39°23'22.192"N	80°49'30,340"W	9253.87	166.250	0.52	-0.18	-0.49
15916.00	90.120	158.360	6329.84	9223.85	-9011.91	2208.72	1625504.77	326711.83	39"23'21.963"N	80*49'30.218"W	9278.63	166.229	0.00	0.00	0.00



# Actual Wellpath Report SHR-3G-HS AWP Proj: 15916'

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#### REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY	Slot	Slot G
Area	Tyler County, WV	Well	SHR-3G-HS
Field	Tyler	Wellbore	SHR-3G-HS AWB
Facility	SHR-3 Pad		

#### TARGETS

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SHR-3G-HS BHL Rev-2		6331.00	-9009.34	2215.78	1625511.83	326714.40	39°23'21.990"N	80°49'30.129"W	point
SHR-3G-HS LP Rev-2		6331.00	-693.06	-811.10	1622485.11	335030.23	39°24'43.732"N	80°50'10.252"W	point
SHR-3G-HS LP Plat		6339.00	-512.01	-877.00	1622419.22	335211.27	39°24'45.511"N	80°50'11.126"W	point
SHR-3 Pad LL		6500.24	20.19	1.86	1623298.03	335743.44	39°24'50.900"N	80°50'00.030°W	palygon

WELLPATH	COMPOSIT	ION - Ref Wellbore: SHR-3G-HS AWB	Ref Wellpath: SHR-3G-HS AWP Proj: 15916'

Start MD	End MD	Positional Uncertainty Model	Log Name/Comment	Wellbore	
18.50	2112.50	Generic gyro - northseeking (Standard)	01_MS Gyro <12-1/4"> (100'-2094')	SHR-3G-HS AWB	
2112.50	5051.00	NaviTrak (MagCorr)	02 BHI MWD <8-3/4"> (2112.5')(2225'-5051')	SHR-3G-HS AWB	
5051.00	15891.00	NaviTrak (AT Curve Short Spaced)	03 BHI AT Curve <8-3/4"> (5051')(5141'-15891')	SHR-3G-HS AWB	
15891.00	15916.00	Blind Drilling (std)	Projection to bit	SHR-3G-HS AWB	



### **Actual Wellpath Report**

SHR-3G-HS AWP Proj: 15916'

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2 0 2021

REFERE	NCE WELLPATH IDENTIFICATION	Light of the state		
Operator	NOBLE ENERGY	Slot	Slot G	wire
Area	Tyler County, WV	Well	SHR-3G-HS	Ф
Field	Tyler	Wellbore	SHR-3G-HS AWB	
Facility	SHR-3 Pad			

#### COMMENTS

#### Wellpath general comments

API: 47-095-02198-0000 BHI Job #: 7024800 Rig: Precision 542

Duration: 3/6/2015-3/17/2015 MS Gyro <12-1/4"> (100'-2094')

BHI MWD <8-3/4"> (2112.5')(2225'-5051') BHI AT Curve <8-3/4"> (5051')(5141'-15891')

Projected MD at TD: 15916'

11/10/2016

#### PLUGGING PERMIT CHECKLIST

AUG 2 0 2021 D

Plugging Permit	WV Department of Environmental Protection
WW-4B	1000/1
WW-4B signed by inspector	
WW-4A	
SURFACE OWNER WAIVER or PROOF THAT APPLICATION WAS SENT	BY REGISTERED OR CERITFIED
COAL OWNER/COAL OPERATOR/COAL LESSEE WAIVERS or PROOF THE	HAT APPLICATION WAS SENT
WW-9 PAGE 1 (NOTARIZED)	
WW-9 PAGE 2 with attached drawing of road, location, pit and prope	osed area for land application
WW-9 GPP PAGE 1 and 2 if well effluent will be land applied	
RECENT MYLAR PLAT OR WW-7	
WELL RECORDS/COMPLETION REPORT	
TOPOGRAPHIC MAP OF WELL, SHOWING PIT IF PIT IS USED	
MUST HAVE VALID BOND IN OPERATOR'S NAME	
CHECK FOR \$100 IF PIT IS USED	



#### Stansberry, Wade A <wade.a.stansberry@wv.gov>

#### Plugging H6A Horizontal Well Work Permit (API: 47-095-02198)

1 message

Stansberry, Wade A <wade.a.stansberry@wv.gov>

Wed, Sep 8, 2021 at 2:31 PM

To: "Kendziora, Anthony" <anthonykendziora@consolenergy.com>, "Hoon, Raymond" <raymondhoon@cnx.com>, Derek Haught <derek.m.haught@wv.gov>, ljackson@wvassessor.com

I have attached a copy of the newly issued well permit number, "SHR3GHS", API: (47-095-02198). This will serve as your copy.

If you have any questions, then please contact us here at the Office of Oil and Gas.

Thank you,

Wade A. Stansberry

**Environmental Resource Specialist 3** 

**West Virginia Department of Environmental Protection** 

Office of Oil & Gas

601 57th St. SE

Charleston, WV 25304

(304) 926-0499 ext. 41115

(304) 926-0452 fax

Wade.A.Stansberry@wv.gov

#### 2 attachments



