



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS MANAGEMENT

DEP USE ONLY	
Auth No 1564361	APS No.# 1128606
Site No 789933	PF No 880721
Client No 141142	SF No. 1436281

RECEIVED
3/31/2026

ALT SITE ID: WLPAD - BIRD RUN
APPLICATION FOR INACTIVE WELL STATUS

Well Operator RangeResources-Appalachia, LLC		DEP Client ID No. 141142	Well Permit or Registration No. 37-125-29187	
Address 3000 Town Center Blvd.			Well Farm Name Bird Run 10938	Well No. 1H
City Canonsburg		State PA	Zip Code 15317	County Washington
Telephone No. 724/743-6700		Fax No. 724/743-6790	Bond Instrument No. 6855	Municipality Chartiers Twp
Is this an application for annual extension of inactive status? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Check here if this application is being submitted for conditional inactive status in association with longwall mining: <input type="checkbox"/>				

Condition of the Well	Describe in detail how the condition of the well satisfies the criteria for approval of inactive status. See 25 Pa. Code §§ 78/78a.102(i), (2)(i) or (ii) and (3). Use additional sheets if necessary. If available, attach well records, driller's logs, and other information describing well casing, cement, equipment, and any other pertinent information. Note that if this application is being submitted in conformance with DEP Technical Guidance Document 800-0810-004 <i>Guidelines for Chain Pillar Development and Longwall Mining Adjacent to Unconventional Wells</i> , the Well Record/Completion Report may be referenced for all well construction information, and all tubing and annular pressures should be at 0 prior to adjacent longwall mining encroaching within 1,500 feet of the well location. Finally, all annuli should be open to the atmosphere and the inactivation procedure may be referenced under the section titled "Other information about the well's condition."
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Well Type: Gas Oil Combination Oil & Gas Injection Storage Disposal

Casing Diameters: 18.625"	Casing Lengths: 202'	Type and amount of cement (sacks) used for surface casing: Class L, 440 (sacks)
13.375"	277'	Tubing or Production Casing Pressure (current): 0 (psi)
9.625"	1659'	If an oil well, state the depth to fluid in the surface casing:
Tubing or production casing diameter: 5.5"	Tubing or production casing length: 1597'	Annulus Pressure (current - between tubing or production casing and surface casing): 0 (psi)
		Are all annuli open to atmosphere? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Other information about the well's condition:
N/A

Future Use of the Well	Describe a viable plan in accordance with 25 Pa. Code §78/78a.102(4) explaining the intended use of the well within a reasonable time. Provide the information requested below and any other information necessary for DEP to make a determination on inactive status for this well. Note that if this application is being submitted in conformance with DEP Technical Guidance Document 800-0810-004 <i>Guidelines for Chain Pillar Development and Longwall Mining Adjacent to Unconventional Wells</i> , the following text may be entered under the section regarding the future plan for the well: "Return well to production subsequent to final panel extraction when mining is at least 1,500 feet beyond well in chain pillar, as per re-entry procedure and TGD."
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Provide certification that one of the following applies (check one):
 Significant reserves remain in place and I plan to return the well to production.

Provide estimate of reserves: **MMcf:** **Bbls:**

The well will be used for: Disposal Storage Observation Injection - Recovery Other (describe)

This well will be returned to use in: Month: August **Year:** 2026

State your plan for future use of the well.
Range Resources-Appalachia, LLC certifies this well is of future utility. The well is drilled to TD and is awaiting completions operations currently scheduled for June 2026.



Conditional Inactive Status Checklist	For unconventional wells drilled in anticipated chain pillar locations that are being temporarily inactivated to accommodate planned, adjacent longwall mining, please provide the items included in the checklist below in addition to this application. More specific information about these items is detailed in DEP Technical Guidance Document 800-0810-004 <i>Guidelines for Chain Pillar Development and Longwall Mining Adjacent to Unconventional Wells</i> .
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Please include the following items with the inactive status application:

- Temporary Well Inactivation Procedure
 Temporary Inactivation Well Schematic
 General Specifications for Cements/Gels
 Current Well Record and Completion Report
 Well Location Plat
 Electrical/Mechanical Well Logs
 Graphical Production History Summary
 Well Re-entry Procedure
 Post-mining Well Long-term Monitoring Procedure

Provide additional details, if necessary.

N/A

Signature of Applicant (Well Operator)		DEP USE ONLY	
Signature: <u></u> Date: <u>3-31-2026</u> Print or type signer's name and title: <u>JEREMY MATINKO VP-ENV. COMPL.</u>	<input checked="" type="checkbox"/> Approved <input type="checkbox"/> Denied by (DEP Manager): <u></u>	Date	<u>5/5/2026</u>



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DEP USE ONLY	
Site ID	Client Id
Primary Facility Id	Sub Facility Id

Well Record
(Unconventional Operators Only)

WELL INFORMATION

Well Operator Range Resources - Appalachia, LLC	DEP ID# 141142	US Well No. (API No.) 37-125-29187-00-00	Farm Name BIRD RUN 10938	Well # 1H
Address 3000 Town Center Blvd		Latitude (DD) 40.243263	Project Number	Serial #
City Canonsburg		Longitude (DD) -80.235117		
State PA	Zip 15317-5839	Municipality Chartiers	County Washington	
Phone 724-743-6700	email jhinson@rangeresources.com	Borrow Pit	USGS 7.5 min. quadrangle map Washington East	Section 1

Check the appropriate Submission: Original Well Record Amended Well Record

Well Type <input checked="" type="checkbox"/> Gas	Well Orientation <input type="checkbox"/> Vertical <input checked="" type="checkbox"/> Deviated from Vertical (Top & Side views & Deviation Survey must be attached)	Wellbore Conditioning: See Attached
Drill Method(s) <input checked="" type="checkbox"/> Rotary - Air 7056' <input checked="" type="checkbox"/> Rotary - Mud 15990' <input type="checkbox"/> Cable Tool <input type="checkbox"/> Other		
Drilling Started 02/05/2025	Surface Elev. 1261 ft.	GW Depth - None observed
Drilling Complete 04/09/2025	True Vertical Depth 6639 ft.	Depth of DFGW - None observed
Date Well Completed 04/11/2025	Total Measured Depth 15990 ft.	DFGW decided by: 6

CEMENT

Cement returned on surface casing? Yes No
 Cement returned on coal protective casing? Yes No
 Cement returned on intermediate casing? Yes No

If No, provide depth to top of cement and method used to determine: NA

Casing String	Type/Class of Cement (Lead/Tail)	Slurry Temp F°	Amount of Cement (sacks) (Lead/Tail/Total)	WOC hrs	Wt ppg	Yield #ft ³ /sacks	Gas Migration Controls Used	
Conductor	Portland	-	108 / 0 / 108	24			What controls were used if any (additives/ hardware. Specify type and depth applicable). See Attached - page 6	
Surface	Class L	46°	440 / 0 / 440	8	15.6	1.15		
Coal Protective	Class L	60°	300 / 0 / 300	8	15.7	1.24		
Intermediate	Class L	48°	605 / 0 / 605	8	15.7	1.23		
Production	Class A	83°	0 / 2303 / 2303	8	15.0	1.29		
If additional strings attach form(s)			Total: 3756					

CASING AND TUBING

Hole Size	Pipe Size	Wt. #/ft.	Grade Casing / Tubing Type	Thread / Weld - New/Used	Amount in Well (ft.)	CO	R	Hardware - Baskets / Packer / Centralizers (Total/String)	Date Run	
								Type	Size	Depth
32"	26"	85.68#	Line Pipe	W/N	41	US	Y			02/05/2025
24"	18.625"	87.5#	J-55	T (BTC) - N	202	UK	Y	See Attached		02/19/2025
17.5"	13.375"	54.5#	J-55	T (BTC) - N	277	KR	Y	See Attached		02/20/2025
12.25"	9.625"	40.0#	J-55	T (LTC) - N	1659	CA	Y	See Attached		02/21/2025
8.75" & 8.625" & 8.5"	5.5"	20.0#	HP P-110	T (GBCD) - N	15977	US	Y	See Attached		04/10/2025

PLUG-BACK/WELLBORE ALTERATION

Fill Material & Plugs	Depth		Date	Casing & Tubing		
	From	To		Size	Pulled	Left

LOG OF FORMATIONS

US Well No. (API No.): **37-125-29187-00-00**

(If you will need more space than this page, please photocopy the blank form before filling it in.)

Formation Name or Lithology	Top (feet)	Bottom (feet)	Gas at (feet)	Oil at (feet)	Water at (fresh / brine; ft.)	Source of Data
Fill	0	49				Mudlog
Silt/Lime/Sand	49	109				Mudlog
Silt/Sand	109	234				Mudlog
Pittsburgh Coal (open mine)	234	240				Mudlog
Siltstone/Shale	240	419				Mudlog
Murphy Sand	419	539				Mudlog
Red Rock	539	540				Mudlog
Siltstone/Shale	540	602				Mudlog
Bakerstown	602	731				Mudlog
Big Dunkard	731	769				Mudlog
Siltstone/Shale	769	804				Mudlog
Upper Freeport	804	805				Mudlog
Silt/Sand	805	871				Mudlog
Lower Freeport	871	872				Mudlog
Silt/Sand	872	911				Mudlog
1st Gas Sand	911	939				Mudlog
Silt/Sand	939	982				Mudlog
Middle Kittanning	982	983				Mudlog
Silt/Sand	983	1023				Mudlog
Lower Kittanning	1023	1024				Mudlog
Silt/Sand	1024	1031				Mudlog
1st Salt Sand	1031	1089	1080			Mudlog
Silt/Sand	1089	1101				Mudlog
Clarion	1101	1102				Mudlog
Silt/Sand	1102	1175				Mudlog
2nd Salt Sand	1175	1199				Mudlog
Silt/Sand/Lime	1199	1339				Mudlog


Continued on next page

If no show of oil, gas or water, explain why: No show of water on Mudlog or MWD log

WELL SERVICE COMPANIES (Provide the name, address, and telephone number of all well service companies involved.)

Casing Source	Cementing Company	Hardware Supplier	Logging Company
See Attachment	Name See Attachment	See Attachment	See Attachment
	Address		
	City - State - Zip		
	Phone		

I do hereby certify to the best of my knowledge, information and belief that the well identified on this Well Record has been properly cased and cemented in accordance with the requirements of 25 Pa. Code Chapter 78a and any conditions contained in the permit for this well. In addition, I do hereby certify that any casing which is attached to a blow-out preventer with a pressure rating greater than 3,000 psi has passed a pressure test in accordance with 25 Pa. Code §78a.84(f). I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Driller		Well Operator's Signature		DEP USE ONLY	
Name See Attachment	Rig	 Printed Name / Title: Jon Hinson / Sr. Drilling Engineer Date: 05/07/2025		Reviewed by:	
Address				Comments:	
City - State- Zip					
Phone					

LOG OF FORMATIONS

US Well No. (API No.): 37-125-29187-00-00

(If you will need more space than this page, please photocopy the blank form before filling it in.)

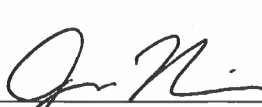
Formation Name or Lithology	Top (feet)	Bottom (feet)	Gas at (feet)	Oil at (feet)	Water at (fresh / brine; ft.)	Source of Data
Big Lime	1339	1380				Mudlog
Big Injun	1380	1544				Mudlog
Silt	1544	1609				Mudlog
Squaw Sand	1609	1671				Mudlog
Silt/Sand	1671	1853				Mudlog
Murrysville	1853	1912				Mudlog
Silt/Sand	1912	2018				Mudlog
Gantz	2018	2041				Mudlog
100 Ft Sand	2041	2089				Mudlog
Sand/Silt	2089	2174				Mudlog
Nineveh	2174	2232				Mudlog
Gordon Stray	2232	2245				Mudlog
Gordon	2245	2283				Mudlog
Upper Fifth Sand	2283	2299				Mudlog
Silt/Sand	2299	2329				Mudlog
Lower Fifth Sand	2329	2396				Mudlog
Bayard	2396	2419				Mudlog
Silt/Sand	2419	2426				Mudlog
Bayard Stray	2426	2444				Mudlog
Silt/Sand	2444	2872				Mudlog
Lower Warren	2872	2974				Mudlog
Siltstone/Shale	2974	3170				Mudlog
Upper Speechley	3170	3272				Mudlog
Silt/Shale	3272	4594				Mudlog
5th Elk	4594	4599				Mudlog
Silt/Sand/Shale	4599	4932				Mudlog
Lower Huron	4932	5199				Mudlog

If no show of oil, gas or water, explain why: No show of water on Mudlog or MWD log

WELL SERVICE COMPANIES (Provide the name, address, and telephone number of all well service companies involved.)

Casing Source	Cementing Company	Hardware Supplier	Logging Company
See Attachment	Name See Attachment	See Attachment	See Attachment
	Address		
	City - State - Zip		
	Phone		

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Driller		Well Operator's Signature		DEP USE ONLY	
Name See Attachment	Rig	 Printed Name / Title: Jon Hinson / Sr. Drilling Engineer Date: 05/07/2025		Reviewed by:	
Address				Comments:	
City - State- Zip					
Phone					

LOG OF FORMATIONS

US Well No. (API No.): 37-125-29187-00-00

(If you will need more space than this page, please photocopy the blank form before filling it in.)


Formation Name or Lithology	Top (feet)	Bottom (feet)	Gas at (feet)	Oil at (feet)	Water at (fresh / brine; ft.)	Source of Data
Silt/Shale	5199	6780				Mudlog
Rhinestreet	6780	6840	6780			Mudlog
Cashaqua	6840	7000				Mudlog
Middlesex	7000	7098	7000			Mudlog
Genesee	7098	7170				MWD
Burket	7170	7196	7170			MWD
Tully	7196	7275				MWD
Mahantango	7275	7414	7275			MWD
Marcellus	7414	15990	7414			MWD
Driller's TD		15990				Driller's Log

If no show of oil, gas or water, explain why: No show of water on Mudlog or MWD log

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See Attachment	Name See Attachment	See Attachment	See Attachment
	Address		
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Driller		Well Operator's Signature		DEP USE ONLY	
Name See Attachment	Rig	 Printed Name / Title: Jon Hinson / Sr. Drilling Engineer Date: 05/07/2025		Reviewed by:	
Address				Comments:	
City - State - Zip					
Phone					



API# 37-125-29187-00-00

Well Service Companies

CASING SOURCE:

B&L Pipeco
20465 State Highway 249, Suite 200
Houston, TX 77070
1-800-927-4732
Surface, Coal Protective, Intermediate, and Production

CEMENTING COMPANY:

NexTier Completion Solutions
3990 Rogerdale Road
Houston, TX 77042
713-325-6000
Surface, Coal Protective, Intermediate

Schlumberger Technology Corporation
PO Box 732149
Dallas, TX 75373-2149
NAMremittance@slb.com
Production

DRILLER:

Falcon Drilling – Falcon Rig 26
102 Broadway Street Suite 300
Carnegie, PA 15106
740-349-8131
From 0' to 7,056'

Patterson UTI Drilling Co. LLC - 876
10713 W. Sam Houston Parkway N, Suite 800
Houston, Texas 77064
Fax: 281-766-7176
From 7,056' to 15,990'

LOGGING COMPANY:

Schlumberger Technology Corporation
PO Box 732149
Dallas, TX 75373-2149
NAMremittance@slb.com

Total Directional Services, LLC
PO Box 831
Windsor, CO 80550
970-686-8893

Baker Hughes
PO Box 30105
Dallas, TX 75303-1057
724-743-9212

Computerized Mudlogging Service, LLC
324 Deer Creek Drive
Struthers, OH 44471
330-397-5710

Edge Finance, LLC
33502 TX-249
Pinehurst, TX 77362
713-504-1094



API# 37-125-29187-00-00

Hardware Supplier Company List

CENTRALIZERS:

Summit Casing Equipment
6575 Corporation Parkway
Fort Worth, TX 76126
(877) 860-0969
www.summitcasing.com
Surface, Coal Protective, Intermediate, Production

CENTRALIZER TYPES:

18-5/8" x 22" – Welded Steel Bow Spring
13-3/8" x 17 1/2" – Welded Steel Bow Spring
9-5/8" x 12 1/4" – Welded Steel Bow Spring
5 1/2" x 8.0" – Solid Body Composite

TOE SLEEVES:

RSI CT HPHT Toe/Frac Sleeve
Halliburton
1000 Noble Energy Drive, Suite 400
Canonsburg, PA 15317-5817
724-743-8188
halliburton.com

FLOAT SHOE/LANDING COLLAR:

Hybrid Double Valve Float Shoe & Landing Collar
Innovex Downhole Solutions
1848 Old Route 33
Weston, WV 26452
304-841-0821
www.InnovexDownhole.com

FLOTATION DEVICE:

NCS AirLock Flotation Sub
NCS Multistage
19450 State Highway 249 Suite 200
Houston, TX 77070
281-453-2222



API# 37-125-29187-00-00

DFGW decided by: 6 – Geologist's determination – none observed

Wellbore Conditioning Attachment

Surface:

Pump 80 bbl of fresh water to break circulation. Pumped 25 bbl gel spacer, 10 bbl of defoamer.

Coal Protective:

Pump 136 bbl water, hole did not circ. Run wire line, tag water at 250'. Pump 10 bbl. fresh water, run wire line and tag water @ 250'.

Intermediate:

Pump 127bbl of polished water to clear the pipe, 25 bbl Gel bentonite.

Production:

Circulate 2 bottoms up at 8.0 bpm. *Spacer details in Cement and Gas Migration Controls Attachment below.*

Cement and Gas Migration Controls Attachment

Surface:

Mix and pump 92 bbl (440 sacks) of Class L cement. Displaced cement with 50 bbl of fresh water. Circulated 14 bbl of cement to surface. Float held with 0.5 bbl flow back to truck. Water temperature 33°F, slurry temperature 46°F.

Coal Protective:

Mix and pump 20 bbl (100 sacks) of Class L cement. Mix and pump 5 bbl (28 sacks) cement down back side, wait 1 hr. Mix and pump 5 bbl (28 sx) cement down back side, wait 1 hr. Mix and pump 26 bbl (120 sacks) cement down back side, 1 bbl back to surface. Total cement 66 bbl (300 sacks). Slurry temperature 60°F.

Intermediate:

Mix and pump 132 bbl (605 sacks) Class L gas block cement. Drop plug and displace with 120 bbl of fresh water. Plug landed at 800 psi, bumped to 1570 psi, floats held with 1.0 bbl back to truck. 30 bbl of cement returned to surface. Water temperature 38°F, slurry temperature 48°F, pH 7.

Production:

Schlumberger pumped 110bbl MudPush Express with Surfactant, 153 bbl MudPush Express without surfactant, and 546 bbl Tail Cement (2303 sacks). Displaced plug with 355 bbl of fresh water. Landed plug at 4.2bpm and 2,600psi, bumped pressure to 3,150 psi. Held pressure for 5 minutes, checked floats, released pressure, 4 bbl returned to surface. Floats held. Maintained circulation throughout job, 95 bbl spacer returned to surface. Mix water temperature 58° F, slurry temperature 83° F.



API# 37-125-29187-00-00

Casing and Tubing Attachment: Hardware

Surface:

Run 5 joints of 18 5/8" 87.5# J-55 BTC casing set at 202'. Top of float shoe set at 199'. Ran 5 bow spring centralizers every joint from 158' to 26'.

Coal Protective:

Run 7 full joints 13 3/8" 54.5# J-55 BTC casing set at 277'. Top of float shoe set at 275'. Cement baskets set at 228' and 223'. Ran 6 bow spring centralizers every joint from 233' to 26'.

Intermediate:

Run 39 joints of 9 5/8" 40.0# J-55 LTC casing set at 1,659'. Top of float shoe set at 1,657'. Float collar set at 1,571'. Ran 20 bow spring centralizers every other joint from 1,572 to 27'.

Production:

Run 362 joints of 5 1/2" 20.0# HP P-110 GBCD casing set at 15,977'. Top of float shoe set at 15,973'. (2) centralized pup joints set at 15,942 and 15,906'. Toe sleeves set at 15,938' and 15,902'. Marker joints set at 14,002', and 7,059'. Floatation device set at 7,777'. Ran 252 - 8.0" Solid Body Composite centralizer every full-length joint from 15,859' to 4,835'. Ran a total of 254 centralizers.

RANGE RESOURCES APPALACHIA, LLC

Location: Washington County, PA
 Facility: BIRD RUN 10938 Pad

Slot: Slot #01
 Well: BIRD RUN 10938 1H
 Wellbore: BIRD RUN 10938 1H PWB

Grid System: NAD83 / Lambert Conformal Conic
 North Balance: Grid North
 Scale: True distance
 Coordinates are in feet referenced to Slot
 Contour are in feet
 Created on: 2025-04-10 Database: WA_UNITS_EAST128x24.5m

Location Information			
Facility Name	Grid East (US ft)	Grid North (US ft)	Longitude
BIRD RUN 10938 Pad	1274901.031	341296.783	80°14'5.8400"W
Slot	Local N (ft)	Local E (ft)	Longitude
Slot #01	-51.81	-48.75	80°14'5.7465"W
Patterson 876 (RKB) to Ground level (At Slot Slot #01)			
Mean Sea Level to Ground level (At Slot Slot #01)			
Patterson 876 (RKB) to Mean Sea Level			

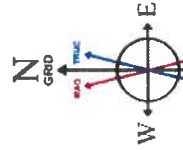
Well Data			
Slot	Well	Wellbore	Wellpath
Slot #01	BIRD RUN 10938 1H	BIRD RUN 10938 1H ANVB	BIRD RUN 10938 1H ANVB Proj: 16016'
Slot #01	BIRD RUN 10938 1H	BIRD RUN 10938 1H PWB	BIRD RUN 10938 1H PWB Rev: 5.0

Gyrodatta MS Gyro <17-1/2"> (50°-227') : 0.18° Inc, 65.00ft MD, 65.00ft TVD, 0.06ft VS
 Total MWD+SuperiorOC IFR1+Sag <12-1/4"> (227')(318'-1582') : 0.11° Inc, 333.00ft MD, 333.00ft TVD, -0.40ft VS

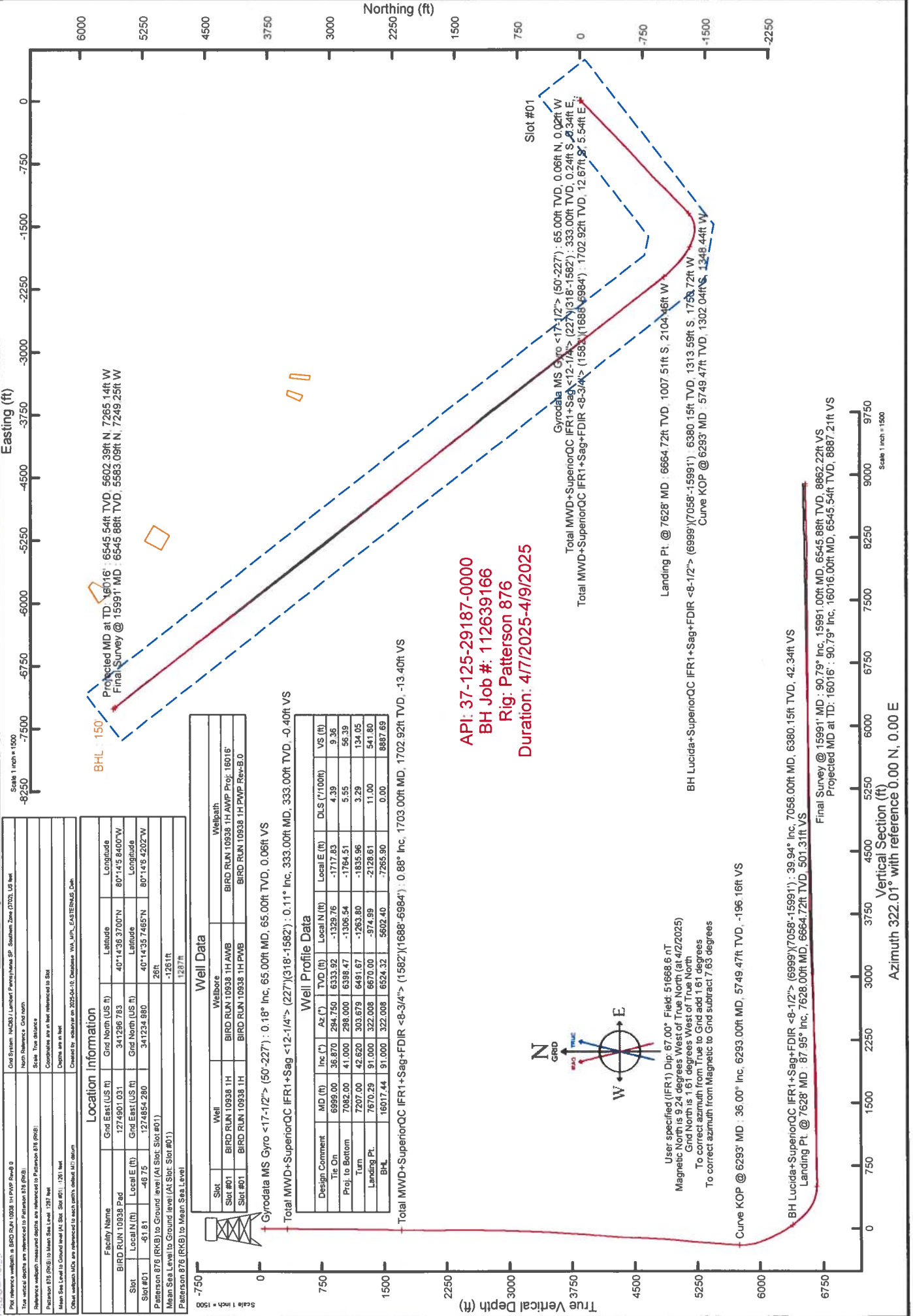
Well Profile Data						
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)
Tie On	6992.00	36.870	284.750	6333.92	-1329.76	-1717.83
Prof. to Bottom	7082.00	41.000	298.000	6398.47	-1306.54	-1764.51
Turn	7207.00	42.620	303.679	6491.67	-1263.80	-1835.96
Landing Pt.	7670.29	91.000	322.008	6670.00	-974.99	-2128.61
BHL	16017.44	91.000	322.008	6524.32	-5602.40	-7285.90

Total MWD+SuperiorOC IFR1+Sag+FDIR <8-3/4"> (1582')(1688'-6984') : 0.88° Inc, 1703.92ft MD, 1702.92ft TVD, -13.40ft VS

API: 37-125-29187-0000
 BH Job #: 112639166
 Rig: Patterson 876
 Duration: 4/7/2025-4/9/2025



User specified (IFR1) Dip: 67.00° Field: 51668.6 nT
 Magnetic North is 9.24 degrees West of True North (at 4/2/2025)
 Grid North is 1.61 degrees West of True North
 To correct azimuth from True to Grid add 1.61 degrees
 To correct azimuth from Magnetic to Grid subtract 7.63 degrees



Vertical Section (ft)
 Azimuth 322.01° with reference 0.00 N, 0.00 E



Actual Wellpath Report

BIRD RUN 10938 1H AWP Proj: 16016'
Page 1 of 10



REFERENCE WELLPATH IDENTIFICATION

Operator	RANGE RESOURCES APPALACHIA, LLC	Well	BIRD RUN 10938 1H
Field	Washington	API	37-125-29187-0000
Facility	BIRD RUN 10938 Pad	Wellbore	BIRD RUN 10938 1H AWB
Slot	Slot #01		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Pennsylvania SP, Southern Zone (3702), US feet	Software System	WeIArchitect® 6.0
North Reference	Grid	User	Edsaryar
Scale	0.999966	Report Generated	4/10/2025 at 9:30:37 PM
Convergence at slot	1.61° West	Database	WA_MPL_EASTERNUS_Defn

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-61.81	-46.75	1274854.28	341234.98	40°14'35.7465"N	80°14'6.4202"W
Facility Reference Pt			1274901.03	341296.78	40°14'36.3700"N	80°14'5.8400"W
Field Reference Pt			0.00	0.00	39°07'14.8609"N	84°41'37.2884"W

WELLPATH DATUM

Calculation method	Minimum curvature	Patterson 876 (RKB) to Facility Vertical Datum	1287.00ft
Horizontal Reference Pt	Slot	Patterson 876 (RKB) to Mean Sea Level	1287.00ft
Vertical Reference Pt	Patterson 876 (RKB)	Patterson 876 (RKB) to Ground Level at Slot (Slot #01)	26.00ft
MD Reference Pt	Patterson 876 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	322.01°



Actual Wellpath Report

BIRD RUN 10938 1H AWP Proj: 16016'
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REFERENCE WELLPATH IDENTIFICATION

Operator	RANGE RESOURCES APPALACHIA, LLC	Well	BIRD RUN 10938 1H
Field	Washington	API	37-125-29187-0000
Facility	BIRD RUN 10938 Pad	Wellbore	BIRD RUN 10938 1H AWB
Slot	Slot #01		

WELLPATH DATA (182 stations) † = interpolated; ‡ = extrapolated station

MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00†	0.000	338.910	0.00	0.00	0.00	0.00	1274854.28	341234.98	40°14'35.7465"N	80°14'6.4202"W	0.00	0.000	0.00	0.00	0.00
26.00	0.000	338.910	26.00	0.00	0.00	0.00	1274854.28	341234.98	40°14'35.7465"N	80°14'6.4202"W	0.00	0.000	0.00	0.00	0.00
65.00	0.180	338.910	65.00	0.06	0.06	-0.02	1274854.26	341235.04	40°14'35.7470"N	80°14'6.4205"W	0.06	338.910	0.46	0.00	0.00
115.00	0.150	29.990	115.00	0.16	0.19	-0.02	1274854.26	341235.17	40°14'35.7483"N	80°14'6.4205"W	0.19	354.630	0.29	-0.06	102.16
165.00	0.190	119.720	165.00	0.11	0.20	0.09	1274854.37	341235.18	40°14'35.7485"N	80°14'6.4192"W	0.22	23.258	0.48	0.08	179.46
215.00	0.210	160.260	215.00	-0.06	0.08	0.19	1274854.47	341235.06	40°14'35.7473"N	80°14'6.4178"W	0.20	68.371	0.28	0.04	81.08
242.00	0.210	155.920	242.00	-0.15	-0.02	0.23	1274854.51	341234.96	40°14'35.7464"N	80°14'6.4173"W	0.23	94.128	0.06	0.00	-16.07
333.00	0.110	147.850	333.00	-0.40	-0.24	0.34	1274854.62	341234.74	40°14'35.7442"N	80°14'6.4157"W	0.42	125.389	0.11	-0.11	-8.87
422.00	0.210	152.490	422.00	-0.65	-0.46	0.46	1274854.74	341234.52	40°14'35.7421"N	80°14'6.4141"W	0.65	134.832	0.11	0.11	5.21
510.00	0.250	155.360	510.00	-0.99	-0.78	0.62	1274854.90	341234.20	40°14'35.7390"N	80°14'6.4120"W	0.99	141.560	0.05	0.05	3.26
598.00	0.260	156.810	598.00	-1.37	-1.14	0.78	1274855.06	341233.84	40°14'35.7355"N	80°14'6.4098"W	1.37	145.661	0.01	0.01	1.65
686.00	0.310	149.510	686.00	-1.80	-1.52	0.97	1274855.25	341233.46	40°14'35.7317"N	80°14'6.4071"W	1.81	147.390	0.07	0.06	-8.30
774.00	0.370	155.280	773.99	-2.31	-1.99	1.21	1274855.49	341232.99	40°14'35.7272"N	80°14'6.4039"W	2.33	148.566	0.08	0.07	6.56
862.00	0.440	164.380	861.99	-2.90	-2.57	1.42	1274855.70	341232.41	40°14'35.7215"N	80°14'6.4009"W	2.94	151.010	0.11	0.08	10.34
950.00	0.510	168.580	949.99	-3.57	-3.28	1.59	1274855.87	341231.70	40°14'35.7145"N	80°14'6.3985"W	3.65	154.097	0.09	0.08	4.77
1038.00	0.580	164.060	1037.98	-4.33	-4.09	1.79	1274856.07	341230.89	40°14'35.7066"N	80°14'6.3956"W	4.47	156.342	0.09	0.08	-5.14
1126.00	0.630	159.920	1125.98	-5.20	-4.97	2.08	1274856.36	341230.01	40°14'35.6979"N	80°14'6.3916"W	5.39	157.298	0.08	0.06	-4.70
1215.00	0.740	161.960	1214.97	-6.21	-5.98	2.43	1274856.71	341229.00	40°14'35.6881"N	80°14'6.3868"W	6.45	157.912	0.13	0.12	2.28
1303.00	0.670	157.940	1302.97	-7.24	-7.00	2.80	1274857.08	341227.98	40°14'35.6781"N	80°14'6.3817"W	7.54	158.219	0.10	-0.08	-4.57
1391.00	0.720	153.000	1390.96	-8.27	-7.97	3.24	1274857.52	341227.01	40°14'35.6687"N	80°14'6.3756"W	8.60	157.867	0.09	0.06	-5.61
1479.00	0.940	149.680	1478.95	-9.53	-9.08	3.86	1274858.14	341225.90	40°14'35.6578"N	80°14'6.3672"W	9.87	156.998	0.26	0.25	-3.77
1567.00	1.080	153.380	1566.94	-11.06	-10.45	4.59	1274858.87	341224.53	40°14'35.6446"N	80°14'6.3573"W	11.41	156.273	0.18	0.16	4.20
1597.00	1.120	153.450	1596.93	-11.63	-10.96	4.85	1274859.13	341224.02	40°14'35.6395"N	80°14'6.3537"W	11.99	156.136	0.13	0.13	0.23
1703.00	0.880	163.810	1702.92	-13.40	-12.67	5.54	1274859.82	341222.31	40°14'35.6229"N	80°14'6.3442"W	13.83	156.385	0.28	-0.23	9.77
1747.00	0.880	156.090	1746.91	-14.04	-13.30	5.77	1274860.05	341221.68	40°14'35.6167"N	80°14'6.3410"W	14.50	156.551	0.27	0.00	-17.55
1835.00	2.330	220.930	1834.88	-15.04	-15.27	4.87	1274860.15	341219.71	40°14'35.5970"N	80°14'6.3519"W	16.03	162.306	2.40	1.65	73.68
1923.00	2.820	226.320	1922.79	-15.60	-18.12	2.14	1274860.42	341216.86	40°14'35.5881"N	80°14'6.3861"W	18.25	173.279	0.62	0.56	6.12
2011.00	2.800	224.150	2010.68	-16.10	-21.16	-0.93	1274853.35	341213.82	40°14'35.5372"N	80°14'6.4245"W	21.18	182.510	0.12	-0.02	-2.47
2100.00	2.790	223.130	2099.58	-16.74	-24.30	-3.92	1274850.36	341210.68	40°14'35.5054"N	80°14'6.4620"W	24.61	189.170	0.06	-0.01	-1.15
2178.00	4.100	243.380	2177.44	-16.48	-26.93	-7.71	1274846.57	341208.05	40°14'35.4783"N	80°14'6.5099"W	28.02	195.981	2.27	1.68	25.96



Actual Wellpath Report

BIRD RUN 10938 1H AWP Proj: 16016'

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REFERENCE WELLPATH IDENTIFICATION

Operator	RANGE RESOURCES APPALACHIA, LLC	Well	BIRD RUN 10938 1H
Field	Washington	API	37-125-29187-0000
Facility	BIRD RUN 10938 Pad	Wellbore	BIRD RUN 10938 1H AWB
Slot	Slot #01		

WELLPATH DATA (182 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]
2266.00	3.970	239.460	2265.22	-15.46	-29.89	-13.15	1274841.13	341205.09	40°14'35.4476"N	80°14'16.5799"W	32.66	203.745	0.35	-0.15	-4.45
2354.00	3.890	237.730	2353.01	-14.77	-33.03	-18.30	1274835.98	341201.95	40°14'35.4151"N	80°14'16.6441"W	37.76	208.993	0.16	-0.09	-1.97
2443.00	3.790	236.530	2441.81	-14.24	-36.27	-23.30	1274830.98	341198.71	40°14'35.3818"N	80°14'16.7075"W	43.11	212.723	0.14	-0.11	-1.35
2531.00	3.610	232.150	2529.63	-14.00	-39.57	-27.92	1274826.36	341195.41	40°14'35.3479"N	80°14'16.7657"W	48.43	215.203	0.38	-0.20	-4.98
2619.00	5.040	222.970	2617.38	-14.60	-44.10	-32.74	1274821.54	341190.88	40°14'35.3018"N	80°14'16.8263"W	54.92	216.591	1.80	1.62	-10.43
2707.00	6.700	223.430	2704.91	-15.98	-50.66	-38.90	1274815.38	341184.33	40°14'35.2353"N	80°14'16.9033"W	63.87	217.524	1.89	1.89	0.52
2795.00	8.220	224.550	2792.17	-17.56	-58.87	-46.85	1274807.47	341176.11	40°14'35.1520"N	80°14'17.0028"W	75.23	218.513	1.74	1.73	1.27
2883.00	10.230	225.270	2879.02	-19.29	-68.85	-56.81	1274797.47	341166.13	40°14'35.0506"N	80°14'17.1276"W	89.26	219.528	2.29	2.28	0.82
2971.00	12.240	225.770	2965.33	-21.22	-80.86	-69.05	1274785.23	341154.12	40°14'34.9286"N	80°14'17.2810"W	106.33	220.496	2.29	2.28	0.57
3059.00	14.270	224.330	3050.98	-23.69	-95.13	-83.31	1274770.97	341139.86	40°14'34.7837"N	80°14'17.4597"W	126.45	221.213	2.34	2.31	-1.64
3147.00	16.150	224.770	3135.90	-26.68	-111.57	-99.51	1274754.77	341123.41	40°14'34.6167"N	80°14'17.6625"W	149.51	221.730	2.14	2.14	0.50
3235.00	18.260	226.150	3219.96	-29.63	-129.82	-118.08	1274736.21	341105.17	40°14'34.4313"N	80°14'17.8952"W	175.48	222.289	2.44	2.40	1.57
3324.00	20.470	225.650	3303.92	-32.78	-150.36	-139.26	1274715.02	341084.63	40°14'34.2225"N	80°14'18.1608"W	204.94	222.807	2.49	2.48	-0.56
3412.00	22.760	227.160	3385.72	-35.92	-172.69	-162.75	1274691.53	341062.30	40°14'33.9954"N	80°14'18.4555"W	237.30	223.303	2.68	2.60	1.72
3491.00	24.410	226.230	3458.12	-38.86	-194.38	-185.75	1274668.54	341040.61	40°14'33.7748"N	80°14'18.7440"W	268.86	223.700	2.14	2.09	-1.18
3579.00	26.470	224.310	3537.59	-43.32	-220.99	-212.58	1274641.71	341014.00	40°14'33.5044"N	80°14'19.0803"W	306.64	223.889	2.52	2.34	-2.18
3667.00	28.520	224.830	3615.64	-48.57	-249.93	-241.09	1274613.19	340985.06	40°14'33.2107"N	80°14'19.4373"W	347.26	223.969	2.35	2.33	0.59
3755.00	30.170	226.490	3692.35	-53.33	-280.05	-271.95	1274582.34	340954.94	40°14'32.9045"N	80°14'19.8241"W	390.36	224.159	2.09	1.87	1.89
3843.00	31.660	225.860	3767.85	-57.92	-311.36	-304.56	1274549.73	340923.63	40°14'32.5862"N	80°14'10.2332"W	435.55	224.368	1.73	1.69	-0.69
3931.00	33.330	226.440	3842.07	-62.73	-344.10	-338.67	1274515.63	340890.89	40°14'32.2533"N	80°14'10.6609"W	482.80	224.544	1.93	1.90	0.64
4020.00	35.480	226.540	3915.49	-67.57	-378.72	-375.14	1274479.16	340856.28	40°14'31.9012"N	80°14'11.1184"W	533.06	224.728	2.42	2.42	0.11
4108.00	35.920	224.650	3986.96	-73.31	-414.65	-411.82	1274442.48	340820.35	40°14'31.5361"N	80°14'11.5782"W	584.40	224.804	1.35	0.50	-2.15
4196.00	35.700	227.520	4058.33	-78.63	-450.35	-448.90	1274405.40	340784.64	40°14'31.1730"N	80°14'12.0432"W	635.87	224.907	1.92	-0.25	3.26
4284.00	36.030	225.560	4129.64	-83.54	-485.82	-486.31	1274367.99	340749.18	40°14'30.8123"N	80°14'12.5126"W	687.40	225.029	1.36	0.37	-2.23
4372.00	37.100	226.430	4200.32	-89.03	-522.23	-524.02	1274330.28	340712.77	40°14'30.4421"N	80°14'12.9855"W	739.81	225.098	1.35	1.22	0.99
4460.00	37.130	224.660	4270.50	-95.01	-559.42	-561.92	1274292.38	340675.58	40°14'30.0643"N	80°14'13.4605"W	792.91	225.128	1.21	0.03	-2.01
4549.00	36.580	227.770	4341.72	-100.41	-596.35	-600.44	1274253.86	340638.65	40°14'29.6887"N	80°14'13.9436"W	846.27	225.196	2.18	-0.62	3.49
4637.00	36.070	229.470	4412.62	-103.50	-630.81	-639.55	1274214.75	340604.90	40°14'29.3374"N	80°14'14.4352"W	898.30	225.394	1.28	-0.58	1.93
4725.00	35.790	227.280	4483.88	-106.77	-665.10	-678.15	1274176.16	340569.99	40°14'28.9879"N	80°14'14.9203"W	949.87	225.556	1.49	-0.32	-2.49
4803.00	35.320	229.610	4547.34	-109.59	-695.19	-712.08	1274142.23	340539.81	40°14'28.6813"N	80°14'15.3467"W	995.16	225.688	1.84	-0.60	2.99



Actual Wellpath Report

BIRD RUN 10938 1H AWP Proj: 16016'

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REFERENCE WELLPATH IDENTIFICATION

Operator	RANGE RESOURCES APPALACHIA, LLC	Well	BIRD RUN 10938 1H
Field	Washington	API	37-125-29187-0000
Facility	BIRD RUN 10938 Pad	Wellbore	BIRD RUN 10938 1H AWB
Slot	Slot #01		

WELLPATH DATA (182 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]
4892.00	34.720	227.200	4620.23	-112.79	-729.08	-750.27	1274104.03	340505.92	40°14'28.3359"N	80°14'15.8267"W	1046.17	225.821	1.69	-0.67	-2.71
4981.00	35.990	227.340	4693.08	-117.02	-763.77	-787.82	1274086.49	340471.24	40°14'27.9828"N	80°14'16.2981"W	1097.27	225.888	0.76	0.75	0.16
5069.00	36.720	228.330	4764.23	-120.78	-798.53	-826.21	1274028.10	340436.48	40°14'27.6288"N	80°14'16.7804"W	1149.03	225.976	1.65	1.51	1.13
5157.00	38.800	228.830	4833.80	-124.00	-834.17	-866.62	1273987.69	340400.84	40°14'27.2654"N	80°14'17.2883"W	1202.86	226.093	2.39	2.36	0.57
5245.00	38.800	226.670	4902.38	-128.09	-871.24	-907.44	1273946.88	340363.77	40°14'26.8879"N	80°14'17.8009"W	1257.98	226.166	1.54	0.00	-2.45
5333.00	38.630	224.730	4971.05	-134.14	-909.68	-946.82	1273907.49	340325.33	40°14'26.4973"N	80°14'18.2947"W	1313.01	226.146	1.39	-0.18	-2.20
5421.00	36.050	224.450	5041.00	-141.03	-947.68	-984.29	1273874.02	340287.33	40°14'26.114"N	80°14'18.7639"W	1366.36	226.086	2.94	-2.93	-0.32
5510.00	35.970	222.480	5113.00	-148.80	-985.66	-1020.29	1273834.03	340249.36	40°14'25.7263"N	80°14'19.2140"W	1418.63	225.983	1.30	-0.09	-2.21
5598.00	35.300	224.970	5184.53	-156.20	-1022.71	-1055.71	1273798.61	340212.31	40°14'25.3504"N	80°14'19.6571"W	1469.85	225.910	1.82	-0.76	2.83
5685.00	33.870	226.750	5256.15	-161.50	-1057.11	-1091.14	1273763.18	340177.91	40°14'25.0008"N	80°14'20.1013"W	1519.23	225.908	2.01	-1.64	2.05
5773.00	34.160	226.580	5329.09	-166.09	-1090.89	-1126.94	1273727.38	340144.13	40°14'24.6571"N	80°14'20.5505"W	1568.45	225.931	0.35	0.33	-0.19
5862.00	35.850	225.270	5401.99	-171.51	-1126.41	-1163.61	1273690.71	340108.61	40°14'24.2960"N	80°14'21.0103"W	1619.50	225.931	2.08	1.90	-1.47
5949.00	36.210	226.590	5472.35	-176.93	-1162.00	-1200.38	1273653.94	340073.02	40°14'23.9343"N	80°14'21.4713"W	1670.67	225.931	0.98	1670.67	1.52
6037.00	36.150	225.190	5543.38	-182.47	-1198.15	-1237.68	1273616.65	340036.87	40°14'23.5667"N	80°14'21.9389"W	1722.62	225.930	0.94	-0.07	-1.59
6116.00	36.370	226.430	5607.08	-187.51	-1230.72	-1271.18	1273583.15	340004.30	40°14'23.2357"N	80°14'22.3589"W	1769.34	225.926	0.97	0.28	1.57
6204.00	36.710	227.870	5677.79	-191.95	-1266.35	-1309.59	1273544.74	339968.68	40°14'22.8731"N	80°14'22.8410"W	1821.72	225.962	1.05	0.39	1.64
6293.00	36.000	226.980	5749.47	-196.16	-1302.04	-1348.44	1273505.89	339932.99	40°14'22.5097"N	80°14'23.3289"W	1874.46	226.003	0.99	-0.80	-1.00
6381.00	35.090	237.730	5821.14	-195.91	-1333.22	-1388.78	1273465.55	339901.81	40°14'22.1905"N	80°14'23.8374"W	1925.14	226.169	7.17	-1.03	12.22
6469.00	35.280	246.510	5893.11	-187.02	-1356.87	-1433.50	1273420.83	339878.16	40°14'21.9444"N	80°14'24.4053"W	1973.83	226.573	5.75	0.22	9.98
6557.00	33.700	259.510	5965.74	-169.36	-1371.46	-1480.88	1273373.45	339863.57	40°14'21.7870"N	80°14'25.0107"W	2018.40	227.197	8.54	-1.80	14.77
6646.00	33.080	270.110	6040.11	-142.95	-1375.92	-1529.49	1273324.84	339859.11	40°14'21.7295"N	80°14'25.6357"W	2057.30	228.026	6.58	-0.70	11.91
6734.00	33.380	276.910	6113.75	-111.03	-1372.96	-1577.56	1273276.78	339862.07	40°14'21.7453"N	80°14'26.2563"W	2091.34	228.967	4.25	0.34	7.73
6822.00	31.990	285.300	6187.85	-75.23	-1363.89	-1624.10	1273230.24	339871.14	40°14'21.8219"N	80°14'26.8595"W	2120.82	229.977	5.38	-1.58	9.53
6910.00	34.310	289.670	6261.53	-35.58	-1349.38	-1669.95	1273184.39	339885.64	40°14'21.9524"N	80°14'27.4558"W	2146.99	231.060	3.78	2.64	4.97
6999.00	36.870	294.750	6333.92	9.36	-1329.76	-1717.83	1273136.51	339905.27	40°14'22.1330"N	80°14'28.0801"W	2172.37	232.257	4.39	2.86	5.71
7058.00	39.940	297.520	6380.15	42.34	-1313.59	-1750.72	1273103.63	339921.44	40°14'22.2835"N	80°14'28.5098"W	2188.73	233.119	5.96	5.20	4.69
7153.00	42.550	303.730	6451.60	100.63	-1281.64	-1804.51	1273049.84	339953.38	40°14'22.5841"N	80°14'29.2148"W	2213.33	234.616	5.11	2.75	6.54
7248.00	47.140	308.950	6518.96	165.10	-1241.88	-1858.34	1272996.00	339993.14	40°14'22.9618"N	80°14'29.9232"W	2235.11	236.246	6.19	4.83	5.49
7343.00	53.920	308.620	6579.32	236.48	-1195.88	-1915.40	1272938.95	340039.15	40°14'23.4003"N	80°14'30.6754"W	2268.07	238.021	7.14	7.14	-0.14
7438.00	66.720	312.810	6626.27	317.29	-1141.92	-1977.60	1272876.76	340093.10	40°14'23.9160"N	80°14'31.4967"W	2283.61	239.997	13.96	13.47	4.20



Actual Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION

Operator	RANGE RESOURCES APPALACHIA, LLC	Well	BIRD RUN 10938 1H
Field	Washington	API	37-125-29187-0000
Facility	BIRD RUN 10938 Pad	Wellbore	BIRD RUN 10938 1H AWB
Slot	Slot #01		

WELLPATH DATA (182 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]
7533.00	79.180	316.660	6654.08	407.20	-1078.06	-2041.90	1272812.45	340156.96	40°14'24.5288"N	80°14'32.3488"W	2309.02	242.167	13.67	13.12	4.09
7628.00	87.950	320.180	6664.72	501.31	-1007.51	-2104.46	1272749.89	340227.51	40°14'25.2083"N	80°14'33.1809"W	2333.20	244.417	9.94	9.23	3.71
7723.00	90.720	322.180	6665.83	596.28	-933.51	-2164.00	1272690.35	340301.50	40°14'25.9227"N	80°14'33.9753"W	2356.77	246.666	3.60	2.92	2.11
7818.00	90.800	322.620	6664.57	691.27	-858.25	-2221.96	1272632.40	340376.76	40°14'26.6499"N	80°14'34.7498"W	2381.95	248.881	0.47	0.08	0.46
7913.00	90.870	322.450	6663.18	786.25	-782.85	-2279.74	1272574.62	340452.15	40°14'27.3786"N	80°14'35.5220"W	2410.41	251.048	0.19	0.07	-0.18
8008.00	90.930	322.300	6661.69	881.24	-707.62	-2337.73	1272516.63	340527.38	40°14'28.1055"N	80°14'36.2969"W	2442.48	253.159	0.17	0.06	-0.16
8103.00	90.780	322.370	6660.27	976.23	-632.43	-2395.77	1272458.59	340602.58	40°14'28.8321"N	80°14'37.0724"W	2477.84	255.213	0.17	-0.16	0.07
8197.00	89.890	322.240	6659.72	1070.22	-558.05	-2453.25	1272401.12	340676.95	40°14'29.5508"N	80°14'37.8403"W	2515.92	257.185	0.96	-0.95	-0.14
8292.00	89.680	321.930	6660.08	1165.22	-483.10	-2511.63	1272342.75	340751.90	40°14'30.2748"N	80°14'38.6201"W	2557.66	259.112	0.39	-0.22	-0.33
8387.00	89.830	322.100	6660.49	1260.22	-408.23	-2570.09	1272284.28	340826.77	40°14'30.9981"N	80°14'39.4010"W	2602.31	260.975	0.24	0.16	0.18
8482.00	89.800	322.280	6660.79	1355.22	-333.17	-2628.33	1272226.04	340901.82	40°14'31.7232"N	80°14'40.1791"W	2649.36	262.776	0.19	-0.03	0.19
8577.00	89.890	322.700	6661.05	1450.22	-257.81	-2686.18	1272168.20	340977.17	40°14'32.4515"N	80°14'40.9521"W	2698.52	264.518	0.45	0.09	0.44
8672.00	89.770	322.070	6661.33	1545.22	-182.56	-2744.16	1272110.22	341052.42	40°14'33.1786"N	80°14'41.7270"W	2750.23	266.194	0.68	-0.13	-0.66
8767.00	90.880	322.370	6660.79	1640.21	-107.48	-2802.36	1272052.02	341127.50	40°14'33.9041"N	80°14'42.5045"W	2804.42	267.804	1.21	1.17	0.32
8862.00	91.800	322.220	6658.57	1735.18	-32.34	-2860.44	1271993.94	341202.64	40°14'34.6301"N	80°14'43.2806"W	2860.63	269.352	0.98	0.97	-0.16
8957.00	91.590	322.270	6655.76	1830.14	42.74	-2918.58	1271935.80	341277.72	40°14'35.3554"N	80°14'44.0574"W	2918.90	270.839	0.23	-0.22	0.05
9052.00	91.400	323.140	6653.28	1925.10	118.29	-2976.13	1271878.26	341353.26	40°14'36.0856"N	80°14'44.8267"W	2978.48	272.276	0.94	-0.20	0.92
9147.00	91.890	322.910	6650.55	2020.05	194.15	-3033.24	1271821.15	341429.12	40°14'36.8191"N	80°14'45.5906"W	3039.45	273.662	0.57	0.52	-0.24
9242.00	91.740	321.470	6647.55	2115.00	269.16	-3091.45	1271762.94	341504.13	40°14'37.5438"N	80°14'46.3683"W	3103.15	274.976	1.52	-0.16	-1.52
9337.00	92.140	322.890	6644.33	2209.94	344.16	-3149.67	1271704.72	341579.13	40°14'38.2684"N	80°14'47.1460"W	3168.42	276.236	1.55	0.42	1.49
9432.00	92.170	322.350	6640.76	2304.86	419.60	-3207.30	1271647.09	341654.56	40°14'38.9974"N	80°14'47.9165"W	3234.63	277.453	0.57	0.03	-0.57
9527.00	92.020	322.570	6637.28	2399.80	494.88	-3265.15	1271589.25	341729.84	40°14'39.7249"N	80°14'48.6896"W	3302.44	278.618	0.28	-0.16	0.23
9621.00	92.020	322.410	6633.97	2493.74	569.40	-3322.35	1271532.05	341804.36	40°14'40.4450"N	80°14'49.4541"W	3370.79	279.725	0.17	0.00	-0.17
9716.00	92.020	322.610	6630.62	2588.67	644.73	-3380.13	1271474.27	341879.68	40°14'41.1730"N	80°14'50.2264"W	3441.07	280.799	0.21	0.00	0.21
9812.00	92.170	322.630	6627.11	2684.60	720.96	-3438.37	1271416.03	341955.91	40°14'41.9097"N	80°14'51.0050"W	3513.15	281.842	0.16	0.16	0.02
9906.00	91.990	322.380	6623.70	2778.54	795.49	-3495.55	1271358.85	342030.44	40°14'42.6300"N	80°14'51.7693"W	3584.93	282.821	0.33	-0.19	-0.27
10001.00	92.050	322.340	6620.35	2873.48	870.67	-3553.53	1271300.87	342105.62	40°14'43.3564"N	80°14'52.5441"W	3658.64	283.767	0.08	0.06	-0.04
10096.00	92.360	323.060	6616.70	2968.40	946.19	-3611.06	1271243.35	342181.13	40°14'44.0862"N	80°14'53.3132"W	3732.96	284.683	0.82	0.33	0.76
10191.00	92.050	322.190	6613.04	3063.32	1021.62	-3668.68	1271185.73	342256.57	40°14'44.8153"N	80°14'54.0835"W	3808.28	285.561	0.97	-0.33	-0.92
10286.00	92.050	321.120	6609.64	3158.26	1096.08	-3727.58	1271126.83	342331.02	40°14'45.5343"N	80°14'54.8700"W	3885.39	286.386	1.13	0.00	-1.13



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Field	Washington	API	37-125-29187-0000
Facility	BIRD RUN 10938 Pad	Wellbore	BIRD RUN 10938 1H AWB
Slot	Slot #01		

WELLPATH DATA (182 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]
10381.00	91.930	320.920	6606.34	3253.19	1169.89	-3787.31	1271067.11	342404.83	40°14'46.2467"N	80°14'55.6668"W	3963.88	287.166	0.25	-0.13	-0.21
10476.00	92.140	318.570	6602.97	3348.05	1242.34	-3848.65	1271005.77	342477.27	40°14'46.9452"N	80°14'56.4840"W	4044.20	287.890	2.48	0.22	-2.47
10571.00	92.300	321.890	6599.29	3442.92	1315.29	-3909.37	1270945.05	342550.22	40°14'47.5488"N	80°14'57.2933"W	4124.70	288.595	3.50	0.17	3.49
10666.00	92.050	321.930	6595.68	3537.85	1390.01	-3967.93	1270886.49	342624.94	40°14'48.3705"N	80°14'58.0755"W	4204.36	289.306	0.27	-0.26	0.04
10761.00	91.830	321.460	6592.47	3632.79	1464.51	-4026.79	1270827.64	342699.44	40°14'49.0900"N	80°14'58.8614"W	4284.83	289.986	0.55	-0.23	-0.49
10855.00	90.910	321.650	6590.22	3726.76	1538.11	-4085.21	1270769.21	342773.04	40°14'49.8007"N	80°14'59.6415"W	4365.18	290.632	1.00	-0.98	0.20
10950.00	90.510	321.200	6589.04	3821.75	1612.38	-4144.44	1270709.98	342847.30	40°14'50.5177"N	80°14'50.4321"W	4447.04	291.258	0.63	-0.42	-0.47
11045.00	90.570	321.350	6588.15	3916.74	1686.49	-4203.87	1270650.56	342921.41	40°14'51.2331"N	80°15'1.2253"W	4529.55	291.859	0.17	0.06	0.16
11140.00	90.880	321.660	6586.95	4011.72	1760.83	-4263.00	1270591.43	342995.75	40°14'51.9510"N	80°15'2.0146"W	4612.34	292.443	0.46	0.33	0.33
11235.00	90.570	321.230	6585.74	4106.71	1835.12	-4322.21	1270532.23	343070.03	40°14'52.6682"N	80°15'2.8050"W	4695.65	293.005	0.56	-0.33	-0.45
11331.00	90.540	321.370	6584.81	4202.70	1910.04	-4382.23	1270472.21	343144.95	40°14'53.3914"N	80°15'3.6061"W	4780.39	293.550	0.15	-0.03	0.15
11425.00	90.690	321.720	6583.81	4296.69	1983.64	-4440.68	1270413.76	343218.55	40°14'54.1022"N	80°15'4.3865"W	4863.59	294.070	0.41	0.16	0.37
11520.00	90.660	321.560	6582.69	4391.68	2058.13	-4499.63	1270354.81	343293.04	40°14'54.8214"N	80°15'5.1737"W	4947.99	294.579	0.17	-0.03	-0.17
11615.00	90.450	321.550	6581.77	4486.68	2132.53	-4558.70	1270295.75	343367.43	40°14'55.5398"N	80°15'5.9623"W	5032.83	295.070	0.22	-0.22	-0.01
11710.00	90.290	321.370	6581.15	4581.67	2206.84	-4617.89	1270236.56	343441.74	40°14'56.2572"N	80°15'6.7525"W	5118.11	295.543	0.25	-0.17	-0.19
11805.00	90.230	321.400	6580.72	4676.66	2281.06	-4677.18	1270177.27	343515.96	40°14'56.9739"N	80°15'7.5439"W	5203.77	295.999	0.07	-0.06	0.03
11900.00	90.390	321.650	6580.21	4771.66	2355.44	-4736.28	1270118.17	343590.33	40°14'57.6920"N	80°15'8.3330"W	5289.65	296.442	0.31	0.17	0.26
11995.00	90.350	321.480	6579.59	4866.65	2429.85	-4795.33	1270059.12	343664.74	40°14'58.4105"N	80°15'9.1215"W	5375.82	296.872	0.18	-0.04	-0.18
12090.00	90.320	321.290	6579.04	4961.64	2504.08	-4854.62	1269999.83	343738.97	40°14'59.1271"N	80°15'9.9129"W	5462.39	297.285	0.20	-0.03	-0.20
12185.00	90.360	321.100	6578.47	5056.63	2578.11	-4914.15	1269940.30	343813.00	40°14'59.8417"N	80°15'10.7075"W	5549.37	297.683	0.20	0.04	-0.20
12280.00	90.360	321.360	6577.88	5151.52	2652.18	-4973.64	1269880.82	343887.06	40°15'0.5567"N	80°15'11.5014"W	5636.59	298.069	0.27	0.00	0.27
12375.00	90.290	320.930	6577.34	5246.61	2726.15	-5033.24	1269821.22	343961.04	40°15'1.2707"N	80°15'12.2968"W	5724.11	298.441	0.46	-0.07	-0.45
12470.00	90.200	321.300	6576.93	5341.60	2800.10	-5092.88	1269761.59	344034.98	40°15'1.9845"N	80°15'13.0926"W	5811.88	298.802	0.40	-0.09	0.39
12565.00	90.360	321.460	6576.47	5436.59	2874.32	-5152.17	1269702.30	344109.20	40°15'2.7010"N	80°15'13.8842"W	5899.71	299.157	0.24	0.17	0.17
12661.00	90.320	321.340	6575.90	5532.58	2949.35	-5212.06	1269642.41	344184.22	40°15'3.4253"N	80°15'14.6837"W	5988.68	299.504	0.13	-0.04	-0.13
12755.00	90.290	321.150	6575.40	5626.57	3022.65	-5270.90	1269583.57	344257.52	40°15'4.1329"N	80°15'15.4691"W	6076.09	299.833	0.20	-0.03	-0.20
12850.00	90.200	321.940	6574.99	5721.57	3097.05	-5329.98	1269524.49	344331.91	40°15'4.8512"N	80°15'16.2579"W	6164.45	300.159	0.84	-0.09	0.83
12945.00	90.390	322.510	6574.50	5816.57	3172.13	-5388.17	1269466.30	344407.00	40°15'5.5766"N	80°15'17.0356"W	6252.59	300.486	0.63	0.20	0.60
13040.00	90.390	322.220	6573.86	5911.56	3247.36	-5446.18	1269408.29	344482.23	40°15'6.3035"N	80°15'17.8110"W	6340.84	300.806	0.31	0.00	-0.31
13135.00	90.360	322.420	6573.23	6006.56	3322.55	-5504.25	1269350.23	344557.41	40°15'7.0299"N	80°15'18.5871"W	6429.32	301.117	0.21	-0.03	0.21



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Slot	Slot #01		

WELLPATH DATA (182 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]
13230.00	90.390	322.330	6572.61	6101.56	3397.79	-5562.25	1269292.23	344632.65	40°15'19.3623"N	80°15'19.3623"W	6517.94	301.419	0.10	0.03	-0.09
13325.00	90.230	322.420	6572.10	6196.55	3473.03	-5620.24	1269234.24	344707.89	40°15'18.4838"N	80°15'20.1375"W	6606.74	301.714	0.19	-0.17	0.09
13420.00	90.290	322.350	6571.67	6291.55	3548.28	-5678.22	1269176.26	344783.13	40°15'19.2109"N	80°15'20.9125"W	6695.71	302.001	0.10	0.06	-0.07
13515.00	90.450	322.370	6571.05	6386.54	3623.51	-5736.24	1269118.25	344858.36	40°15'19.3377"N	80°15'21.6880"W	6784.85	302.280	0.17	0.17	0.02
13610.00	90.320	322.460	6570.42	6481.54	3698.79	-5794.18	1269060.31	344933.64	40°15'19.5651"N	80°15'22.4626"W	6874.12	302.553	0.17	-0.14	0.09
13704.00	90.320	322.430	6569.89	6575.54	3773.31	-5851.48	1269003.01	345008.15	40°15'11.3851"N	80°15'23.2285"W	6962.59	302.816	0.03	0.00	-0.03
13799.00	90.260	322.340	6569.41	6670.53	3848.56	-5909.46	1268945.07	345083.40	40°15'12.1122"N	80°15'24.0036"W	7052.17	303.074	0.11	-0.06	-0.09
13893.00	90.260	322.140	6568.98	6764.53	3922.87	-5967.02	1268887.47	345157.71	40°15'12.8301"N	80°15'24.7288"W	7141.03	303.322	0.21	0.00	-0.21
13988.00	90.260	322.340	6568.55	6859.53	3997.95	-6025.23	1268829.26	345232.78	40°15'13.5553"N	80°15'25.5508"W	7230.98	303.566	0.15	0.00	0.15
14083.00	90.330	322.790	6568.06	6954.52	4073.35	-6083.02	1268771.48	345308.18	40°15'14.2839"N	80°15'26.3234"W	7320.88	303.807	0.54	0.07	0.54
14177.00	90.390	322.380	6567.47	7048.52	4148.01	-6140.13	1268714.37	345382.84	40°15'15.0054"N	80°15'27.0871"W	7409.94	304.041	0.44	0.06	-0.44
14272.00	90.230	322.270	6566.96	7143.51	4223.20	-6198.19	1268656.31	345458.03	40°15'15.7318"N	80°15'27.8631"W	7500.20	304.269	0.20	-0.17	-0.12
14366.00	90.790	323.110	6566.12	7237.50	4297.96	-6255.16	1268599.34	345532.78	40°15'16.4543"N	80°15'28.6250"W	7589.44	304.493	1.07	0.60	0.89
14461.00	90.390	322.700	6565.14	7332.49	4373.73	-6312.46	1268542.05	345608.55	40°15'17.1867"N	80°15'29.3915"W	7679.63	304.717	0.60	-0.42	-0.43
14556.00	90.570	322.970	6564.35	7427.47	4449.43	-6369.95	1268484.66	345684.25	40°15'17.9184"N	80°15'30.1991"W	7769.97	304.935	0.34	0.19	0.28
14650.00	90.320	322.410	6563.62	7521.46	4524.19	-6426.82	1268427.69	345759.01	40°15'18.6403"N	80°15'30.9210"W	7859.54	305.144	0.65	-0.27	0.60
14745.00	90.360	322.440	6563.05	7616.46	4599.49	-6484.75	1268369.76	345834.30	40°15'19.3683"N	80°15'31.6955"W	7950.30	305.347	0.05	0.04	0.03
14839.00	90.260	322.410	6562.55	7710.45	4673.99	-6542.07	1268312.44	345908.80	40°15'20.0882"N	80°15'32.4618"W	8040.20	305.544	0.11	-0.11	-0.03
14934.00	90.360	322.360	6562.03	7805.45	4749.24	-6600.05	1268254.46	345984.05	40°15'20.8152"N	80°15'33.2369"W	8131.17	305.738	0.12	0.11	-0.05
15029.00	90.360	322.350	6561.43	7900.45	4824.46	-6658.08	1268196.44	346059.26	40°15'21.5419"N	80°15'34.0125"W	8222.25	305.927	0.01	0.00	-0.01
15124.00	90.140	322.250	6561.02	7995.45	4899.62	-6716.17	1268138.35	346134.43	40°15'22.2681"N	80°15'34.7890"W	8313.44	306.112	0.25	-0.23	-0.11
15219.00	90.450	322.580	6560.53	8090.44	4974.90	-6774.11	1268080.41	346209.71	40°15'22.9954"N	80°15'35.5637"W	8404.66	306.294	0.48	0.33	0.35
15314.00	90.330	322.480	6559.88	8185.44	5050.30	-6831.90	1268022.62	346285.10	40°15'23.7240"N	80°15'36.3364"W	8495.91	306.473	0.16	-0.13	-0.11
15408.00	91.400	322.490	6558.47	8279.42	5124.85	-6889.14	1267965.39	346359.65	40°15'24.4443"N	80°15'37.1017"W	8586.29	306.646	1.14	1.14	0.01
15503.00	91.340	322.640	6556.19	8374.39	5200.26	-6946.87	1267907.66	346435.06	40°15'25.1730"N	80°15'37.8736"W	8677.66	306.818	0.17	-0.06	0.16
15598.00	91.280	322.350	6554.02	8469.36	5275.61	-7004.69	1267849.84	346510.40	40°15'25.9010"N	80°15'38.6468"W	8769.14	306.985	0.31	-0.06	-0.31
15692.00	91.060	320.560	6552.10	8563.33	5349.12	-7063.24	1267791.29	346583.91	40°15'26.6107"N	80°15'39.4286"W	8860.16	307.137	1.90	-0.23	-1.88
15787.00	91.190	320.650	6550.24	8658.29	5422.53	-7123.51	1267731.03	346657.32	40°15'27.3189"N	80°15'40.2325"W	8952.55	307.279	0.16	0.14	0.07
15882.00	91.400	323.040	6548.09	8753.25	5497.21	-7182.18	1267672.36	346731.99	40°15'28.0401"N	80°15'41.0164"W	9044.50	307.430	2.52	0.22	2.52
15977.00	91.000	321.300	6546.10	8848.23	5572.22	-7240.43	1267614.11	346807.00	40°15'28.7647"N	80°15'41.7949"W	9136.38	307.582	1.88	-0.42	-1.83



Actual Wellpath Report

BIRD RUN 10938 1H AWP Proj: 16016'
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REFERENCE WELLPATH IDENTIFICATION	
Operator	RANGE RESOURCES APPALACHIA, LLC
Field	Washington
Facility	BIRD RUN 10938 Pad
Slot	Slot #01
Well	BIRD RUN 10938 1H
API	37-125-29187-0000
Wellbore	BIRD RUN 10938 1H AWB

WELLPATH DATA (182 stations) † = interpolated, ‡ = extrapolated station															
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert.Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [P/100ft]	Build Rate [P/100ft]	Turn Rate [P/100ft]
15991.00	90.790	320.550	6545.88	8862.22	5583.09	-7249.25	1267605.29	346817.87	40°15'28.8696"N	80°15'41.9127"W	9150.01	307.602	5.56	-1.50	-5.36
16016.00‡	90.790	320.550	6545.54	8887.21	5602.39	-7265.14	1267589.40	346837.17	40°15'29.0558"N	80°15'42.1245"W	9174.37	307.637	0.00	0.00	0.00

HOLE & CASING SECTIONS - Ref Wellbore: BIRD RUN 10938 1H AWB Ref Wellpath: BIRD RUN 10938 1H AWP Proj: 16016'											
String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]	End E/W [ft]	End E/W [ft]
26in Conductor	26.00	67.00	41.00	26.00	67.00	0.00	0.00	0.00	0.00	0.06	-0.02
24in Open Hole	67.00	240.00	173.00	67.00	240.00	0.06	-0.02	-0.01	-0.02	0.06	0.22
18.625in Casing Surface	26.00	220.00	194.00	26.00	220.00	0.00	0.00	0.00	0.00	0.06	0.20
17.5in Open Hole	240.00	316.00	76.00	240.00	316.00	-0.01	0.22	-0.21	0.22	-0.21	0.32
13.375in Casing	26.00	296.00	270.00	26.00	296.00	0.00	0.00	-0.17	0.00	-0.17	0.30
12.25in Open Hole	316.00	1700.00	1384.00	316.00	1699.92	-0.21	0.32	-12.63	0.32	-12.63	5.53
9.625in Casing Intermediate	26.00	1685.00	1659.00	26.00	1684.92	0.00	0.00	-12.40	0.00	-12.40	5.46
8.75in Open Hole	1700.00	7082.00	5382.00	1699.92	6398.46	-12.63	5.53	-1306.23	5.53	-1306.23	-1764.36
8.5in Open Hole	7082.00	16016.00	8934.00	6398.46	6545.54	-1306.23	-1764.36	5602.39	-1764.36	5602.39	-7265.14
5.5in Casing Production	26.00	16016.00	15990.00	26.00	6545.54	0.00	0.00	5602.39	0.00	5602.39	-7265.14

Actual Wellpath Report

BIRD RUN 10938 1H AWP Proj: 16016'

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REFERENCE WELLPATH IDENTIFICATION

Operator	RANGE RESOURCES APPALACHIA, LLC	Well	BIRD RUN 10938 1H
Field	Washington	API	37-125-29187-0000
Facility	BIRD RUN 10938 Pad	Wellbore	BIRD RUN 10938 1H AWB
Slot	Slot #01		

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
BIRD RUN 10938 1H BHL Rev-3	6524.32	5602.40	-7265.90	1267588.64	346837.17	40°15'29.0556"N	80°15'42.1344"W	point
BIRD RUN 10938 1H LP Rev-3	6670.00	-974.99	-2128.61	1272725.75	340260.02	40°14'25.5228"N	80°14'33.5040"W	point

WELLPATH COMPOSITION - Ref Wellbore: BIRD RUN 10938 1H AWB Ref Wellpath: BIRD RUN 10938 1H AWP Proj: 16016'

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
26.00	242.00	Gyrodata 2015 - GC+WIR+DPIPE	01_Gyrodata MS Gyro <17-1/2'> (50'-227')	BIRD RUN 10938 1H AWB	3/14/2025
242.00	1597.00	OWSG MWD rev2 + IFR1 + Sag Correction	02_Total MWD+SuperiorQC IFR1+Sag <12-1/4'> (227')(318'-1582')	BIRD RUN 10938 1H AWB	3/14/2025
1597.00	6999.00	OWSG MWD rev2 + IFR1 + Sag + Multi-Station Correction	03_Total MWD+SuperiorQC IFR1+Sag+FDIR <8-3/4'> (1562')(1688'-6984')	BIRD RUN 10938 1H AWB	3/14/2025
6999.00	16016.00	OWSG MWD rev2 + IFR1 + Sag + Multi-Station Correction	04_BH Lucida+SuperiorQC IFR1+Sag+FDIR <8-1/2'> (6999')(7058'-15991')	BIRD RUN 10938 1H AWB	4/2/2025



Actual Wellpath Report

BIRD RUN 10938 1H AWP Proj: 16016'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	RANGE RESOURCES APPALACHIA, LLC	Well	BIRD RUN 10938 1H
Field	Washington	API	37-125-29187-0000
Facility	BIRD RUN 10938 Pad	Wellbore	BIRD RUN 10938 1H AWB
Slot	Slot #01		

COMMENTS
<p>Wellpath general comments API: 37-125-29187-0000 BH Job #: 112639166 Rig: Patterson 876 Duration: 4/7/2025-4/9/2025 Gyrodatta MS Gyro <17-1/2"> (50'-227') Total MWD+SuperiorQC IFR1+Sag <12-1/4"> (227')(318'-1582') Total MWD+SuperiorQC IFR1+Sag+FDIR <8-3/4"> (1582')(1688'-6984') BH Lucida+SuperiorQC IFR1+Sag+FDIR <8-1/2"> (6999')(7058'-15991') Projected MD at TD: 16016'</p>

Teresa Matinko

From: Jason Hicks
Sent: Tuesday, May 13, 2025 7:15 AM
To: Teresa Matinko
Cc: Leagha Courtney; Laura Rusmisel; Melissa Shaughnessy
Subject: Well Record - BIRD RUN 1H
Attachments: WR BIRD RUN 10938 1H Final.pdf

Corrected Bird Run 1H WR attached – This is not an amendment, only a resubmission with the correct survey. Bird Run 2H files were accidentally included in first submission. Thanks!

Good morning,

The well record for the **BIRD RUN 1H** is attached and has been submitted to the DEP via Greenport today; eSubmission confirmation below:



Josh Shapiro, Governor

eSubmission

Submission details:

Submission: Well Record (Unconventional - non-vertical well)
Submitted: 5/13/2025 7:10:40 AM
Status: Submitted
County: Washington
Municipality: Chartiers Township
Region: EP DOGO SWDO Dstr Off
Primary_Facility_Id: 880721
WellAPI: 125-29187
User: HICKSJN
Operator: 60915 - RANGE RESOURCES APPALACHIA LLC

Files attached:

File	Document_Type	Description
WR BIRD RUN 10938 1H Final.pdf	Well Record (Unconventional)	

Thank you,

Jason Hicks
Drilling Engineering Tech II
Office: 724.743.5232 -- Cell: 724.993.7173

Email: jhicks@rangeresources.com

Range Resources-Appalachia, LLC
3000 Town Center Boulevard
Canonsburg, PA 15317
www.rangeresources.com

