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west virginia department of environmental protection

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

Harold D. Ward, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

Wednesday, May 26, 2021  
PERMIT MODIFICATION APPROVAL  
Horizontal 6A / New Drill

HG ENERGY II APPALACHIA, LLC  
5260 DUPONT ROAD

PARKERSBURG, WV 26101

Re: Permit Modification Approval for FLESHER 1212 N-4H  
47-041-05707-00-00

**Pad expansion with in the LOD**

HG ENERGY II APPALACHIA, LLC

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

If there are any questions, please feel free to contact me at (304) 926- 0450.

A handwritten signature in blue ink, appearing to read 'James A. Martin', is positioned above the printed name and title.

James A. Martin  
Chief

Operator's Well Number: FLESHER 1212 N-4H  
Farm Name: JARED D & REBECCA J FLESHER  
U.S. WELL NUMBER: 47-041-05707-00-00  
Horizontal 6A New Drill  
Date Modification Issued: 5/26/2021

Promoting a healthy environment.

05/28/2021

# 1212 Well Site

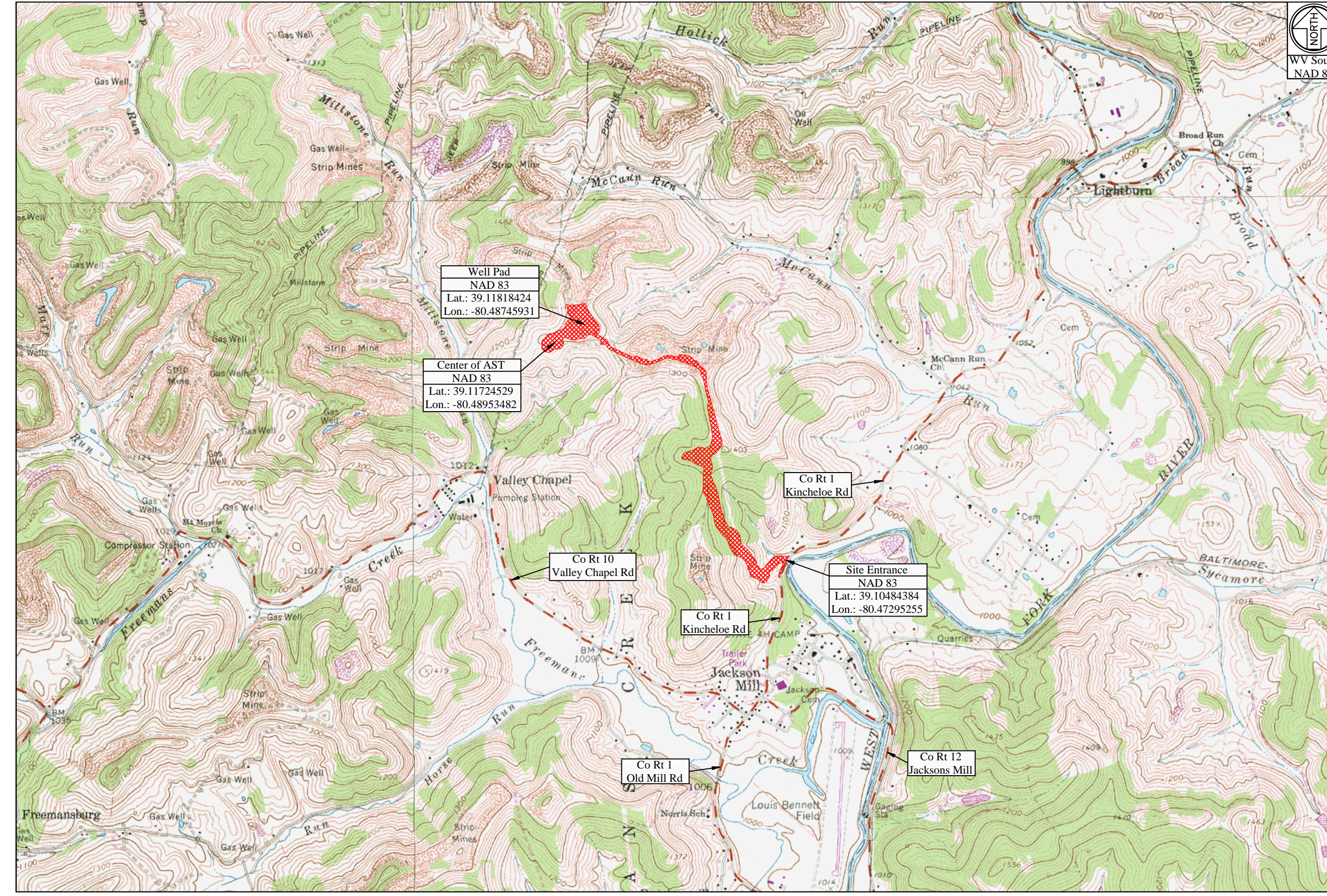
Site Design, Construction Plan, & Erosion and Sediment Control Plans  
 HG Energy LLC  
 Lewis County  
 Freemans Creek District  
 Latitude 39.11818424°  
 Longitude -80.48745931°  
 Middle West Fork River Watershed

**Pertinent Site Information**  
**1212 Well Site**  
 Emergency Number: 304-269-8235  
 Freemans Creek District, Lewis County, WV  
 Watershed: Middle West Fork River Watershed  
 Site 911 Address:  
 HG Energy Contact Number: 304-420-1100



Property Owner Information - 1212 Well Site											
Freemans Creek District - Lewis County											
Owner	TM - Parcel	Well Pad	Staging	Access Road	Topsoil/Excess	Add. Clearing	Total Disturbed				
Mary Jane Bailey	7C-16	0.00	0.00	6.33	1.79	11.59	19.71				
Fred Bailey	6C-46	0.00	0.00	2.01	0.00	2.74	4.75				
Fred Bailey	6C-45	0.00	0.00	1.05	0.00	1.70	2.75				
Jared & Rebecca Flesher	6C-47	4.20	1.91	0.96	0.92	4.52	12.51				
<b>Site Totals (Ac)</b>						4.20	1.91	10.35	2.71	20.55	39.72

## Exhibit A: As-Built Modification



WV State Plane Coordinate System  
 South Zone, NAD 83  
 Elevations Based on NAV88  
 Established by Survey Grade GPS  
 and OPUS Post-Processing

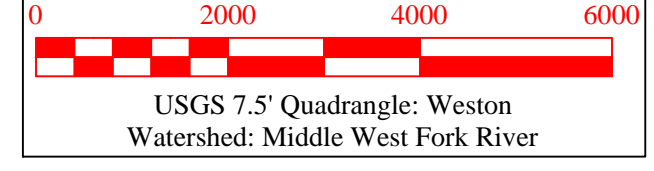
Access Road			
Surface Owner	TM - Parcel	Road Length	Type
Mary Jane Bailey	7C-16	3,712.19'	New Access Road Construction
Fred Bailey	6C-46	2,080.53'	New Access Road Construction
Fred Bailey	6C-45	1,698.38'	New Access Road Construction
Jared & Rebecca Flesher	6C-47	1,415.36'	New Access Road Construction

Disturbed Area	
Well Pad Construction	4.20 Ac
Staging Area Construction	1.91 Ac
Access Road Construction	10.35 Ac
Topsoil/ Excess Material	2.71 Ac
Additional Clearing	20.55 Ac
<b>Total Disturbed Area</b>	<b>39.72 Ac</b>
<b>Additional Information</b>	
Total Wooded Acres Disturbed	12.83 Ac
Total Linear Feet of Access Road	8,907.18'

1212 Well Site Quantities						
Description	Cut (CY)	Fill (CY)	Spoil (CY)	Borrow (CY)	Max. Slope	Length of Slope
NE Well Pad Expansion	299.91	494.06	-	194.15	N/A	N/A
SE Well Pad Expansion	42.66	18.71	23.95	-	N/A	N/A
AST Pad Construction	3,120.55	1,092.91	1,427.64	-	N/A	N/A
ASF Pad Access Road	233.91	173.51	60.10	-	N/A	N/A
Topsoil/Excess Material Stockpile	0.00	1,592.60	-	-	N/A	N/A
<b>Totals</b>	3,696.73	3,971.79	1,511.69	1,786.75	-	-
<b>Total Spoil (CY) =</b>				-275.06	<b>(Excess Spoil Capacity)</b>	

Stream Impact (Linear Feet)					
Stream and Impact Cause	Culvert (LF)	Inlet/Outlet Structures Fill (LF)	Slope Fill (LF)	Const. Disturb. to LOD (LF)	Total Impact (LF)
Watercourse A (Access Road)	45.89	0.00	0.00	19.51	75.40
Watercourse E (Access Road)	0.00	0.00	0.00	35.69	35.69
Watercourse F (Access Road)	85.45	44.65	25.00	8.93	164.03
Watercourse J (Access Road)	0.00	0.00	45.63	42.87	88.50
<b>Total Stream Impacts</b>					<b>363.62</b>

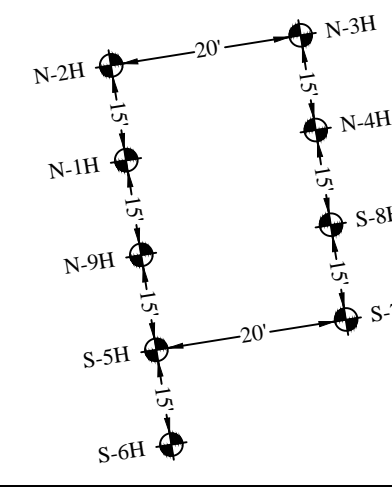
Wetland Impact (Square Feet)			
Wetland (Impact Cause)	Fill (SF)	Const. Disturb. to LOD (SF)	Total Impact (SF)
Wetland B (Access Road)	830.6	0.00	830.6
<b>Total Impacts</b>			<b>830.6</b>
<b>Total Impacts (Acres)</b>			<b>0.0191</b>



**APPROVED WVDEP OOG Modification**  
 5/25/2021

05/28/2021

Site Entrance	Center of Well Pad	Center of Staging Area #1	Center of AST (Impaired Water)
WV-S NAD 83 N: 766922.17 WV-S NAD 83 E: 2118076.53 WV-S NAD 27 N: 766871.74 WV-S NAD 27 E: 2149577.82 Lat. NAD 83: 39.10484384 Lon. NAD 83: -80.47295255 Lat. NAD 27: 39.10475130 Lon. NAD 27: -80.47313842 UTM 17 NAD 83 N: 4528543.52 UTM 17 NAD 83 E: 544570.67	WV-S NAD 83 N: 771758.26 WV-S NAD 83 E: 2113932.67 WV-S NAD 27 N: 771707.90 WV-S NAD 27 E: 2145584.05 Lat. NAD 83: 39.11818424 Lon. NAD 83: -80.48745931 Lat. NAD 27: 39.11809214 Lon. NAD 27: -80.48764556 UTM 17 NAD 83 N: 4330016.79 UTM 17 NAD 83 E: 544307.99 Pad Elev.: 1332.20'	WV-S NAD 83 N: 772062.70 WV-S NAD 83 E: 2113771.82 WV-S NAD 27 N: 772012.34 WV-S NAD 27 E: 2145223.18 Lat. NAD 83: 39.11902245 Lon. NAD 83: -80.48802025 Lat. NAD 27: 39.11893038 Lon. NAD 27: -80.48820547 UTM 17 NAD 83 N: 4330109.53 UTM 17 NAD 83 E: 544258.98 Pad Elev.: 1322.29'	WV-S NAD 83 N: 771413.00 WV-S NAD 83 E: 2113345.64 WV-S NAD 27 N: 772012.34 WV-S NAD 27 E: 2144796.99 Lat. NAD 83: 39.11724529 Lon. NAD 83: -80.48953482 Lat. NAD 27: 39.11753119 Lon. NAD 27: -80.48972002 UTM 17 NAD 83 N: 4329911.58 UTM 17 NAD 83 E: 544129.15 Pad Elev.: 1312.46'



Well Table			
N-1H	N-2H	N-3H	N-4H
WV-S NAD 83 N: 771807.09 WV-S NAD 83 E: 2113871.28 WV-S NAD 27 N: 771756.73 WV-S NAD 27 E: 2145322.63 Lat. NAD 83: 39.11831921 Lon. NAD 83: -80.48767473 Lat. NAD 27: 39.11822711 Lon. NAD 27: -80.48785997 UTM 17 NAD 83 (m) N: 4206112.20 UTM 17 NAD 83 (m) E: 1785722.43	WV-S NAD 83 N: 771821.90 WV-S NAD 83 E: 2113868.90 WV-S NAD 27 N: 771771.54 WV-S NAD 27 E: 2145320.26 Lat. NAD 83: 39.11835992 Lon. NAD 83: -80.4876283 Lat. NAD 27: 39.11827783 Lon. NAD 27: -80.48786807 UTM 17 NAD 83 (m) N: 4206127.01 UTM 17 NAD 83 (m) E: 1785720.05	WV-S NAD 83 N: 771825.86 WV-S NAD 83 E: 2113893.60 WV-S NAD 27 N: 771775.50 WV-S NAD 27 E: 2145344.96 Lat. NAD 83: 39.11837041 Lon. NAD 83: -80.48759570 Lat. NAD 27: 39.11827832 Lon. NAD 27: -80.48778095 UTM 17 NAD 83 (m) N: 4206130.97 UTM 17 NAD 83 (m) E: 1785744.74	WV-S NAD 83 N: 771811.05 WV-S NAD 83 E: 2113895.98 WV-S NAD 27 N: 771760.48 WV-S NAD 27 E: 2145347.34 Lat. NAD 83: 39.11832970 Lon. NAD 83: -80.48758760 Lat. NAD 27: 39.1182761 Lon. NAD 27: -80.48777285 UTM 17 NAD 83 (m) N: 4206116.16 UTM 17 NAD 83 (m) E: 1785747.12

N-5H			
WV-S NAD 83 N: 771777.46 WV-S NAD 83 E: 2113875.97 WV-S NAD 27 N: 771727.10 WV-S NAD 27 E: 2145327.33 Lat. NAD 83: 39.11823781 Lon. NAD 83: -80.48765876 Lat. NAD 27: 39.11814572 Lon. NAD 27: -80.48784401 UTM 17 NAD 83 (m) N: 4206082.59 UTM 17 NAD 83 (m) E: 1785722.12	WV-S NAD 83 N: 771762.65 WV-S NAD 83 E: 2113878.36 WV-S NAD 27 N: 771712.29 WV-S NAD 27 E: 2145325.04 Lat. NAD 83: 39.11819710 Lon. NAD 83: -80.48765064 Lat. NAD 27: 39.11810500 Lon. NAD 27: -80.48783538 UTM 17 NAD 83 (m) N: 4206067.78 UTM 17 NAD 83 (m) E: 1785729.51	WV-S NAD 83 N: 771781.42 WV-S NAD 83 E: 2113900.68 WV-S NAD 27 N: 771731.06 WV-S NAD 27 E: 2145352.04 Lat. NAD 83: 39.11824830 Lon. NAD 83: -80.48757160 Lat. NAD 27: 39.11815621 Lon. NAD 27: -80.48775684 UTM 17 NAD 83 (m) N: 4206086.55 UTM 17 NAD 83 (m) E: 1785751.82	WV-S NAD 83 N: 771796.23 WV-S NAD 83 E: 2113898.33 WV-S NAD 27 N: 771745.87 WV-S NAD 27 E: 2145349.69 Lat. NAD 83: 39.11828899 Lon. NAD 83: -80.4877960 Lat. NAD 27: 39.11818640 Lon. NAD 27: -80.48785197 UTM 17 NAD 83 (m) N: 4206101.35 UTM 17 NAD 83 (m) E: 1785749.47

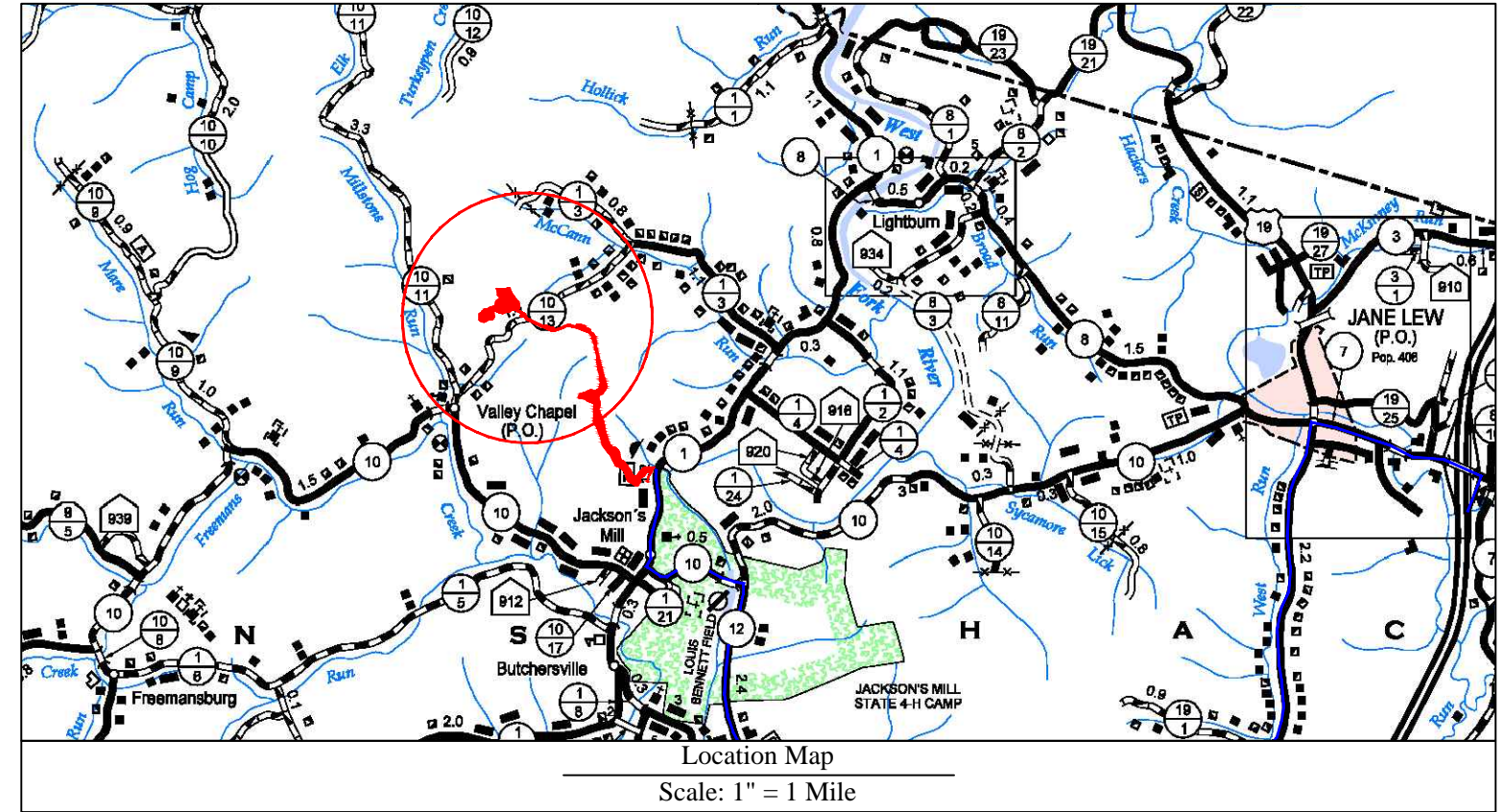
**Project Contacts**

HG Energy LLC	Survey and Engineer
Jared Stemple - Construction Manager 740-336-2477	Kenneth Kelly 304-338-6985 O.H.
	Zachary Summerfield 304-338-6987 O.H.

HG Energy, LLC  
 5260 Dupont Road  
 Parkersburg, WV 26101  
 PH: 304-420-1100  
 Fax: 304-863-3175

**Approach Routes:**

From I-79 North near Jane Lew, WV. Take Exit 105 off of I-79 (Jane Lew). Turn Left onto Co Rt 7 (Hackers Creek Rd). Follow Co Rt 7 for 0.9 mi. Turn Left onto US Rt 19 South. Follow US Rt 19 South for 4.9 mi. Turn Right onto Co Rt 12 (Jacksons Mill Rd). Follow Co Rt 12 for 2.5 mi. Turn Left (across bridge) onto Co Rt 10. Follow Co Rt 10 for 0.5 mi. Turn Right at fire department onto Co Rt 1 (Kincheole Rd). Follow Co Rt 1 for 0.5 mi. The site entrance will be on the Left (Northwest) side of the road.

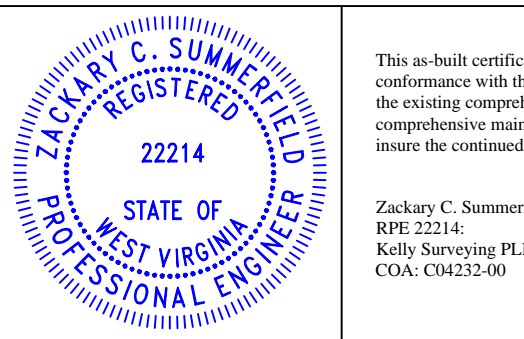


**Well Location Restrictions**

All Pad construction complies with the following restrictions.

- \*250' from an existing well or developed spring used for human or domestic animals.
- \*625' from an occupied dwelling or barn greater than 2,500 SF used for poultry or dairy measured from the center of the pad.
- \*300' from the edge of disturbance to a naturally reproducing trout stream.
- \*1,000' of a surface or ground water intake to a public water supply.

(Well Location Restrictions of WV Code 22-6A-12)



As-Built Certification

This as-built certification certifies that the gas well drilling pad was constructed in reasonable close conformance with the design drawings. It is recommended that this gas well drilling pad be included in the existing comprehensive maintenance and inspection program for gas well drilling pads or that a comprehensive maintenance and inspection program be developed to monitor the pads condition to insure the continued safe operation.

Zachary C. Summerfield  
 RPE 22214  
 Kelly Surveying PLLC  
 COA: 00423-02

Date: 04-16-2021

Sheet	Description
1	Cover Sheet
V1	Schedule of Quantities
N1-N4	Site Notes
2	Pre-Construction Site Conditions
3	Site Soil Map
4	Overall Plan View
5-11	Plan View
12	Cross Sections - Well Pad
13	Cross Sections - Staging Areas
14-18	Cross Sections - Access Road
G1-G2	Geotechnical Exhibit
L1	Landowner Disturbed Area Exhibit
S1	Site Reclamation
M1-M2	Production Exhibit
D1-D2	Erosion and Sediment Control Details
R1	Access Road Details
P1	Pad Details

**Environmental:**

Wetland Delineations as provided by Palustris Environmental dated October 13, 2020

MISS UTILITY OF WEST VIRGINIA  
 1-800-245-4848  
 West Virginia State Law  
 Section XIV, Chapter 24-C requires  
 that you call two business days  
 before  
 you dig in the state of West Virginia.  
 IT'S THE LAW  
 Know what's below.  
 Call before you dig.

HG Energy LLC will obtain an Encroachment Permit (Form MM-109) from the WV Department of Transportation, Division of Highways, prior to the commencement of any construction activities

The WV Mines Website was consulted. Previous mining activities are within the AOI.

WVDEP Website files show that there are active and/or abandoned gas wells within the AOI

Floodplain Conditions	
Do site construction activities take place in a floodplain:	YES
Permit needed from county floodplain coordinator:	YES
Flood Hazard Zone:	AE
HEC-RAS Study completed:	N/A
Floodplain shown on drawings:	YES
FIRM Map (Number(s) for site):	5404IC 0130E
Acres of construction in floodplain:	0.34 Ac

Revision  
 As-Built Modification  
 Date  
 04-16-2021

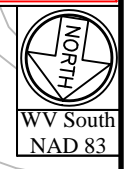


THIS DOCUMENT  
 PREPARED FOR  
 HG ENERGY LLC



Cover Sheet  
**1212 Well Site**  
 Freemans Creek District  
 Lewis County, WV

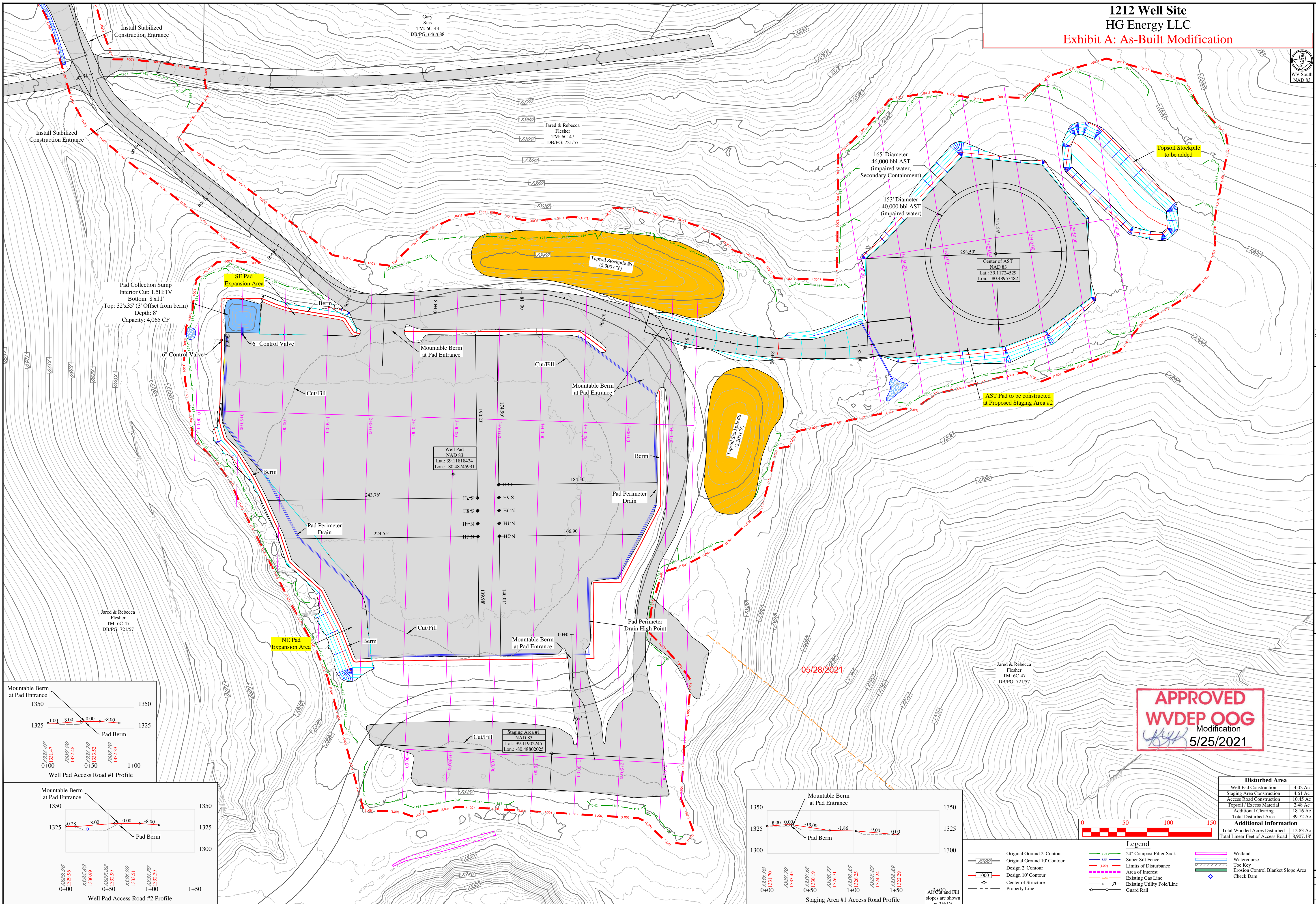
**1212 Well Site**  
**HG Energy LLC**  
**Exhibit A: As-Built Modification**



Gary Sias  
 TM: 6C-43  
 DB: PG: 646/688

Jared & Rebecca  
 Fleisher  
 TM: 6C-47  
 DB: PG: 721/57

Revision  
 As-Built Modification  
 Date  
 04-16-2021



Pad Collection Sump  
 Interior Cut: 1.5H:1V  
 Bottom: 8'x11'  
 Top: 32'x35' (3' Offset from berm)  
 Depth: 8'  
 Capacity: 4,065 CF

Well Pad  
 NAD 83  
 Lat.: 39.11818424  
 Lon.: -80.48745931

Staging Area #1  
 NAD 83  
 Lat.: 39.11902245  
 Lon.: -80.48802025

Center of AST  
 NAD 83  
 Lat.: 39.11724529  
 Lon.: -80.48953482

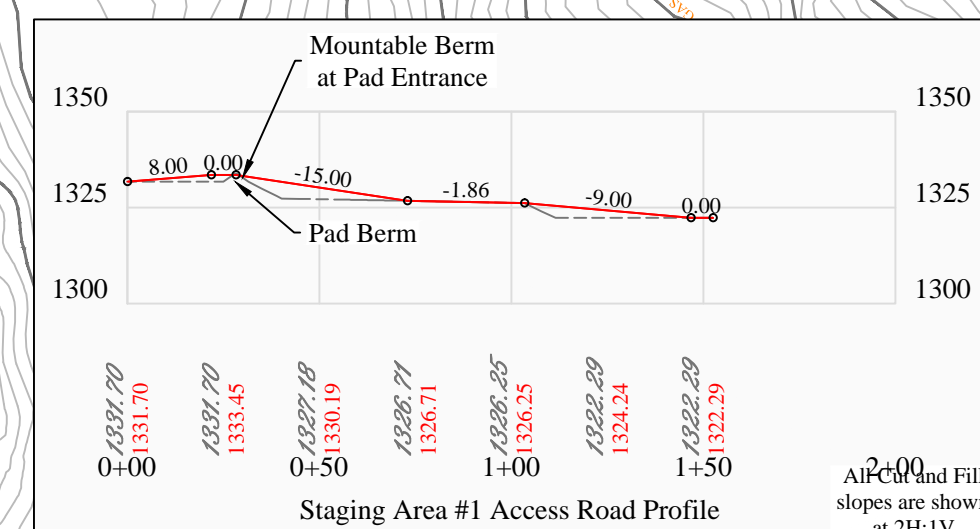
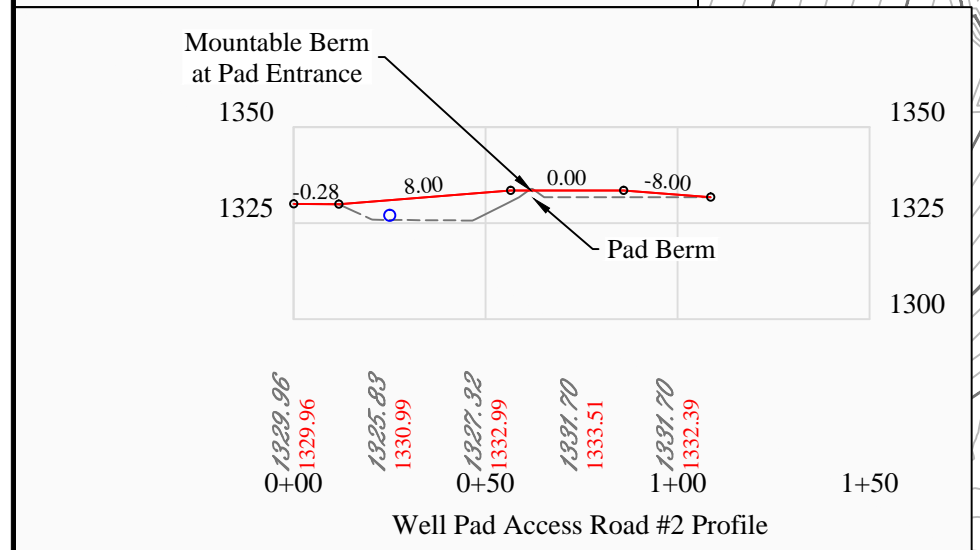
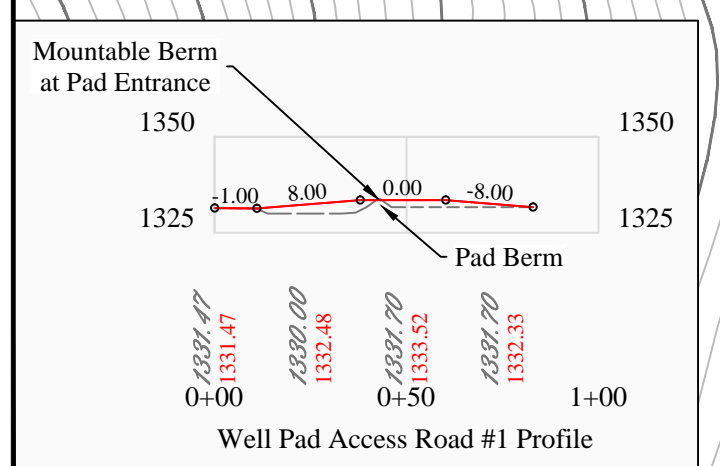
Jared & Rebecca  
 Fleisher  
 TM: 6C-47  
 DB: PG: 721/57

**APPROVED**  
**WVDEP OOG**  
 Modification  
 5/25/2021

Disturbed Area	
Well Pad Construction	4.02 Ac
Staging Area Construction	4.61 Ac
Access Road Construction	10.45 Ac
Topsoil / Excess Material	2.48 Ac
Additional Clearing	18.16 Ac
Total Disturbed Area	39.72 Ac
Additional Information	
Total Wooded Acres Disturbed	12.83 Ac
Total Linear Feet of Access Road	8,907.18'



- Legend**
- Original Ground 2' Contour
  - Original Ground 10' Contour
  - Design 2' Contour
  - Design 10' Contour
  - Center of Structure
  - Property Line
  - 24" Composite Filter Sock
  - Super Silt Fence
  - Limits of Disturbance
  - Area of Interest
  - Existing Gas Line
  - Existing Utility Pole/Line
  - Guard Rail
  - Wetland
  - Watercourse
  - Toe Key
  - Erosion Control Blanket Slope Area
  - Check Dam



THIS DOCUMENT  
 PREPARED FOR  
 HG ENERGY LLC



Site Plan  
**1212 Well Site**  
 Freemans Creek District  
 Lewis County, WV

Date: 04/16/2021  
 Scale: As Shown  
 Designed By: ZS  
 File No.  
 Sheet 11 of 18