WR-35 Rev. 8/23/13

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State of West Virginia

Department of Environmental Protection - Office of Oil and Gas

Well Operator's Report of Well Work

WV Department of

Environmental Protection

| API 47 - 043 - 03471 County LINCO | DLN Distr | tict_DUVAL | |
|---|--|---|--|
| API <u>47</u> - 043 - 03471 County LINCO | FOWLER Field | I/Pool Name G | RIFFITHSVILLE |
| Farm name MCCLURE, ANDY J. & REBECCA | Wel | Number 214 | |
| Operator (as registered with the OOG) H.G. ENERGY L | LC | | |
| Address 5260 DuPONT ROAD City P. | ARKERSBURG | State WV | Zip 26101 |
| As Drilled location NAD 83/UTM Attach an as-dri Top hole Northing 4,231,370 M Landing Point of Curve Northing 4,231,250 M Bottom Hole Northing 4,231,250 M Elevation (ft) 895' GL Type of Wel Permit Type Deviated Horizontal Horiz Type of Operation Convert Deepen Drill Well Type Brine Disposal CBM Gas Oil S Type of Completion Single Multiple Fluids Pro Drilled with Cable Rotary Drilling Media Surface hole Air Mud Fresh Water Br | Easting Easting Easting Easting New Existing Contal 6A Vertical Plug Back Redrilling Cecondary Recovery Solution Coduced Brine Gas Vater Intermediate hole | Type of Report Depth Type Rework on Mining Sto | □Interim ■Final □ Deep ■ Shallow □ Stimulate orage □ Other |
| Mud Type(s) and Additive(s) N/A | | | |
| | mmenced11/4/14 | | 4 |
| Date completion activities began11/17/14 | Date completion activitie | s ceased | 12/5/14 |
| Verbal plugging (Y/N) N Date permission gran | ted(| Granted by | |
| Please note: Operator is required to submit a plugging app. Freshwater depth(s) ft | lication within 5 days of verba Open mine(s) (Y/N) depth Void(s) encountered (Y/N) | s | N |
| bait water depth(5) it | | | N |
| Coal depth(s) ft 468'- 473' | Cavern(s) encountered (Y/ | N) depths | |
| Is coal being mined in area (Y/N)N | | | Reviewed by: |

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|-----------------------|---|---|-------------------------|---------------------------|----------------|--------------|-----------------------|-------------|----------------------------|
| API 47- 043 | _ 03471 | Farm na | me_MCCLUR | E, ANDY J. | & REB | ECCA Wel | l number 21 | 4 | |
| CASING | Hole | Casing | | New or | Grade | | Basket | Did cen | nent circulate (Y/N) |
| STRINGS Conductor | Size 12 1/4" | Size 11 5/8" | Depth 30' | Used | wt/ft | LS | Depth(s) | + Provi | ide details below* Sand In |
| Surface | 8 3/4" | 7" | 590' | New | | LS | 84' | | Y |
| Coal | 0 3/4 | | 390 | - IVEW | | LO | 04 | | |
| Intermediate 1 | | | | | | | | | |
| Intermediate 2 | | | | | | | | | |
| Intermediate 3 | | | | | | | | | |
| Production | 6 1/4" | 4 1/2" | 2583.1 | New | | J-55 | | | Y |
| Tubing | 6 1/4 | 4 1/2 | 2563.1 | ivew | ·· | J-55 | | | <u> </u> |
| Packer type and de | enth set | | L | | | | - | | 1 |
| CEMENT DATA | Class/Type of Cement | Number of Sacks | | | ield ³/sks) | Volume | Cem Top (l | | WOC (hrs) |
| Conductor | | | | | | | | | |
| Surface | Reg Neat | 135 | 15.6 | 15.6 1 | | 159 | Surfa | ace | 8 |
| Coal | | | | | | | | | |
| Intermediate 1 | | | | | | | _ | | |
| Intermediate 2 | | | | | | | | | |
| Intermediate 3 | | | | | | | | | |
| Production | 50:50 Pozmix | 110/125 | 13.2/14. | .2 1.64 | 1/1.27 | 180/159 | 15 | 0' | 8 |
| Tubing | · | | | | | | | | |
| | ion penetrated dedure N/A | | | Loggers Tl Plug back t | | | **** | | 1 |
| Kick off depth | (ft) 600' | | | | | | | | |
| Check all wirel | ine logs run | a caliper a neutron | ■ density ■ resistivity | ₫ deviate | | | duction emperature | □sonic | ; |
| Well cored 🗆 | Yes 🖪 No | Convention | nal Sidew | all | W | ere cuttings | collected • | ∎Yes □ | No |
| DESCRIBE TH | IE CENTRALIZ n bottom on 4 1/2*, Centraliz | ZER PLACEME er placed mid string on 7" | NT USED FOR | EACH CA | SING S | TRING | | | |
| | · · · · · · · · · · · · · · · · · · · | | | | | | <u> </u> | sc. Ph | · · |
| WAS WELL C | OMPLETED A | S SHOT HOLE | □Yes ∄ ì | No DE | TAILS | | | UEC OF | GEIVED Oil and Gas |
| WAS WELL CO | OMPLETED O | PEN HOLE? | □ Yes ■ No | DETA | ILS | | Environ | Depar | 9 2014 Thent of |
| WERE TRACE | RS USED D | les 🖪 No | TYPE OF TR | ACER(S) U | SED | | | Pental p | nent of |

API 47- 043 _ 03471

Farm name_MCCLURE, ANDY J. & REBECCA_Well number_214

PERFORATION RECORD

| Stage No. | Perforation date | Perforated from MD ft. | Perforated to MD ft. | Number of Perforations | Formation(s) |
|--------------|------------------|------------------------|----------------------|---------------------------|--------------|
| 1 | 12/5/14 | 2430' | 2444' | 84 | Berea |
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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 (bbls) | Amount of Nitrogen/other (units) |
|--------------|----------------------|------------------------|---------------------------------|---------------------------------|------------|-----------------------------|---------------------------|-------------------------------------|
| 1 | 12/5/14 | 3.1 | 916 | 1205 | 819 | | 49 | 12 bbls HCL |
| | | | | | | | | |
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| - | | | | | | | or Oil a | ED nd Gas |
| | | | | | | 1 | FC 1000 | - Gas |

Please insert additional pages as applicable.

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|------------------------|-------------------|-----------------|------------------|-----------------|---------------|----------------|---------------------------------------|------------------|---|
| API 47- 043 | _ 03471 | Farm | name MCCLUF | RE, ANDY J. | & REBECC | A Well nu | mber_2 | 214 Oss | REC |
| PRODUCING | FORMATION(| <u>s)</u> . | <u>DEPTHS</u> | | | | | ~ <i>///(</i> | Page 4 of 4 Page 6 of 0 Page 7 of 4 Page 7 of 4 Page 7 of 4 Page 7 of 4 Page 8 of 0 Page 8 of 0 Page 9 of 0 Page |
| Berea . | | | 2430'- 2444' | TVD | | MD | , | . U | Et 12 and Ga |
| | | | | _ ` ` _ | | | Env | ν_{Δ} | 19 ₂₀₁₁ |
| | | - | | | | | IVIT | onn ex | Dam Oly |
| | | - | | | | | | "nen | tal Mont |
| | | | | | | | | | di Prosi Of |
| Please insert ad | lditional pages a | s applicable. | | | | | | | Partment of Protection |
| GAS TEST | □ Build up □ | Drawdown | □ Open Flow | Ol | L TEST of | flow 🗆 l | Pump | | |
| SHUT-IN PRE | SSURE Surf | ace | _psi Botto | m Hole | psi | DURATI | ON OF | TEST _ | hrs |
| OPEN FLOW | Gas | Oil | | W | | | | | |
| | mcf | pd | bpd | bpd | bpd | □ Estima | ated 1 | ⊐ Orifice | □ Pilot |
| | | | | | | | | | |
| LITHOLOGY/ | TOP | воттом | TOP | воттом | | | | | · |
| FORMATION | DEPTH IN FT | DEPTH IN FT | DEPTH IN FT | DEPTH IN FT | DESCRIBE F | ROCK TYPE | AND R | ECORD Q | UANTITYAND |
| | NAME TVD | TVD | MD | MD | TYPE OF FL | UID (FRESI | <u>IWATE</u> | R, BRINE, | OIL, GAS, H2S, ETC) |
| Sand/Shale | 0 | 468 | 0 | 468 | | | | | |
| Pittsburgh Coal | 468 | 473 | 468 | 473 | | | | | |
| Sand/Shale | 473 | 1648 | 473 | 1680 | | | | | |
| Big Lime | 1648 | 1854 | 1680 | 1896 | | | | | |
| Big Injun | 1854 | 2095 | 1896 | 2149 | | | | | |
| Shale | 2095 | 2345 | 2149 | 2404 | | | | | |
| Coffee Shale | 2345 | 2368 | 2404 | 2428 | | | | | <u> </u> |
| Berea | 2368 | 2387 | 2428 | 2448 | | | _ | | |
| Shale | 2387 | 2570 | 2448 | 2631 | D | rilled directi | onal S 4 | 1° E a dist | ance of 425' |
| TD | 2570' | _ | 2631 | | | | | | |
| | | | | | | | | | <u> </u> |
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| | <u> </u> | <u> </u> | <u> </u> | | <u> </u> | | | | |
| Please insert ac | lditional pages a | s applicable. | | | | | | | |
| Drilling Contra | ctor Decker Dril | ling | | | | | | | |
| Address 11565 | State Route 676 | | City | Vincent | | _ State _ | OH | _Zip <u>457</u> | 784 |
| | Modification | l International | | | | | | | |
| Logging Comp | any Weatherford | international | | Weston | | o 1 | wv | 26 <i>/</i> | 152 |
| Address 777 No | orm River Avenue | | City | vveston | | State _ | · · · · · · · · · · · · · · · · · · · | _Zip <u>_264</u> | +52 |
| Cementing Cor | npany Universal | Services | | | | | | | |
| Address 5252 R | tt 1428 | | City | Allen | | State I | KY | Zip 416 | 601 |
| | | | | | | | | | |
| Stimulating Co | pu, | ers Service Co | | | | | | | |
| | uth Graham Street | | City | Zanesville | | _ State _ | OH | Zip <u>437</u> | /01 |
| Please insert ad | lditional pages a | s applicable. | | | | | | | i : |
| Completed by | Roger Heldman | | | | Telephone | | | | |
| Signature | Lenk | Optime. | Title O | perations Manag | | | ate _12/ | B/14 | i |
| | | | | | _ | | | | |
| Submittal of H | ydraulic Fractur | ing Chemical 1 | Disclosure Infoi | rmation A | ttach copy of | FRACEC | CUS R | legistry | |

| Prepared for: | | | | Pro Pro Jas |
|---------------------------------|---------------|--------|------------|----------------------|
| HG Energy | PRODUCERS_ | | | 109 |
| | SERVICE CORP. | | | Zai 740 |
| INVOICE #: 17198 | | | | |
| WELL NAME: J A Fowler #214 | | | | |
| STATE & COUNTY: WV / Lincoln | | | | |
| TOWNSHIP/FIELD: Griffithsville | | | | |
| DATE of SERVICE: 12/5/2014 | | | | |
| CUSTOMER PO# | | | | |
| Description | Notes | Amount | Units | ι |
| ACID PUMP CHARGE 1000-2000 PSI | | 1 | EA | \$ |
| MILEAGE CHARGE PER UNIT ONE WAY | | 0 | MI | \$ |
| C ACID 15% | | 500 | | \$ \$ \$ \$ |
| PRO HIB II | | 0.5 | | \$ |
| ACID DELIVERY | | 2 | HR | \$ |
| PRO CLA FIRM LP | | 0.5 | | \$ |
| PRO PEN | | 0.5 | GAL GAL | \$ |
| PRO NE-1 PRO SOL | | 5 | | \$ |
| DATA VAN | | | STAGE | |
| DATA VAIN | | | | 1 |
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