

RAILROAD COMMISSION OF TEXAS

1701 N. Congress P.O. Box 12967 Austin, Texas 78701-2967 Status: Date:

Tracking No.:

GAS WELL BACK PRESSURE TEST, COMPLETION OR RECOMPLETION REPORT, AND LOG

OPERATOR INFORMATION

Operator Name: BP AMERICA PRODUCTION COMPANY **Operator No.:** 040798 **Operator Address:** ATTN JEANINE HALLER-PISKURICH 737 NORTH ELDRIDGE PARKWAY HOUSTON, TX 77079-0000

| WELL INF | ORMATION |
|--|--|
| API No.: 42-005-30407 | County: ANGELINA |
| Well No.: 1H | RRC District No.: 06 |
| Lease Name: DINO GAS UNIT | Field Name: CARTHAGE (HAYNESVILLE SHALE) |
| RRC Gas ID No.: | Field No.: 16032300 |
| Location: Section: ,Block: , Survey: CUELLA, R G, Abstract: 150 | |
| | |
| Latitude: | Longitude: |
| This well is located 7.2 miles in a NE | |
| direction from HUNTINGTON, | |
| which is the nearest town in the county. | |
| FILING IN | FORMATION |
| Purpose of filing: Initial Potential | |
| Type of completion: New Well | |
| Well Type: Producing | Completion or Recompletion Date: 04/11/2017 |
| Type of Permit | Date Permit No. |
| | /13/2016 818218 |
| Rule 37 Exception | 0301751 |
| Fluid Injection Permit | |
| O&G Waste Disposal Permit | |
| Other: | |
| | |
| Spud date: 12/16/2016 | INFORMATIONDate of first production after rig released:04/11/2017 |
| Date plug back, deepening, recompletion, or | Date plug back, deepening, recompletion, or |
| drilling operation commenced: 12/16/2016 | drilling operation ended: 04/11/2017 |
| Number of producing wells on this lease in | Distance to nearest well in lease & |
| this field (reservoir) including this well: 1 | reservoir (ft.): 0.0 |
| Total number of acres in lease: 945.26 | Elevation (ft.): 201 GL |
| Total depth TVD (ft.): 15707 | Total depth MD (ft.): 21207 |
| Plug back depth TVD (ft.): | Plug back depth MD (ft.): |
| Was directional survey made other than | |
| inclination (Form W-12)? No | Rotation time within surface casing (hours):466.0Is Cementing Affidavit (Form W-15) attached?Yes |
| | |
| Recompletion or reclass? No Type(s) of electric or other log(s) run: Gamma Ray (M | |
| Electric Log Other Description: | VVD) |
| Location of well, relative to nearest lease boundaries | Off Lease: No |
| | 34.0 Feet from the North Line and |
| | 66.0 Feet from the West Line of the |
| | DINO GAS UNIT Lease. |
| | |
| | |
| • | OIR) & GAS ID OR OIL LEASE NO. |
| Field & Reservoir Gas | D or Oil Lease No. Well No. Prior Service Type |

Form G-1

Submitted

07/18/2017

173693

| G1: N/A | | | | | | | |
|--|--|------------------|--|--|--|--|--|
| PACKET: N/A | | | | | | | |
| | | | | | | | |
| FOR NEW DRILL OR RE-ENTRY, | FOR NEW DRILL OR RE-ENTRY, SURFACE CASING DEPTH DETERMINED BY: | | | | | | |
| GAU Groundwater Protection Determination | Depth (ft.): 1900.0 | Date: 04/03/2017 | | | | | |
| SWR 13 Exception | Depth (ft.): 4500.0 | | | | | | |
| | | | | | | | |
| GAS M | GAS MEASUREMENT DATA | | | | | | |
| Data of toot: 06/12/2017 | Coo mocouroment method/ | | | | | | |

| | | | | GAS WEAS | | DAIA | | | | |
|------------|--|---------------------------------|--|-----------------------------|--------------|----------------------|-----------------------|-----------------|-------------------|---------------------|
| Date | Date of test: 06/13/2017 Gas measurement method(s): | | | | | | | | | |
| Gas | Gas production during test (MCF): 41745 Orifice Meter, Flange Taps | | | | | | | | | |
| Was | Was the well preflowed for 48 hours? Yes | | | | | | | | | |
| Run No. | Line size | Orif. or Choke Size (in.) | 24 hr. Coeff. Orif. Or Choke (in.) | Static Pm or Choke (in.) | Diff (hw) | Flow Temp (°F) | <u>Temp.</u> (Ftf) | Gravity (Fg) | Compress (Fpv) | Volume (MCF/day) |
| 1 | 3.820 | 2.375 | 39008.44 | 953.0 | 117.7 | 69.0 | 0.9915 | 1.0012 | 1.073 | 13915.0 |

| | | FIELD DATA AND PR | RESSURE CALCULATIONS | | | | |
|---|--------------------|-------------------|---|--------------------------|--|--|--|
| Gravity (dry | gas): 0.599 | | Gravity (liquid hydrocarbons) |) (Deg. API): | | | |
| Gas-Liquid Hydro Ratio (CF/Bbl): Gravity (mixture): Gmix= 0.599 | | | | | | | |
| Avg. shut in | temp. (°F): 379.0 | | Bottom hole temp. and depth: 417.0 °F@ 18078.0 FT | | | | |
| Run No. | Time of Run (Min.) | Choke Size (in.) | Wellhead Pressure (PSIA) | Wellhead Flow Temp (°F) | | | |
| SHUT-IN | 1440 | 0 | 14280 | 340.0 | | | |
| 1 | 4320 | 25.5/64 | 10352 | 165.0 | | | |

| | CASING RECORD | | | | | | | | | | |
|-----|-------------------------|-------------------------|--------|---------------------------|--|--------------------------------------|----------|------|--------|--------------------------|---------------------------|
| Row | Type of Casing | Casing Size (in.) | | Setting Depth (ft.) | | Multi - Stage Shoe Depth (ft.) | | | | Top of Cemen (ft.) | t <u>Determined</u> By |
| 1 | Surface | 13 3/8 | 17 1/2 | 4312 | | | TYPE 1 | 2582 | 4560.0 | | Circulated to Surface |
| 2 | Intermediate | 9 5/8 | 12 1/4 | 14493 | | | CLASS H+ | 956 | 3476.0 | ACE SURF ACE | Circulated to Surface |
| 3 | Conventional Production | on 51/2 | 8 1/2 | 21250 | | | CLASS H | 2581 | 3700.0 | 6026 | Calculation |

| | LINER RECORD | | |
|---|---------------------|---|-------------------------|
| Liner Hole Line Row Size (in.) Size (in.) Top (f | Cement Class | Cement Amount (sacks)Slurry Volume (cu. ft.)Top of Cement (ft.) | TOC Determined By |

N/A

| | | TUBING RECORD | |
|-----|------------|------------------|-------------------------------|
| Row | Size (in.) | Depth Size (ft.) | Packer Depth (ft.)/Type |
| 1 | 2 3/8 | 14607 | 14600 / BAKER F-1 PERM PKR |

| | PRODU | CING/INJECTION/DISPOSAL INTERVA | L |
|-----|------------|---------------------------------|-----------------|
| Row | Open hole? | From (ft.) | <u>To (ft.)</u> |
| 1 | No | L1 14945 | 21211 |
| | | | |

| ACID, FRACTURE, CEMENT SQUEEZE, CAST IRON BRIDGE PLUG, RETAINER, ETC. | | | | | | | |
|--|------------------------|--|----------------------|--|--|--|--|
| | | AST IKON BRIDGE PLUG, RETAIN | IER, ETC. | | | | |
| Was hydraulic fracturing treatment | : performed? No | | | | | | |
| | | | | | | | |
| Is well equipped with a downhole a | ctuation | | | | | | |
| | | If yes, actuation pressure (PSIG): | | | | | |
| sleeve? No | | | | | | | |
| Production casing test pressure (P | SIG) prior to | Actual maximum pressure (PSIG) |) during hydraulic | | | | |
| | <i>,</i> . | ······································ | | | | | |
| hydraulic fracturing treatment: | 13500 | fracturing: 13910 | | | | | |
| Has the hydraulic fracturing fluid d reported to FracFocus disclosure r | | lo | | | | | |
| Row Type of Operation | Amount and Kir | nd of Material Used | Depth Interval (ft.) | | | | |
| 1 Fracture | TOTAL MASS LBS 148 | ,375,550.035 TOTAL WATER | 14945.0 21211.0 | | | | |
| | 16,093,770 | FLUID VOL 62,989 | | | | | |

| FORMATION RECORD | | | | | | |
|--|-------------|-----------------|----------------|---------------------------|---------|--|
| Formations | Encountered | Depth TVD (ft.) | Depth MD (ft.) | Is formation isolated? | Remarks | |
| NACATOCH | Yes | 500.0 | 500.0 | Yes | | |
| GLEN ROSE | Yes | 7422.0 | 7422.0 | Yes | | |
| PETTET | Yes | 9753.0 | 9753.0 | Yes | | |
| TRAVIS PEAK | Yes | 10647.0 | 10647.0 | Yes | | |
| COTTON VALLEY | Yes | 12952.0 | 12952.0 | Yes | | |
| BOSSIER SHALE | Yes | 14583.0 | 14583.0 | Yes | | |
| the producing interval of this well produce H2S with a concentration in excess of 100 ppm (SWR 36)? | | | | | | |
| | | | | | | |
| o the producing interval of this well produce H2S with a concentration in excess of 100 ppm (SWR 36)? The completion being downhole commingled (SWR 10)? No | | | | | | |

REMARKS TOTAL SURFACE HOURS ROTATED 466 (THE REQUIRED TRRC TEST WAS SUCCESSFULLY COMPLETED ON 1/31/2017 @ 1300 HRS. WITH USE OF HES RTTS PACKER AND BYPASS VALVE ~ 1,500 PSI & 30 MIN.~)

| RRC REMARKS |
|---|
| PUBLIC COMMENTS: |
| |
| |
| CASING RECORD : |
| |
| |
| TUBING RECORD: |
| |
| |
| PRODUCING/INJECTION/DISPOSAL INTERVAL : |
| |
| |
| ACID, FRACTURE, CEMENT SQUEEZE, CAST IRON BRIDGE PLUG, RETAINER, ETC. : |
| |
| |
| GAS MEASUREMENT DATE REMARK: |
| |
| |
| |
| |

| OPERATOR'S CERTIFICATION | | | | |
|-------------------------------|------------------------------|--|--|--|
| Printed Name: Anita Curtis | Title: Regulatory Specialist | | | |
| Telephone No.: (281) 892-5782 | Date Certified: 07/18/2017 | | | |