



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

Austin Caperton, Cabinet Secretary
www.dep.wv.gov

Friday, June 26, 2020
WELL WORK PLUGGING PERMIT
Vertical Plugging

WACO OIL & GAS CO., INC.
POST OFFICE BOX 397

GLENVILLE, WV 263510397

Re: Permit approval for SPEIDEL 1
47-013-04394-00-00

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.

James A. Martin
Chief

Operator's Well Number: SPEIDEL 1
Farm Name: COOPER, JR, HENRY W.
U.S. WELL NUMBER: 47-013-04394-00-00
Vertical Plugging
Date Issued: 6/26/2020

A handwritten signature in blue ink, appearing to read 'James A. Martin', is written over a faint circular stamp.

Promoting a healthy environment.

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. Failure to adhere to the specified permit conditions may result in enforcement action.

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.

1) Date June 12, 2020
 2) Operator's
 Well No. Speidel No. 1
 3) API Well No. 47-013 - 04394

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 / Liquid injection ____ / Waste disposal ____ /
 (If "Gas, Production x or Underground storage ____) Deep x / Shallow ____

5) Location: Elevation 1118' Watershed Road Fork
 District Sherman County Calhoun Quadrangle Grantsville 7.5'

6) Well Operator Waco Oil & Gas Co., Inc. 7) Designated Agent Stephen E Holloway
 Address P.O. Box 397 Address P.O. Box 397
Glenville, WV 26351 Glenville, WV 26351

8) Oil and Gas Inspector to be notified Name Doug Newlin 9) Plugging Contractor Name Boss Cementing Services
 Address douglas.c.newlin@wv.gov Address 670 US-41
Henderson, KY 42420

10) Work Order: The work order for the manner of plugging this well is as follows:

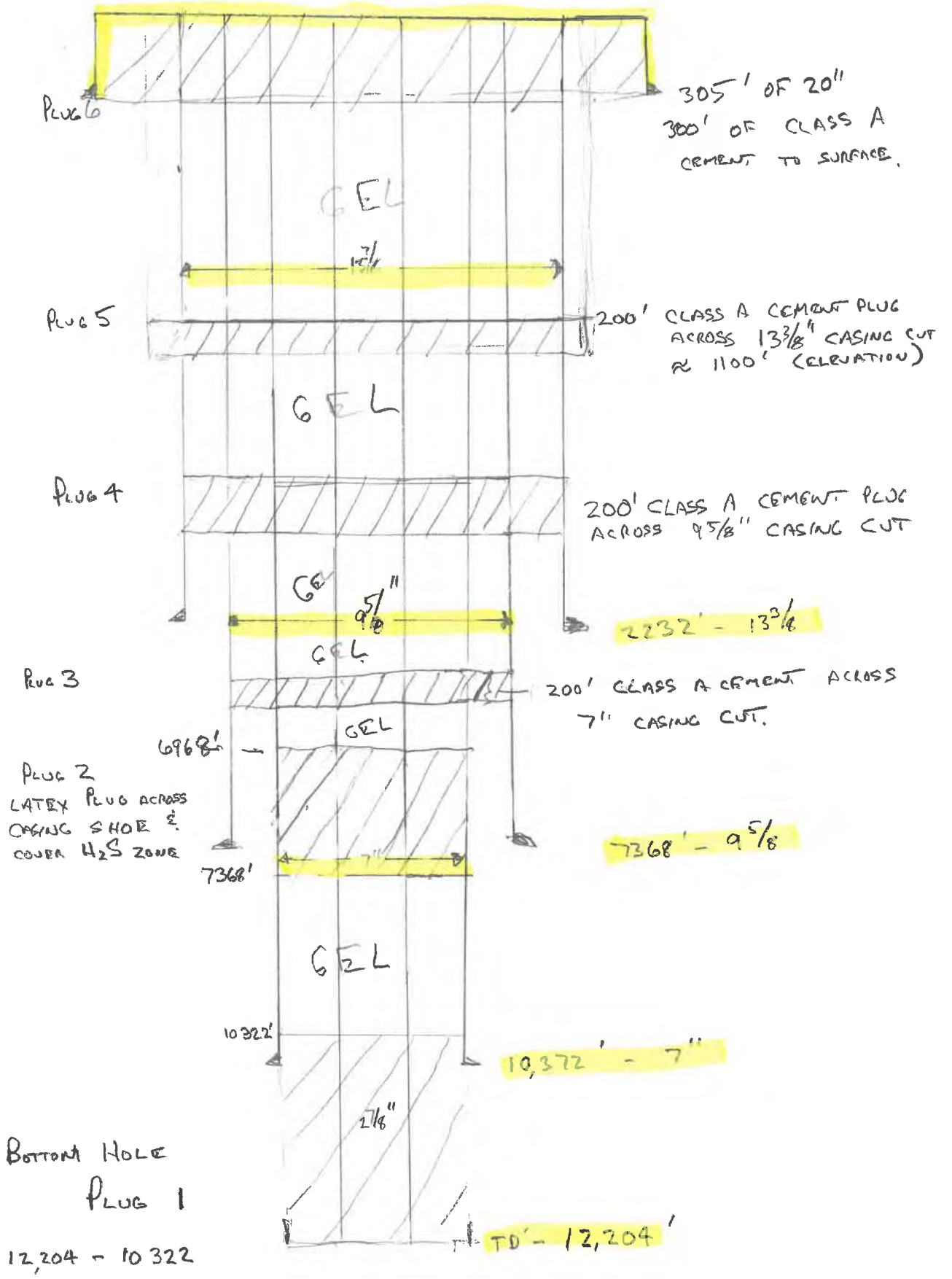
Set bottom hole plug from TD to 50' up inside 7", three point or bond log 7" and cut. Set cement plug 50' below and 50' above 7" cut point. Three point or bond log 9 5/8" and set cement plug 50' below and 50' above 9 5/8" cut point. Set elevation plug and set 300' top plug.

- REMOVE 2 7/8" OR USE TO CEMENT THROUGH.
1. SET BOTTOM HOLE PLUG FROM 12,204'(TD) TO 10,322'
 2. SET 400' LATEX PLUG FROM 7368' (CASING SHOE) TO 6968' COVERING H₂S ZONE.
 3. SET 200' CLASS A CEMENT PLUG ACROSS 7" CASING CUT.
 4. FREEPOINT 9 5/8" AND SET 200' CLASS A CEMENT PLUG ACROSS 9 5/8" CASING CUT.
 5. SET 200' CLASS A CEMENT PLUG ACROSS 13 3/8" CASING CUT:
 6. SET A CLASS A CEMENT PLUG FROM 300' TO SURFACE
 7. SET MONUMENT.
- 6% GEL BETWEEN ALL PLUGS

RECEIVED
 Office of Oil and Gas
 JUN 16 2020
 WV Department of
 Environmental Protection

Notification must be given to the district oil and gas inspector 24 hours before permitted work can commence.

Work order approved by inspector by DOUG NEWLIN Date 6/22/2020



McLaughlin, Jeffrey W

From: Buddy Wylie <Buddy.Wylie@cabotog.com>
Sent: Wednesday, June 17, 2020 12:18 PM
To: McLaughlin, Jeffrey W
Cc: Buddy Wylie
Subject: reply RE: Speidel 1
Attachments: 4701304394cbl1.tif; 4701304394cbl2.tif

Jeff,

Hope this info helps. Tried to capture casing sets and shoe tests.

Enjoyed speaking with you.

Best Regards,

Buddy

Well History by API Number

26-Aug-13

Region Name: West Virginia

Well Name: **SPEIDEL #1** API
 Operator: **Cabot Oil & Gas Corporation** AFE Number: **4151**

09/20/2001 Current Depth: **7,070** Daily Cost: **\$14,478** Project Type: **1-EXP DR**
 AFE Cost
 Current Status: **Cleaning hole and drilling**

When reaming down last 3 joints started picking up H2S that had been laying in bottom of hole and c
 Pulled tube and had 1200 ppm H2S. After getting back to drilling new hole, with air on hole, pulled a
 catcher that showed 40 ppm H2S. One hour later pulled another tube at sample catcher, with air on
 ppm. Can smell H2S on location but not at foot of hill where location road starts. Serviced rig and ai
 compressor on rig motor, change oil etc. TIH to 6796'. Ream 12 1/4" hole to bottom. Cleaned hole, h
 connection. Bad seal on motor turned out to be an air compressor with a cracked housing, replaced.
 out of hole in good shape. Bit cam out of hole 3/16" under gauge and had 6 buttons missing. Survey

09/21/2001 Current Depth: **7,193** Daily Cost: **\$14,478** AFE Cost
 Current Status: **Cleaning hole, working string.**

Cleaned hole - had 15' fill-up on connection. Drilled 12-1/4" hole. Serviced rig and air. Survey @
 Worked string. Hole will circulate air, but can't move or rotate string. Circulated hole. Mixed FW b
 string. Mixed SW soap and waited on circulation. Note: While servicing rig, the salt which was jus
 flowed into hole hanging bit even though air was always on the hole. After being unable to get free by
 decided to go to soap with a FW base to wash away salt. After getting unstuck, went to a SW based
 into hole when string is picked up. Continuously working string up and down. Hole is cleaning all rig
 string is picked up more salt flows into hole. Currently mixing 1/2 and 1/2 SW and FW trying to dissc
 away./// Soap mix contains 1 1/2 gal. FSF 1800, 1/2 bag Soda Ash, 6 bags KCl, 2 gal. HD Soap to 2f

09/22/2001 Current Depth: **7,255** Daily Cost: **\$24,027** AFE Cost
 Current Status: **Cleaning hole and circulating fill out of hole.**

Clean hole and work string while increasing soap concentration. Serviced rig and air and held safety
 12 1/4" hole. Short trip 5 joints. Circulate back down thru fill cleaning out hole. Gas check 8-10 ppm f

09/23/2001 Current Depth: **7,476** Daily Cost: **\$20,068** AFE Cost
 Current Status: **TIH to bottom to check for fill up, mixing 150 bbl pill to hold salt an**

Samples have not shown any salt or anhydrate cavings since short trip and clean out. Samples hav
 Devonian shale cavings either. Have had no trouble making connections and have had no fill up on c
 cleaning hole at TD, had 20,000# drag coming up off bottom. Lost drag after pulling 5 1/2 stands. TD
 7476' KB. Stratagraph went on stand at 3:00 am on 9-23-01. Ace Tank hauled 6 loads of brine wate
 mechanic test ran V-12 mud pump motor. Put Franks Casing Crew tools on location. Gas check 8-1C

09/24/2001 Current Depth: **7,476** Daily Cost: **\$27,953** AFE Cost
 Current Status: **Running 9 5/8" casing**

Circulated hole to bottom cleaning out fill and set pill. TOH and lay down drill collars. Serviced rig anc
 Casing Crew. Running 9 5/8" casing. Set 150 bbl "Pill" from 7476'-6447' across salt to keep it from ce
 last 900' +/- of 9 5/8" casing. Pill has a brine base with 3% KCl, salt gel and viscosifier. Viscosity +/- 2
 pill, had no more than the normal, 10,000# of drag. Had to lay down 3 joints of 9 5/8" casing that we
 pin end. Threads were damaged trying to make up the joints. Pipe is threaded slightly off center. Gas

26-Aug-13

Region Name: West Virginia

Well Name: **SPEIDEL #1** API N
 Operator: **Cabot Oil & Gas Corporation** AFE Number: **41591**

Project Type: 1-EXP DRILL
 AFE Cost to

09/26/2001 Current Depth: 7,476 Daily Cost: \$62,954

Current Status: Nipping up 5000# BOP stack.

WOC. Cement 2nd stage on 9 5/8" csg. WOC. Cut off 9 5/8" csg. Nipped down. Made final cut on 9 5/8" csg. cut, install 9X7 wellhead spool. Pressure tested 9X7 spool to 5000 lb. Test held. NU 11" X 5000 lb cement job: At 11:45 am removed plug container, dropped "bomb", reloaded plug container and installed container. Opened stage tool. Establish circ and cement as follows: 10 bbl FW, 10 bbl CW-100, 10 bbl Class A w/ 6% gel and 0.25% dispersant. Drop plug and displace w/ 277 bbl FW. Close DV tool w/ 15 hand on location during job. Hole did not circulate, could feel some air movement out of annulus during

09/27/2001 Current Depth: 7,476 Daily Cost: \$16,518 AFE Cost to

Current Status: Prep to TIH and drill out DV tool.

Nipped up on BOP stack. Tested accumulator and remote control. RU choke assembly. Tested BOP. Laid flow line while WO BOP door gasket. Performed low pressure test on BOP stack to 325 psi, for pressure tested to 4000 psi. Choke manifold, pipe rams, blind rams, HCR valve, annular, and manual BOP stack. All were tested for 15 minutes. All held after replacing door gasket and 1/2" allen screws

09/28/2001 Current Depth: 7,476 Daily Cost: \$11,380 AFE Cost to

Current Status: RU Baker Atlas prep to log.

NU flow line. Take link out of rotary chain, change il in rotary chain. RU drill collar and TIH. Put in air blow water. TIH blowing water. Put soap on hole and circulate hole. Drill DV tool. Ream through where deburr it. Clean hole. Load hole. TOH half way. Load hole. TOH.

09/29/2001 Current Depth: 7,476 Daily Cost: \$24,271 AFE Cost to

Current Status: Drilling wiper plug, insert, and shoe.

TOH. RU Baker Atlas Wireline, Run Segmented Bond Log, RD. Serviced rig and air. TIH Blowing w/ Drilling wiper plug. Ran Segmented Bond Log from 7240' to 2200'. LTD 7240'. TOC 3560'. Est TOC 2 50% bond from 7240 to 7140 and 3250 to 3450'. Rest of hole had 50% bond. Set down with Drill bit at 7280' was swapped out, new survey machine not working yet.

09/30/2001 Current Depth: 7,519 Daily Cost: \$14,163 AFE Cost to

Current Status: TIH.

Drilled cement, insert, cement, and guide shoe. Drilled 12" new hole. Dried hole. Drilled 8-1/2" hole 1 1/4" N35W. TOH. PU 8 1/2" Hammer bit and weld on bit breaker. TIH. Serviced rig and air. Bottom follows: 8 1/2" hammer bit, Hammer, Bit float sub w/ rupture disc, disc set to rupture at 3250 psi., Crow

10/01/2001 Current Depth: 7,705 Daily Cost: \$12,400 AFE Cost to

Current Status: Waiting on mechanic.

Taking surveys 30' off bottom. /// After survey at 7665', #2 rig motor started blowing oil out of brea not make connections without both rig motors. Currently, waiting on mechanic and keeping 2 compress booster on the hole. When drilling, UDI is only using one rig motor to rotate with. Backed off down ho lost 33,000 lb of string weight. Screwed back in collars and continued drilling. Have 2 1/2 turns of torqu

10/02/2001 Current Depth: 7,845 Daily Cost: \$13,900 AFE Cost to

Current Status: Drilling 8-1/2" hole.

26-Aug-13

Region Name: West Virginia

Well Name: **SPEIDEL #1** API N
 Operator: **Cabot Oil & Gas Corporation** AFE Number: **41594**

09/26/2001 Current Depth: 7,476 Daily Cost: \$62,954 Project Type: 1-EXP DRILL
 AFE Cost to Date: \$62,954
 Current Status: **Nippling up 5000# BOP stack.**

WOC. Cement 2nd stage on 9 5/8" csg. WOC. Cut off 9 5/8" csg. Nippled down. Made final cut on 9 5/8" csg. cut, install 9X7 wellhead spool. Pressure tested 9X7 spool to 5000 lb. Test held. NU 11" X 5000 lb csg. Cement job: At 11:45 am removed plug container, dropped "bomb", reloaded plug container and installed container. Opened stage tool. Establish circ and cement as follows: 10 bbl FW, 10 bbl CW-100, 10 bbl Class A w/ 6% gel and 0.25% dispersant. Drop plug and displace w/ 277 bbl FW. Close DV tool w/ 15 hand on location during job. Hole did not circulate, could feel some air movement out of annulus during

09/27/2001 Current Depth: 7,476 Daily Cost: \$16,518 AFE Cost to Date: \$79,472
 Current Status: **Prep to TIH and drill out DV tool.**

Nippled up on BOP stack. Tested accumulator and remote control. RU choke assembly. Tested BOP. Laid flow line while WO BOP door gasket. Performed low pressure test on BOP stack to 325 psi, followed by pressure tested to 4000 psi. Choke manifold, pipe rams, blind rams, HCR valve, annular, and manual BOP stack. All were tested for 15 minutes. All held after replacing door gasket and 1/2" allen screws.

09/28/2001 Current Depth: 7,476 Daily Cost: \$11,380 AFE Cost to Date: \$90,852
 Current Status: **RU Baker Atlas prep to log.**

NU flow line. Take link out of rotary chain, change il in rotary chain. RU drill collar and TIH. Put in air ho. blow water. TIH blowing water. Put soap on hole and circulate hole. Drill DV tool. Ream through where deburr it. Clean hole. Load hole. TOH half way. Load hole. TOH.

09/29/2001 Current Depth: 7,476 Daily Cost: \$24,271 AFE Cost to Date: \$115,123
 Current Status: **Drilling wiper plug, insert, and shoe.**

TOH. RU Baker Atlas Wireline, Run Segmented Bond Log, RD. Serviced rig and air. TIH Blowing w/ Drilling wiper plug. Ran Segmented Bond Log from 7240' to 2200'. LTD 7240'. TOC 3560'. Est TOC 2200'. bond from 7240 to 7140 and 3250 to 3450'. Rest of hole had 50% bond. Set down with Drill bit at 7280'. bit was swapped out, new survey machine not working yet.

09/30/2001 Current Depth: 7,519 Daily Cost: \$14,163 AFE Cost to Date: \$129,286
 Current Status: **TIH.**

Drilled cement, insert, cement, and guide shoe. Drilled 12" new hole. Dried hole. Drilled 8-1/2" hole 1 1/4° N35W. TOH. PU 8 1/2" Hammer bit and weld on bit breaker. TIH. Serviced rig and air. Bolted follows: 8 1/2" hammer bit, Hammer, Bit float sub w/ rupture disc, disc set to rupture at 3250 psi., Crow

10/01/2001 Current Depth: 7,705 Daily Cost: \$12,400 AFE Cost to Date: \$141,686
 Current Status: **Waiting on mechanic.**

Taking surveys 30' off bottom. /// After survey at 7665', #2 rig motor started blowing oil out of breat not make connections without both rig motors. Currently, waiting on mechanic and keeping 2 compres booster on the hole. When drilling, UDI is only using one rig motor to rotate with. Backed off down ho lost 33,000 lb of string weight. Screwed back in collars and continued drilling. Have 2 1/2 turns of torqu

10/02/2001 Current Depth: 7,845 Daily Cost: \$13,900 AFE Cost to Date: \$155,586
 Current Status: **Drilling 8-1/2" hole.**

10/24/2001 Current Depth: 10,385 Daily Cost: \$23,832 AFE Cost to I
 Current Status: **Waiting on Schlumberger**

Service rig and mud pump. Cleaned hole and ran sweeps with rapid mud. Short trip 10 stands out of hole circulate hole. Mix 260 bbl pill for open hole. NOTE: Due to size of bottom hole pill could not mix pill in pit use the entire 360 bbl mud pit with the mixing hopper on it. Spot pill. TOH chaining out and laying down wet connect. TOH laying down DP. TOH laying down DC and Mud Motor. Additional mud info: pH-11.0; 184,000; KCl-3.8%; Pump rate-100 strokes (8.7 BPM) NOTE: Held over Daylights and Evening tours to down drill pipe. Surveys: 10219' Inc.-10.2 deg Azi-224.0 / 10251' Inc.10.5 deg. Azi-239.3 / 10283' Inc-11.0315' Inc-11.9 deg. Azi-265.5 / 10346' Inc.-11.9 deg. Azi-278.3 / PROJECTION to 10386' Inc.12.0 deg.

10/25/2001 Current Depth: 10,385 Daily Cost: \$51,882 AFE Cost to I
 Current Status: **Running 7" casing.**

Wait on Schlumberger. RU and ran GR/Density/Neutron/Pe/Sonic/Directional/TVD/FMS. RD. Ran 7" casing 26 lb/ft, M-95/P-110, 7" CSG.RU Frank's Casing Crew. Surveys: 10219' Inc.-10.2 deg Azi-224.0 / 10251' Inc-11.3 deg. Azi-254.4 / 10315' Inc-11.9 deg. Azi-265.5 / 10346' Inc.-11.9 deg. Azi-278.3

10/26/2001 Current Depth: 10,385 Daily Cost: \$214,380 AFE Cost to I
 Current Status: **WOC until 4:30 AM.**

Ran 248 joints; 10,375.95'; M-95/P-110; 26 lb/ft; 7" csg. Set at 10,372' KB. Insert at 10,328.85' KB. 5 KB when running casing. Decided to set it at 10,372' KB. Set 7" in slips. RD Frank' Casing Crew. RU cemented 7" csg. with 50 bbl FW, 30 bbl CW-100, 25 bbl FW, 515 sx 35/65 Poz-mix, 150 sx Class H, and w/latex. Displaced w/406 bbl FW. Calc displacement 396 bbl. Plug down at 4:30 AM 10-26-01. Hole after 48 bbl FW were pumped ahead of the CW-100.WO cement.

10/27/2001 Current Depth: 10,385 Daily Cost: \$52,625 AFE Cost to I
 Current Status: **Prep to cut 7" casing, install 7x4 well head, and NU 10,000# BOP sta**

Dowell's lab tests showed compressive strength in 8 hrs of 600/700 psi in 8 hrs and 1250/1350 psi in 24 seeing very poor to no bond in 12 hrs on log, decided to wait to 24 hrs and relog bottom 1000'. Log showed improvement. 4:30 PM RU Atlas wireline and bond log 7" casing. 10:00 PM WOC. Hauled pipe tubs with off location and stacked out to make room for Weatherford Underbalanced equipment and 3 1/2" drill pipe portion of hole. Hauled in part of Weatherfords equipment. 4:30 AM Bond log and RD Atlas.

10/24/2001 Current Depth: 10,385 Daily Cost: \$23,832 AFE Cost to Date: \$1,733,734

Current Status: **Waiting on Schlumberger**

Service rig and mud pump. Cleaned hole and ran sweeps with rapid mud. Short trip. 10 stands out of hole hole. TH and circulate hole. Mix 260 bbl pill for open hole. NOTE: Due to size of bottom hole pill could not mix pill in pill tank. Had to use the entire 360 bbl mud pit with the mixing hopper on it. Spot pill. TOH chaining out and laying down 4 1/2" DP. Pull wet connect. TOH laying down DP. TOH laying down DC and Mud Motor. Additional mud info: pH-11.0; Chlorides-184,000; KCl-3.8%; Pump rate-100 strokes (8.7 BPM). NOTE: Held over Daylights and Evening tours to mix pill and lay down drill pipe. Surveys: 10219' Inc.-10.2 deg Azi-224.0 / 10251' Inc.10.5 deg. Azi-239.3 / 10283' Inc.-11.3 deg. Azi-254.4 / 10315' Inc.-11.9 deg. Azi-265.5 / 10346' Inc.-11.9 deg. Azi-278.3 / PROJECTION to 10386' Inc.12.0 deg. Azi-291.0

10/25/2001 Current Depth: 10,385 Daily Cost: \$51,882 AFE Cost to Date: \$1,785,616

Current Status: **Running 7" casing.**

Wait on Schlumberger. RU and ran GR/Density/Neutron/Pe/Sonic/Directional/TVD/FMS. RD. Ran 7. casing. Running 26 lb/ft, M-95/P-110, 7" CSG. RU Frank's Casing Crew. Surveys: 10219' Inc.-10.2 deg Azi-224.0 / 10251' Inc.10.5 deg. Azi-239.3 / 10283' Inc.-11.3 deg. Azi-254.4 / 10315' Inc.-11.9 deg. Azi-265.5 / 10346' Inc.-11.9 deg. Azi-278.3 / PROJECTION to

10/26/2001 Current Depth: 10,385 Daily Cost: \$214,380 AFE Cost to Date: \$1,999,996

Current Status: **WOC until 4:30 AM.**

Ran 248 joints: 10,375.95' M-95/P-110. 26 lb/ft. 7" csg. Set at 10,372' KB. Insert at 10,328.85' KB. Set down at 10,375' KB when running casing. Decided to set it at 10,372' KB. Set 7" in slips. RD Frank' Casing Crew. RU Dowell and cemented 7" csg. with 50 bbl FW, 30 bbl CW-100, 25 bbl FW, 515 sx 35/65 Poz-mix, 150 sx Class H, and 150 sx Class H w/latex Displaced w/406 bbl FW. Calc displacement 396 bbl Plug down at 4:30 AM 10-26-01. Hole circulated fluid after 48 bbl FW were pumped ahead of the CW-100. WO cement.

10/27/2001 Current Depth: 10,385 Daily Cost: \$52,625 AFE Cost to Date: \$2,052,621

Current Status: **Prep to cut 7" casing, install 7x4 well head, and NU 10,000# BOP stack.**

Dowell's lab tests showed compressive strength in 8 hrs of 600/700 psi in 8 hrs and 1250/1350 psi in 24 hrs. After seeing very poor to no bond in 12 hrs on log, decided to wait to 24 hrs and relog bottom 1000'. Log showed good improvement. 4:30 PM RU Atlas wireline and bond log 7" casing. 10:00 PM WOC. Hauled pipe tubs with 4 1/2" drill pipe off location and stacked out to make room for Weatherford Underbalanced equipment and 3 1/2" drill pipe for 6 1/4" portion of hole. Hauled in part of Weatherfords equipment. 4:30 AM Bond log and RD Atlas.

Project Type: 1-EXP DRILL
 \$30,457 AFE Cost to

11/09/2001 Current Depth: 10,437 Daily Cost:
 Current Status: Sliding

6 AM Serviced rig and mud pump. 6:30 PM TIH. 8:45 AM BOP drill. 9:00 AM TIH. 3:00 PM Circulate ho sub. 4:00 PM Set wet connect @ 10,315'. 6:00 PM Wash to bottom. 7:00 PM Safety meeting with Weat Drilling 6 1/4" hole with motor. 10:00 PM Sliding and rotating. 3:00 AM Service rog and mud pump. 3:30 rotating. When laying flow line up on pit wall it jumped a collar due to the bind it was in. Had to weld a line. Set Nemsco mud plant to begin mixing weighted pill. CASING TEST - tested 7" casing to 3031 p Tested shoe to 1754 psi and held for 15 min. After 15 min pressure had bled off to 1722 psi. Decided to 2000 psi. Put 2005 psi on hole and held for 15 min. After 15 min pressure had bled off to 1987 psi. Call String weight 132,000#, HOB 7, Stand pipe pressure 1800 psi, Strokes per min 100. Survey @ 10,383

11/10/2001 Current Depth: 10,515 Daily Cost: \$86,434 AFE Cost to
 Current Status: Sliding.

6:00 AM Sliding. 8:30 AM Worked on pressure sensor leak. 10:30 AM Sliding. 11:15 AM BOP Drill. 11:30 PM BOP drill. 3:00 PM Sliding. 11:15 PM BOP drill. 11:30 PM Sliding and rotated from 10,487' to 10,515'. costs for the BOP equipment rental from Weatherford (\$39,174). String weight 115,000#, HOB 26 1/2, pressure 1650-1850 psi, Strokes per min 100, Drag 10-15K.

11/11/2001 Current Depth: 10,547 Daily Cost: \$48,315 AFE Cost to
 Current Status: Prep to PU new motor.

6:00 AM Sliding. 8:45 AM Put Duplex pump on hole and work on triplex. 10:00 AM Sliding. 1:45 PM Wo 2:30 PM Sliding. 7:30 PM Clean hole and fill trip tank. 8:15 PM TOH for bit/motor. 8:30 PM Pull wet con 10:30 PM TOH for bit/motor. 4:30 AM Break bit. 5:00 AM Examine motor and lay down motor. NOTE: D and was getting worse as the day went on, Directional Driller thought bit was bad. Decided to TOH for t ever was bad. Motor had 3/4" of play up and down in the bearings and 3/8" of play side to side. Bit was a new bit on the new motor to avoid a bit trip in 20 hours or so of drilling with new motor. String weight 1

A. S. 'Buddy' Wylie, Ph.D., P.G.
 Manager, Exploration-North
 Cabot Oil & Gas Corporation
 2000 Park Lane Drive, Suite 300
 Pittsburgh, PA 15275-1121
 Direct: 412/249-3930
 Main: 412/249-3850

From: McLaughlin, Jeffrey W <Jeffrey.W.McLaughlin@wv.gov>
Sent: Wednesday, June 17, 2020 11:51 AM
To: Buddy Wylie <Buddy.Wylie@cabotog.com>
Subject: [EXTERNAL] Speidel 1

Buddy,

Drill Stem Test Procedure

TIH w/DP, RTTS tool, and circulating valve. Set rotating head and picked up 3 joints DP. RU to flow test well. Set RTTS packer, opened circulating valve, circulated 5 bbl FW, 25 bbl Gel, and 73 bbl FW. Before fluid was completely displaced a Drill Pin change over sub started leaking in the threads. Reverse circulated 12.8 lb/gal mud back to surface and killed well. Installed new TIW valve that did not need change over subs. Unseated RTTS packer. Decided to leave well with pressure sensors on DP and annulus overnight to monitor pressures and SD till daylight. Did not want to leave 2700 psi at surface overnight. Loaded hole with 12.8 lb/gal mud. RD Dowell and install TIW valve. Monitored DP and Annular pressure. Will resume Operations at daylight.

Record DP pressure. Prep to reset packer and test well. Circulate FW to clean off packer. Set RTTS packer and open circulating tool. Pump circulated FW down to circulating tool at 10280'. Chain down DP and RU to flow test. Open well to separator and flow well. SI DP and let pressure build up. Open well to separator. SI DP for 1/2 to 1 1/2 hrs and then flow well. Total fluid recovered 23.5 bbl. SI DP for build up. NOTE: Set RTTS packer, Open circulating valve, Circulated 5 bbl FW, 25 bbl Gel, and 73 bbl FW.

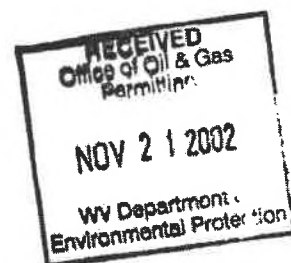
Attempting to get well to flow back to separator. Have been shutting in well to let pressure build up and then opening well to let flow. Have been shutting in for 1 1/2 to 4 hours at a time to let pressure build up and then flowing well. Pressure has varied from 160 to 350 psi depending on time shut in. Recovering 0.0 to 2.0 bbl of fluid at a time. Recovered 6.0 bbl of fluid in last 24 hours.

Cleaned mud and barite out of bottom of hole with coil tbg. At bottom of Drill Pipe picked up 1.4 MM of gas for a short time till the pressure above the tail pipe bled off, it then flowed at about 400mcf/d till half way out of the hole when it died. RD coil tbg unit. Opened well to pit. Well flowed a 1/2" to a 1" stream of FW till 8:00 PM when the well began flowing dry gas. Had a 15' flare for 30 minutes and then it started slowly decreasing to a 5' flare by report time.

Clean mud pits and mud plant. Flare well. Work Drill string, attempting to open ports on circulating tool. Open Drill Pipe to pit thru choke and flare. 9:30 AM; Took open flow w/digital manometer. Read 56 mcf/d. Put gas back to pit to flare it. Worked Drill string trying to get ports on circulating tool to open. Pulled up to 225K on string and moved it up hole 7'-8'. Got string to go back down to starting point circulating valve never did open. Believe differential pressure keeping circulating valve from opening. Mud system down to clean pits. Called Dowell to pump on drill string.

Clean mud pits. Flare well. 9:30 AM; Circulate mud in 210 bbl tanks and RU mud system. WO 10,000 lb Hammer Union iron. Reconfigure 10,000 lb line to choke manifold. RU and pressure test lines to 8,600 psi. Spot 60 bbl 12.4 lb mud and 60 bbl 10.2 lb brine down DP. Work Drill string to release RTTS packer. Worked 10' up hole. RU Dowell and pressured up to 2700 psi. Could not move fluid. Work Drill string to release RTTS packer. Worked another 10' up hole.

Pressured up on drill string to equalize pressure at circulating valve and packer to help release either. Worked string with pressure on it to get circulating valve open or to release packer. After circulating valve opened pumped 200 bbl of mud out of hole to pits and the rest of fluid to the pits. Released packer and worked it up and down the hole to free it up. Once packer freed up it pulled easily. When packer got on the floor the two rubber elements were worn badly and on top of the packer.



WR-35

DEEP
State of West Virginia

Date: May 13, 2002
API # 47-013-04394

Division of Environmental Protection
Section of Oil and Gas
Well Operator's Report of Well Work

1. Br 11 1-3-02
[Signature]

Farm name: Henry Cooper Operator Well No.: Speidel #1

LOCATION: Elevation: 1118' Quadrangle: Grantsville
District: Sherman County: Calhoun
Latitude: 1380' feet South of 38° DEG. 57' MIN. 0" SEC.
Longitude: 410' feet West of 81° DEG. 2' MIN. 30" SEC.

Company: Cabot Oil & Gas Corporation
900 Lee Street East, Suite 500
Charleston, WV 25301

Agent: Thomas S. Liberatore
Inspector: Ed Gainer
Permit Issued: 3/22/01
Well Work Commenced: 3/29/01
Well Work Completed: 2/11/02
Verbal Plugging _____
Permission granted on: _____
Rotary Cable _____
Total Depth (feet) 12,204'
Fresh Water Depths (ft) 745'
Salt Water Depths (ft) _____
Is coal being mined in area (Y / N)? N
Coal Depths (ft) _____

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill up Cu. Ft.
30"	37'	37'	1 cu yd
20"	305'	305'	630 sks
13 3/8"	2,232'	2,232'	1270 sks
9-5/8"	7,368'	7,368'	780 sks
DV tool on 9-5/8" @ 3524'-3521'			370 sks
7"	10,372'	10,372'	815 sks
2 7/8"		11,715'	

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Permitting
NOV 21 2002
WV Department of
Environmental Protection

OPEN FLOW DATA

Producing formation N.A. Pay zone depth (ft) N/A
Gas: Initial open flow N/A MCF/d Oil: Initial open flow N/A Bbl/d
Final open flow N/A MCF/d Final open flow N/A Bbl/d
Time of open flow between initial and final tests N/A Hours
Static rock pressure N/A psig (surface pressure after N/A Hours)

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JUN 16 2020
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Second producing Pay zone depth

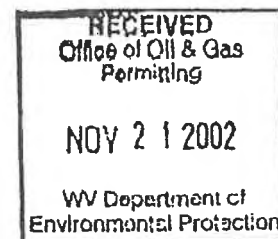
47-013-04349

H2S smell 7070' (40 ppm)

DV tool @ 3523' to 3521'

Open Hole Fraced with 14,580 gallons 28% HCl

FORMATION	TOP	BOTTOM	REMARKS
SILT/SAND	0	1050	
SALT SAND	1050	1500	
SILT/SAND	1500	1770	
MAXTON	1770	1920	OIL @ 1880'-1886'
LITTLE LIME	1920	1950	
GREENBRIER LIMESTONE	1950	2135	OIL @ 2080'
SANDSTONE	2135	2450	
UPPER DEVONIAN	2450	6200	OIL @ 2650', 3010'
ONONDAGA LIMESTONE	6200	6405	
ORISKANY	6405	6460	
HELDERBERG	6460	6890	
SALINA	6890	7700	H2S @ 7070'
NEWBURG	7700	7710	
McKENZIE	7710	8130	
KEEFER	8130	8160	
UPPER ROSE HILL	8160	8480	
CLINTON IRON ORE	8480	8500	
LOWER ROSE HILL	8500	8680	
TUSCARORA	8680	8815	
JUNIATA SHALE	8815	9615	
MARTINSBURG SHALE	9615	11850	
TRENTON	11850	11215	
BLACK RIVER	11215	11710	
CHAZY LIMESTONE	11710	12011'	

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JUN 16 2020

WV Department of
Environmental Protection



Cabot Oil & Gas Corporation

RECEIVED

OCT 22 2001

WV Oil and Gas
Conservation Commission

State of West Virginia
Oil & Gas Conservation Commission
1356 Hansford Street
Charleston, WV 25301

17 October, 2001

RE: Cabot Oil & Gas Corporation Well - Speidel #1
API # 47-013-04394 (Deep Well)
Calhoun County

Dear Sirs:

This letter is to inform the "Commission" that Cabot Oil & Gas Corporation will be using a downhole directional motor to drill a section of the Speidel #1 well. The motor is being used to correct significant well bore deviation and return it to a "near vertical condition".

This well was permitted as a vertical hole but due to geological conditions the well bore is deviating significantly from the planned vertical target. Efforts have been made to time drill and change bottom hole assemblies/bits in an effort to arrest the deviation and return the well to a more vertical condition. These efforts have been unsuccessful. The down hole motor will be run to return the well bore to a near vertical condition. Directional surveys will be taken on a regular basis to monitor the location of the well bore and ensure it remains within the limits of the permit.

If the Commission needs additional information or questions answered I can be reached at 304/347-1625.

Sincerely;

Douglas Gosnell
Senior Drilling Engineer
Cabot Oil & Gas Corporation

xc: Rod Biggs - Dominion Exploration & Production, Inc.
I. L. Morris - Waco Oil & Gas



Check All
 Location
 Production
 Stratigraphy
 Sample
 Logs
 Bm Hole Loc

[Table Descriptions](#)
[County Code Translations](#)
[Permit Numbering Series](#)
[Usage Notes](#)
[Contact Information](#)
[Disclaimer](#)
[WVGES Main](#)
[Pipeline-Plus New](#)

Well: County = 13 Permit = 04394 Report Time: Wednesday, June 17, 2020 10:35:21 AM

Location Information: [View Map](#)
 API 4701304394 COUNTY PERMIT TAX_DISTRICT QUAD_75 QUAD_15 LAT_DD LON_DD UTMN
 4701304394 Calhoun 4394 Sherman Grantsville Amoldsbun 38.954649 -81.0428 486291.5 4311744.8

There is no Bottom Hole Location data for this well

Owner Information:
 API 4701304394 CMP DT SURFIX STATUS SURFACE_OWNER WELL_NUM CO_NUM LEASE LEASE_NUM MINERAL_OWN OPERATOR_AT_COMPLETION PROP_YD PROP_TRGT_FIM TRF_EST_PR
 4701304394 21112002 Original Loc Completed Henry W Cooper Jr 1 Joe Shields III Cabot Oil & Gas Corp.

Completion Information:
 API 4701304394 CMP DT SPUD DT ELEV DATUM FIELD DEEPEST_FM DEEPEST_FMT INITIAL_CLASS FINAL_CLASS TYPE RIG CMP METHD TWD TMD NEW_FTG KOD G_BEF G_AFT O_BEF O_AFT NGL_BEF NGL_AFT P_BEF TI_BEF P_AFT TI_AFT BH_P_BEF
 4701304394 21112002 1118 Ground Level Unnamed CharvLs CharvLs New-Field/Wildcat Unsuccessful D/W/OI Show Rotary Address 12204 12204

Pay/Show/Water Information:
 API 4701304394 CMP DT ACTIVITY PRODUCT SECTION DEPTH_TOP FAL_TOP DEPTH_BOT FAL_BOT G_BEF G_AFT O_BEF O_AFT WATER_QNTRY
 4701304394 21112002 Water Fresh Water Vertical 1880 Maxton 1886 Maxton 745 Pennsylvania System
 4701304394 21112002 Show Oil Oil 2080 Big Line
 4701304394 21112002 Show Oil Oil 3010 Uder und/Bear/LPHURN
 4701304394 21112002 Water Sulfur Gas Vertical 7070 Salina
 4701304394 21112002 D/W None Vertical 11710 Bear River Gravel

Production Gas Information: (Volumes in Mcf) * 2019 data for H6A wells only. Other wells are incomplete at this time.
 API 4701304394 PRODUCING_OPERATOR PRO_YEAR ANNU_GAS JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DCM
 4701304394 Cabot Oil & Gas Corp. 2002 0 0 0 0 0 0 0 0 0 0 0

Production Oil Information: (Volumes in Bbl) ** some operators may have reported NGL under Oil * 2019 data for H6A wells only. Other wells are incomplete at this time.
 API 4701304394 PRODUCING_OPERATOR PRO_YEAR ANNU_OIL JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DCM
 4701304394 Cabot Oil & Gas Corp. 2002 0 0 0 0 0 0 0 0 0 0 0

There is no Production NGL data for this well ** some operators may have reported NGL under Oil

There is no Production Water data for this well

Stratigraphy Information:

API	SURFIX	FIM	FAL_QUALITY	DEPTH_TOP	DEPTH_QUALITY	THICKNESS	THICKNESS_QUALITY	ELEV DATUM
4701304394	Original Loc	Newburg	Well Record	1770	Responsible	150	Responsible	1118 Ground Level
4701304394	Original Loc	Little Lime	Well Record	1920	Responsible	30	Responsible	1118 Ground Level
4701304394	Original Loc	Price Fm & equivs	Well Record	1950	Responsible	205	Responsible	1118 Ground Level
4701304394	Original Loc	Oronodaga Ls	Well Record	6200	Responsible	55	Responsible	1118 Ground Level
4701304394	Original Loc	Helderberg	Well Record	6405	Responsible	430	Responsible	1118 Ground Level
4701304394	Original Loc	Salina	Well Record	6890	Responsible	810	Responsible	1118 Ground Level
4701304394	Original Loc	Mekanda Fm	Well Record	6890	Responsible	420	Responsible	1118 Ground Level
4701304394	Original Loc	Kester Sh	Well Record	7110	Responsible	50	Responsible	1118 Ground Level
4701304394	Original Loc	Rose Hill Fm	Well Record	8130	Responsible	520	Responsible	1118 Ground Level
4701304394	Original Loc	Jumina Fm	Well Record	8680	Responsible	135	Responsible	1118 Ground Level
4701304394	Original Loc	Marlburg Fm	Well Record	8615	Responsible	800	Responsible	1118 Ground Level
4701304394	Original Loc	Chazy Ls	Well Record	11710	Responsible	2235	Responsible	1118 Ground Level
4701304394	Original Loc	Trenton Group	Well Record	11850	Responsible		Responsible	1118 Ground Level

SHOULD BE 7700' NEWBURG.

Wireline (E-Log) Information:
 API 4701304394 LOG_TOP LOG_BOT DEEPEST_FAL LOGS_AVAILABLE SCAN DIGITIZED GR_TOP GR_BOT O_TOP O_BOT N_TOP N_BOT L_TOP L_BOT T_TOP T_BOT S_TOP S_BOT O_TOP O_BOT INCH2 INCH5 REDUCED KOP LOGAND ELEV_KB ELEV_OL ELEV_DP LOG_MSRD_FRON
 4701304394 2 12203 G.C.D.N.I.S.* N N 2 12195 7206 12020 7185 12007 7380 12020 43 12194 2 12203 Y N N 1136 1118 1135 113

Comment: *logs: caliper, tension, PE, den, por, & corr, delta rho, laterolog & QC, bit size, delta t shear & comp, SPH, peak coherence, AMP, TI, directional survey, cement bond log, micro imager, IHL.S, IHL.D.
 There is no Wireline (E-Log) Images available for download
 There is no Plugging data for this well
 There is no Sample data for this well

WW-4A
Revised 6-07

1) Date: June 12, 2020
2) Operator's Well Number
Speidel No 1
3) API Well No.: 47 - 013 - 4394

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

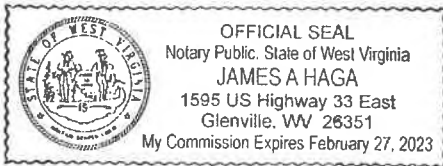
4) Surface Owner(s) to be served:		5) (a) Coal Operator	
(a) Name	Terry and Karen Shreve	Name	N/A
Address	1584 Road Fk Rd Grantsville, WV 26147	Address	
(b) Name		(b) Coal Owner(s) with Declaration	
Address		Name	N/A
		Address	
(c) Name		Name	
Address		Address	
6) Inspector	Doug Newlin	(c) Coal Lessee with Declaration	
Address	douglas.c.Newlin@wv.gov	Name	N/A
Telephone	1-304-932-8049	Address	

TO THE PERSONS NAMED ABOVE: You should have received this Form and the following documents:

- (1) The application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work and describes the well its and the plugging work order; and
- (2) The plat (surveyor's map) showing the well location on Form WW-6.

The reason you received these documents is that you have rights regarding the application which are summarized in the instructions on the reverses side. However, you are not required to take any action at all.

Take notice that under Chapter 22-6 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a permit to plug and abandon a well with the Chief of the Office of Oil and Gas, West Virginia Department of Environmental Protection, with respect to the well at the location described on the attached Application and depicted on the attached Form WW-6. Copies of this Notice, the Application, and the plat have been mailed by registered or certified mail or delivered by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of mailing or delivery to the Chief.



Well Operator Waco Oil & Gas Co., Inc.
 By: Stephen E Holloway *[Signature]*
 Its: Land Manager/Agent
 Address: P.O. Box 397
 Glenville, WV 26351
 Telephone: 1-304-462-5347

RECEIVED
Office of Oil and Gas

Subscribed and sworn before me this 15th day of June 2020
James A Haga Notary Public
 My Commission Expires Feb 27, 2023

JUN 16 2020
WV Department of Environmental Protection

Oil and Gas Privacy Notice

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 depprivacyofficer@wv.gov.

SURFACE OWNER WAIVER

Operator's Well
Number

Speidel No 1

INSTRUCTIONS TO SURFACE OWNERS NAMED ON PAGE WW4-A

The well operator named on page WW-4A is applying for a permit from the State to plug and abandon a well. (Note: If the surface tract is owned by more than three persons, then these materials were served on you because your name appeared on the Sheriff's tax ticket on the land or because you actually occupy the surface tract. In either case, you may be the only owner who will actually receive these materials.) See Chapter 22 of the West Virginia Code. Well work permits are valid for 24 months. If you do not own any interest in the surface tract, please forward these materials to the true owner immediately if you know who it is. Also, please notify the well operator and the Office of Oil and Gas.

**NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.
WHERE TO FILE COMMENTS AND OBTAIN ADDITIONAL INFORMATION:**

Chief, Office of Oil and Gas
Department of Environmental Protection
601 57th St. SE
Charleston, WV 25304
(304) 926-0450

Time Limits and methods for filing comments. The law requires these materials to be served on or before the date the operator files his Application. You have **FIVE (5) DAYS** after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

Comments must be in writing. Your comments must include your name, address and telephone number, the well operator's name and well number and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

The Chief has the power to deny or condition a well work permit based on comments on the following grounds:

- 1) The proposed well work will constitute a hazard to the safety of persons.
- 2) The soil erosion and sediment control plan is not adequate or effective;
- 3) Damage would occur to publicly owned lands or resources;
- 4) The proposed well work fails to protect fresh water sources or supplies;
- 5) The applicant has committed a substantial violation of a previous permit or a substantial violation of one or more of the rules promulgated under Chapter 22, and has failed to abate or seek review of the violation...".

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Office of Oil and Gas
JUN 16 2020

WV Department of
Environmental Protection

If you want a copy of the permit as it is issued or a copy of the order denying the permit, you should request a copy from the Chief.

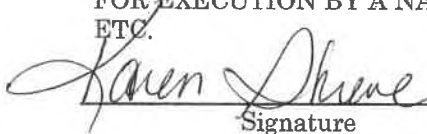
VOLUNTARY STATEMENT OF NO OBJECTION

I hereby state that I have read the instructions to surface owners and that I have received copies of a Notice and Application For A Permit To Plug And Abandon on Forms WW-4A and WW-4B, and a survey plat.

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials.

**FOR EXECUTION BY A NATURAL PERSON
ETC.**

FOR EXECUTION BY A CORPORATION,


Signature

Date 6/15/20

Name _____
By _____
Its _____

Date

Signature

Date

47-013-04394 P

WW-9
(5/16)

API Number 47 - 013 - 04394
Operator's Well No. Spindel No. 1

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS
FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Waco Oil & Gas Co., Inc. OP Code 306294

Watershed (HUC 10) Road Fork Quadrangle Grantsville 7.5'

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 **NO PIT WILL BE USED.**

If so, please describe anticipated pit waste: Cement water from plugging.

**500 BBL LAY DOWN TANK
WILL BE USED TO CONTAIN
WELL EFFLUENT.**
gwn
6/22/2020
SEE EMAIL
ATTACHED.

Will a synthetic liner be used in the pit? Yes No If so, what ml.?

Proposed Disposal Method For Treated Pit Wastes:

- Land Application (if selected provide a completed form WW-9-GPP)
- X Underground Injection (UIC Permit Number 2008510192)
- Reuse (at API Number _____)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain _____)

Will closed loop system be used? If so, describe: _____

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. _____

-If oil based, what type? Synthetic, petroleum, etc. _____

Additives to be used in drilling medium? _____

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. _____

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) _____

-Landfill or offsite name/permit number? _____

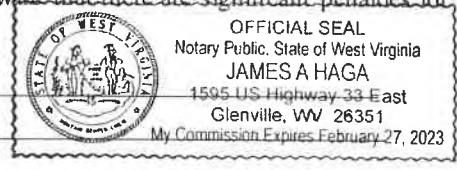
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Office of Oil and Gas
JUN 16 2020

Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on April 1, 2016, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature [Signature]
Company Official (Typed Name) Stephen E Holloway
Company Official Title Land Manager/Agent



Subscribed and sworn before me this 15th day of JUNE, 2020

James A Haga Notary Public

My commission expires Feb 27, 2023

Operator's Well No. _____

Proposed Revegetation Treatment: Acres Disturbed No disturbance..pad is rock. Prevegetation pH _____

Lime _____ Tons/acre or to correct to pH _____

Fertilizer type _____

Fertilizer amount _____ lbs/acre

Mulch _____ Tons/acre

Seed Mixtures

Temporary

Permanent

Seed Type lbs/acre

Seed Type lbs/acre

_____	_____
_____	_____
_____	_____

Attach:

Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, provide water volume, include dimensions (L, W, D) of the pit, and dimensions (L, W), and area in acres, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: _____

Comments: _____

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Office of Oil and Gas

JUN 16 2020

WV Department of
Environmental Protection

Title: _____ Date: _____

Field Reviewed? () Yes () No

McLaughlin, Jeffrey W

From: Steve Holloway <steve.holloway@wacowv.com>
Sent: Friday, June 19, 2020 8:55 AM
To: McLaughlin, Jeffrey W
Subject: [External] Speidel No. 1

CAUTION: External email. Do not click links or open attachments unless you verify sender.

Jeff:

I spoke with the consultant engineer at the site and he is telling me there is no plan to utilize a pit. They have a 500 bbl lay down tank on site to contain any fluid. Let me know what else you might need from me.

Thanks,
Steve

Waco Oil & Gas Co., Inc.

Stephen E. Holloway
Land Manager
P.O. Box 397
Glennville, WV 26351
Office Phone: (304) 462-5741 Ext. 221
Fax: (304) 462-8670
Cell: (304) 678-9988
E-Mail: steve.holloway@wacowv.com

WW-9- GPP
Rev. 5/16

N/A

Page 1 of 2

API Number 47 - _____ - _____
Operator's Well No. _____

6/22/2020

NO PIT WILL BE USED.

JWM

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS
GROUNDWATER PROTECTION PLAN

Operator Name: Waco Oil & Gas Co., Inc.

Watershed (HUC 10): Road Fork Quad: Grantsville 7.5'

Farm Name: _____

1. List the procedures used for the treatment and discharge of fluids. Include a list of all operations that could contaminate the groundwater.

[Empty box for response to question 1]

2. Describe procedures and equipment used to protect groundwater quality from the list of potential contaminant sources above.

Pit Liner to be used. Plugging operation will not affect ground water.

3. List the closest water body, distance to closest water body, and distance from closest Well Head Protection Area to the discharge area.

2000 plus feet to nearest stream and 2500 feet plus to nearest water well.

4. Summarize all activities at your facility that are already regulated for groundwater protection.

[Empty box for response to question 4]

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Office of Oil and Gas

JUN 16 2020

WV Department of
Environmental Protection

5. Discuss any existing groundwater quality data for your facility or an adjacent property.

N/A

WW-9- GPP
Rev. 5/16

No PPT WILL BE USED.
6/22/2020 JMM

Page 2 of 2
API Number 47 - 013 - 04394
Operator's Well No. _____

[Empty rectangular box for response]

6. Provide a statement that no waste material will be used for deicing or fill material on the property.

[Empty rectangular box for response]

7. Describe the groundwater protection instruction and training to be provided to the employees. Job procedures shall provide direction on how to prevent groundwater contamination.

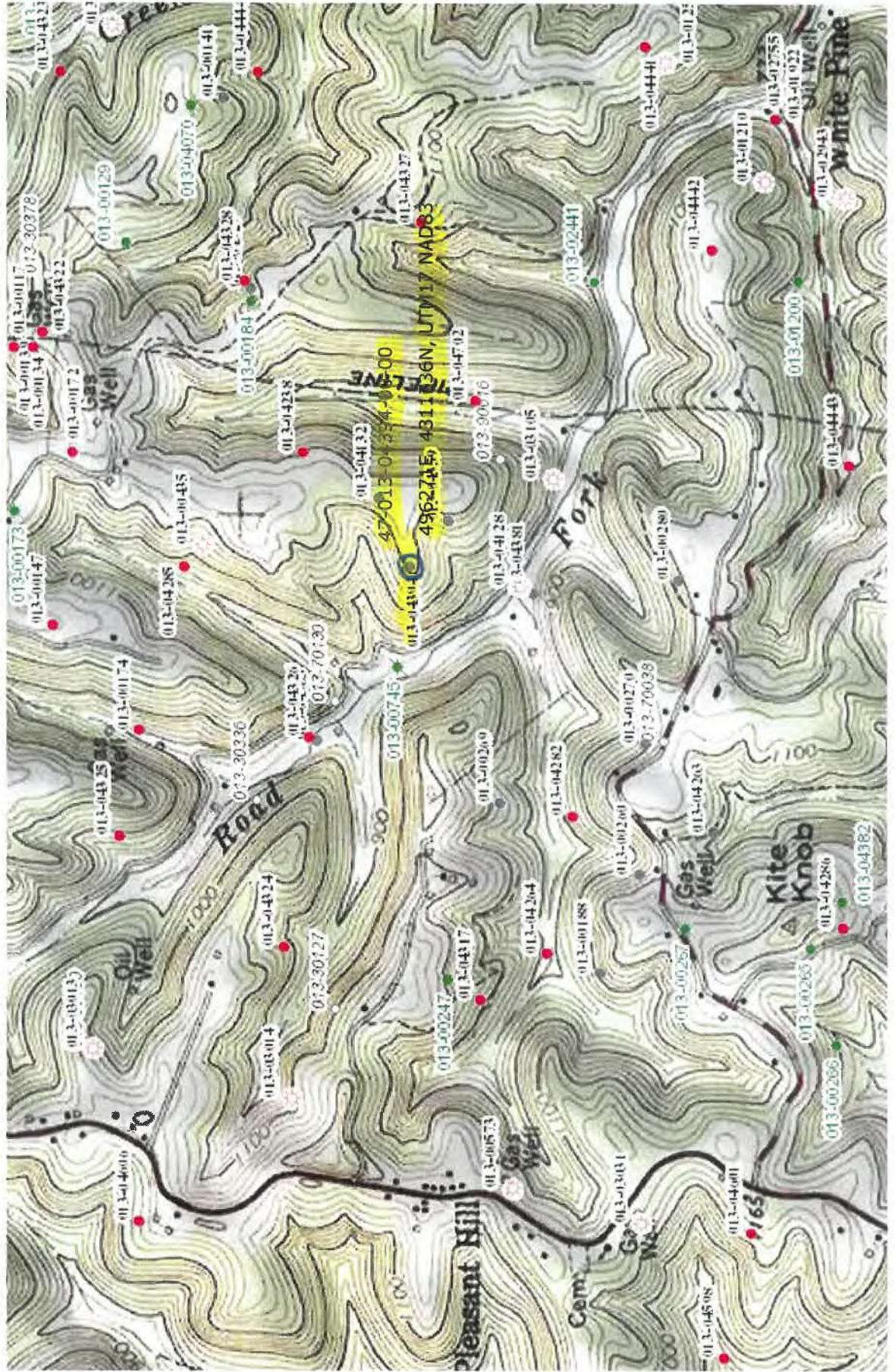
[Empty rectangular box for response]

8. Provide provisions and frequency for inspections of all GPP elements and equipment.

[Empty rectangular box for response]

Signature: [Handwritten Signature]

Date: 6-12-2020



WW-7
8-30-06



West Virginia Department of Environmental Protection
Office of Oil and Gas

WELL LOCATION FORM: GPS

API: 47-013-04394 WELL NO.: Speidel No 1

FARM NAME: Terry and Karen Shreeve

RESPONSIBLE PARTY NAME: Waco Oil & Gas Co., Inc.

COUNTY: Calhoun DISTRICT: Sherman

QUADRANGLE: Grantsville 7.5'

SURFACE OWNER: Terry and Karen Shreeve

ROYALTY OWNER: Joe Speidel III

UTM GPS NORTHING: 4311736 N
711,723

UTM GPS EASTING: 4987721 GPS ELEVATION: 1084'
1118'

The Responsible Party named above has chosen to submit GPS coordinates in lieu of preparing a new well location plat for a plugging permit or assigned API number on the above well. The Office of Oil and Gas will not accept GPS coordinates that do not meet the following requirements:

1. Datum: NAD 1983, Zone: 17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) – meters.
2. Accuracy to Datum – 3.05 meters
3. Data Collection Method:

Survey grade GPS ____ : Post Processed Differential ____
Real-Time Differential ____

Mapping Grade GPS ____ : Post Processed Differential ____
Real-Time Differential ____

4. Letter size copy of the topography map showing the well location.

I the undersigned, hereby certify this data is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Office of Oil and Gas.

[Signature] [Title] 5-12-2020
Signature Title Date

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Office of Oil and Gas
JUN 16 2020
WV Department of
Environmental Protection