

Submit a Copy To Appropriate District Office
 District I – (575) 393-6161
 1625 N. French Dr., Hobbs, NM 88240
 District II – (575) 748-1283
 811 S. First St., Artesia, NM 88210
 District III – (505) 334-6178
 1000 Rio Brazos Rd., Aztec, NM 87410
 District IV – (505) 476-3460
 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
 Energy, Minerals and Natural Resources

Form C-103
 Revised July 18, 2013

OIL CONSERVATION DIVISION
 1220 South St. Francis Dr.
 Santa Fe, NM 87505

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)		WELL API NO. 30-025-36866
1. Type of Well: Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/>		5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
2. Name of Operator Armstrong Energy Corporation		6. State Oil & Gas Lease No.
3. Address of Operator PO Box 1973, Roswell, NM 88202-1973		7. Lease Name or Unit Agreement Name Ruth 20
4. Well Location Unit Letter <u>D</u> : <u>523</u> feet from the <u>NORTH</u> line and <u>841</u> feet from the <u>WEST</u> line Section <u>20</u> Township <u>16S</u> Range <u>36 E</u> NMPM County <u>LEA</u>		8. Well Number <u>#2</u>
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3940 GR		9. OGRID Number 1092
		10. Pool name or Wildcat Shoebar, Wolfcamp, North

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input checked="" type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	P AND A <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	MULTIPLE COMPL <input type="checkbox"/>	CASING/CEMENT JOB <input type="checkbox"/>	
DOWNHOLE COMMINGLE <input type="checkbox"/>			
CLOSED-LOOP SYSTEM <input type="checkbox"/>			
OTHER: <input type="checkbox"/>		OTHER: <input type="checkbox"/>	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

****PLEASE SEE ATTACHED ****

Spud Date:

10/2/2004

Rig Release Date:

11/1/2004

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Kyle Alpers TITLE VP Engineering DATE 02/09/2021

Type or print name Kyle Alpers E-mail address: kalpers@aecnm.com PHONE: 575-625-2222

For State Use Only

APPROVED

BY: _____ TITLE _____ DATE _____ Conditions
 of Approval (if any):

11/9/20 RU Flying A frac crew, FB equipment, etc.

11/10/20 Load casing, test casing, flange, FB equip. PU guns and TIH, tag CIBP @ 11,430', pick up and shoot stage 1 with 3 1/8" guns, 6spf, 60° phasing, 1' guns, 36 shots: 11412', 11404', 11387', 11370', 11357', 11339'. Test injection rate into perfs, broke down @ 4200psi, suspect bottom perfs.

11/11/20 TIH and tag CIBP @ 11,430', still there. Set CBP @ 11,365' between 4th and 5th set of stage 1 perfs. TOO H and load hole. Pressure up to 4215psi and lost pressure again. PU another CBP and TIH, tag CBP low @ 11,413' (just below lowest perf). Set CBP @ 11334', above shallowest stage 1 perf, TOO H. RU WL and dump bail 9' of sand on top of CBP, TOO H, redress bailer, and TIH and dump 12' cement on top of sand. TOO H and repeat with 12' more cement. TOO H. SD.

11/12/20 RU WL and RIH w/CIBP & 6x1' guns. Tag @ 11,304', perf 11255', 11237', 11214', 11205' & 11194'. TOO H & verify all guns fired. Open well for stage 2 frac. Frac stage 2 w/286,400lb total proppant and 5,084bbl clean fluid. Avg # 5708psi, avg rate 44bpm. ISIP 5128, 5min 4879, 10min 4838, 15min 4811. LLTR after stage 2 - 5133bbl. RU WL w/RPPSE 438PSX frac plug and 7x1' guns, 6spf 60° phasing. Set frac plug @ 11,189', test, and perf stage 3: 11,180', 11169', 11159', 11150', 11141', 11125', 11109'. TOO H, verify all shots fired. Open well for stage 3 frac. Frac stage 3 w/295,200lbs proppant and 4612bbl clean fluid. Avg # 5766psi, avg rate 44bpm. ISIP 5365, 5min 5135, 10min 5101. LLTR after stage 3 -9745bbl. RU WL w/frac plug and 6x1' guns, set frac plug @ 11101', test and perforate stage 4 @ 11090', 11079', 11042', 11027', 11012', 11003'. POOH verify all shots fired, open well for stage 4 frac. Frac stage 4 with 295,340lbs proppant and 5018bbl clean fluid. Avg # 5906psi, avg rate 39bpm. ISIP 6103, 5min 5709, 10min 5587, 15min 5516. LLTR after stage 4 - 14763bbl. RU WL & RIH w/frac plug and 6x1' guns. Set frac plug @ 10980' and test, perf stage 5 @ 10956', 10910', 10890', 10875', 10857', 10840'. POOH verify all shots fired. Secure well and SD.

11/13/20 Open well for stage 5 frac. Frac stage 5 w/241920lbs proppant and 6725bbl clean fluid. Avg # 5368psi, avg rate 37bpm. ISIP 5263, 5min 4872, 10min 4784, 15min 4751. RU WL RIH w/frac plug and 6x1' guns. Set frac plug @ 10750', test, and perf stage 6 @ 10700', 10666', 10597', 10581', 10568', 10525'. POOH & verify all shots fired, open well for stage 6 frac. Frac stage 6 w/203320lbs proppant and 5050bbl clean fluid. Avg# 5803psi avg rate 45bpm. ISIP 5516, 5min 5168. LLTR after stage 6 - 27388bbl. RD and release frac crew, ND crown valve and goat head. Secure well, SD for night.

11/14/20 RU CT and drill out frac plugs.

11/15-25/20 Flowback and swab test well, put on rod pump. Discuss completion and allowable filings with Paul Kautz OCD via phone call, he indicated to wait until all testing was done.

11/26/20 - 1/11/21 Production test well, analyze tracer return data from frac. Determined that upper two stages were contributing excessive water and their contributed oil cut was decreasing over time. Decision made to isolate upper two stages and produce lower three. Initial plan is to pump under a packer to verify before semi-permanently isolating upper stages with dual packer scab liner assembly.

1/12/21 RU PU TOO H w/pump and rods. SDFN.

1/13/21 ND WH, release TAC, NU BOP, TOO H w/2 7/8" tubing. TIH w/4 3/4" roller cone and casing scraper. Secure well, SDFN.

1/14/21 TIH to 11,000', no obstructions, TOO H and LD bit and scraper, PU 5 1/2" Arrowset packer with on/off tool, SN w 12' gas anchor and TIH. ND BOP, set packer and NU WH. Bottom of packer @ 10979'. NU pumping tee, secure well, SDFN.

1/15/21 TIH w/pump and rods, connect surface equipment, hang head on, long stroke and space out. Release rig and RD PU.

1/16-27/21 Pump test lower three intervals under packer, verify validity of isolating upper two stages, make decision to isolate Stages 5 & 6 with dual packer scab liner.

1/28/21 MIRU PU, prep to pull rods. TOO H w/rods and pump, send pump to shop. Prep to pull tbg and ND WH. NUBOP, NU rig floor, secure well SDFN.

1/29/21 Release packer and TOO H w/tbg and packer. Tally 4" 10.46# L80 FJ4 scab liner. MIRU casing crew. PU bottom packer, XO & 1 jt 4" casing. Rig crew damaged connection on XO. W/O new XO & SDFD.

1/30/21 SDFW

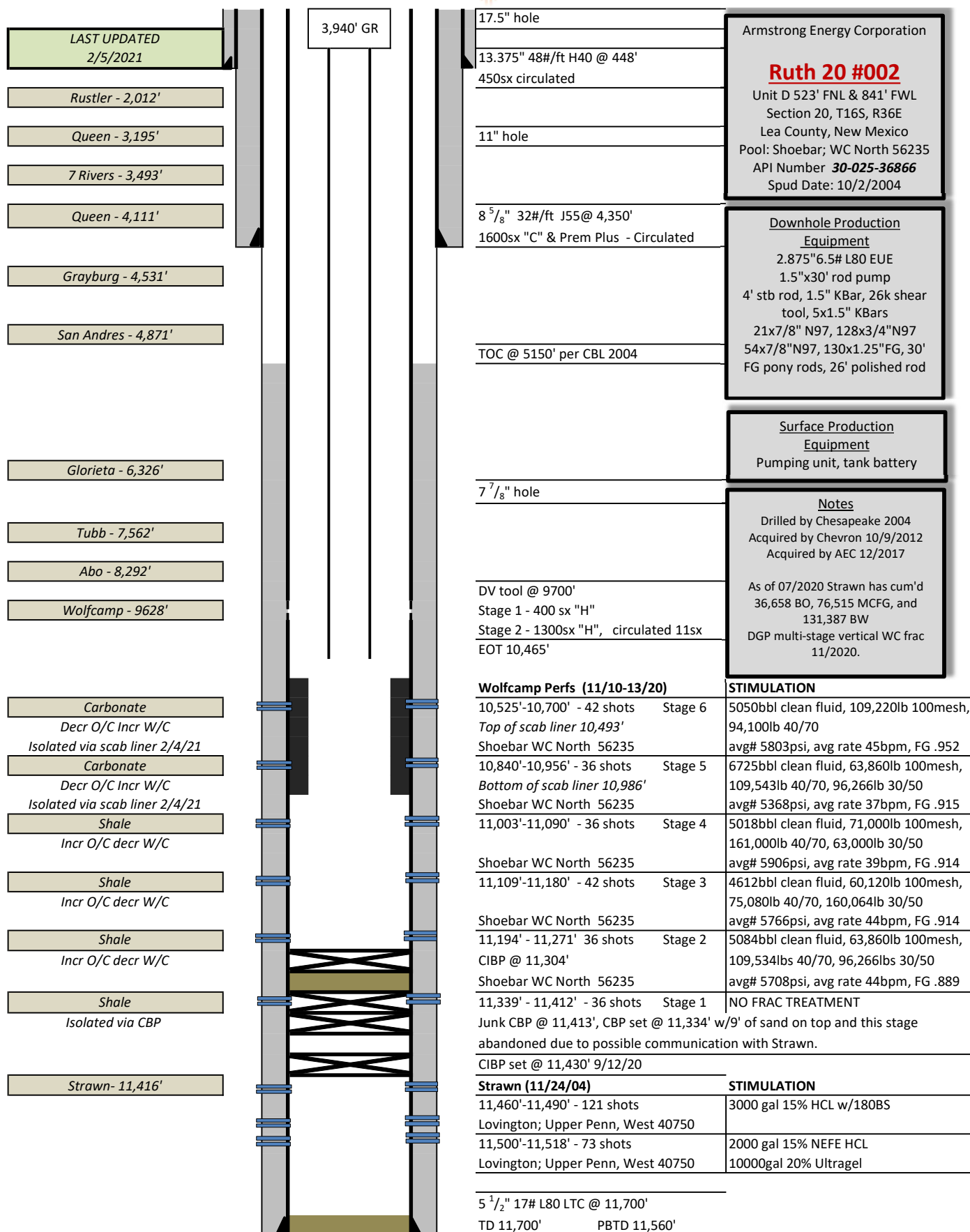
1/31/21 SDFW

2/1/21 RU casing crew, NU bottom scab liner packer, XO, 13 jts 4" casing, XO & upper liner packer. PU and begin RIH with scab liner assembly. While running in, collar hung up in casing head, jarred, and release liner, dropping it to bottom of the well. TIH w/tbg to fish liner, retrieve with no damage, break out packers and send off for new elements. SDFN.

2/2/21 PU packers and liner and RIH on tubing, total length of liner 487.33'. Set lower and upper packers, release from liner. SDFN.

2/3/21 MIRU tbg test and kill truck. TIH w/2 7/8" tubing testing going in. PU two extra jts to tag liner, tag @ 10490.82'. Middle of top packer element @ 10493.02', middle of bottom packer element @ 10986.47'. Bottom of packer @ 10989.17'. LD two tag joints, ND 10k tbg head, install 5k tbg head. Set TAC w/18pts tension, SN @ 10303.17' and EOT @ 10465.15'. NU flange and prep to run pump & rods. Secure well, SDFN.

2/4/21 PU & RIH w/pump & rods, space out, ND rod equipment. NU FL to WH, hang on & start pump jack. RDMO pulling unit.



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CONDITIONS

Action 26385

CONDITIONS

Operator: ARMSTRONG ENERGY CORP P.O. Box 1973 Roswell, NM 88202	OGRID: 1092
	Action Number: 26385
	Action Type: [C-103] Sub. Workover (C-103R)

CONDITIONS

Created By	Condition	Condition Date
ksimmons	None	6/2/2021