

Form 3160-5 (June 2019)	UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT	FORM APPROVED OMB No. 1004-0137 Expires: January 31, 2025
SUNDRY NOTICES AND REPORTS ON WELLS <i>Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.</i>		5. Lease Serial No. NM-0276225
		6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 2		7. If Unit of CA/Agreement, Name and/or No. Cato San Andres Unit
1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		8. Well Name and No. Cato San Andres Unit #179
2. Name of Operator Shell Oil Company (Western Division)		9. API Well No. 30-005-20207
3a. Address P.O. Box 576, Houston, TX 77210	3b. Phone No. (include area code) (832) 337-2434	10. Field and Pool or Exploratory Area Cato; San Andres
4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description) Section P33 Township 8S Range 30E		11. Country or Parish, State Chaves County, New Mexico, USA

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA					
TYPE OF SUBMISSION		TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off	
	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity	
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other	
	<input type="checkbox"/> Change Plans	<input checked="" type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon		
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal		

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be perfonned or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleation in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has detennined that the site is ready for final inspection.)

Please refer to attached Plug and Abandonment End of Well Report

Accepted for Record

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed) Samantha Baker	Title SGWS Legacy Program Manager
Signature <i>Samantha Baker</i>	Date 01/27/2025

THE SPACE FOR FEDERAL OR STATE OFFICE USE		
Approved by	Title Petroleum Engineer	Date 01/28/2025
	Office RFO	
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.		

Title 18 U.S.C Section 1001 and Title 43 U.S.C Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local area or regional procedures and practices, are either shown below, will be issued by or may be obtained from the local Federal office.

SPECIFIC INSTRUCTIONS

Item 4 - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

Item 13: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment. If the proposal will involve **hydraulic fracturing operations**, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

The privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c) and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

LANGAN**Technical
Memorandum**

300 Union Boulevard, Suite 405 Lakewood, CO 80228 T: 303.262.2000 F: 303.262.2001

To: BLM

From: Langan

Info: Shell

Date: January 15, 2024

Re: Plug and Abandonment – End of Well Report
Cato San Andres Unit #179 / API 30-005-20207
Section P33, Township 8S, Range 30E
Langan Project No.: 781014301

Work Summary:

8/16/24 – Arrived at 179 location. Attended safety meeting and conduct air quality check. Open 4 1/2 tubing with 0 psi and 0 gas readings. Trench area for hot tap operations. Begin to fill with 5 bbl's H₂O. Weld collar on 2" bull plug on surface casing, let cool, install 1 - 2" 2000 psi ball valve. Rig up Hot Tap machine. Test to 200 psi. Begin Hot tap operations with 1/2" bit. Pass through bull plug. Retract bit. Small amount of non-recordable pressure with CO readings of 15 ppm. Rig down Hot tap machine. Open ball valve and vent pressure. Install tapped bull plug. Cut 4 1/2" casing above wellhead. 4 1/2" casing in very poor condition with holes all the way through pipe body. Weld on slip collar to top plate on casing head. Weld internally to pipe. Let cool. Remove bull plug from opposite side of hot tap. Install 2 - 2" 2000 psi ball valves and tapped plug. Begin installation of 4 1/2" swedge + 2 - 2" 2000 psi ball valves on 4 1/2".

10/15/24 – Held pre-work safety meeting. Inspected equipment and work areas. Well pad undergoing leveling and clean up, use this time to clean up previous location and scout other 11 locations. Move WOR & support equipment on. Rig up WOR and spot in equipment. Secure equipment & SDFN.

10/16/24 – Held pre-work safety meeting. Inspected equipment and work areas. Continue to rig up WOR equipment. Pump 20 bbls down tubing. Well on vacuum, monitor for 30 minutes. NU BOP & pressure test. Unload tubing on racks, drift & tally. Make up 3.750" tri-cone bit & RIH w/ tubing to tag. Tag @ 1013' w/ 31 joints + 10'. Lay down joint # 32. Rig up power swivel and hang

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in derrick. POOH w/ 31 joints to check fluid level and bit. (Fluid level @ 409'. Bit & bit sub plugged with formation and metal chunks) Shut well in & SDFN.

10/17/24 – Held pre-work safety meeting. Inspected equipment and work areas. Check pressures. 4.5" = 0 psi. 8.625" = 0 psi. Make up 3-5/8" junk mill & RIH w/ 30 joints of tubing, 40' above last tag. Pick up power swivel and prep to mill/wash down. Begin pumping 100 bbls without any circulation up the 4.5" or 8.625", make call to engineer. RIH & tag @ 980' with no circulation. Shut pump down. POOH w/ tubing. Make up mule shoe and RIH to top of tag @ 980'. RU wireline & prep to RIH w/ camera. RIH w/ camera. Get camera to bottom of tubing and begin pumping @ 1.5 bbls/min. A couple small holes in 4.5" @ 980+/-'. Could not see anything below. POOH w/ wireline camera. RIH to tag. EOT @ 1024'. Break circulation up 9-5/8' & 4.5" with 10bbls. WL RIH w/ camera. Tagged sediment @ 1028'. Still in 4.5" casing. BLM/state recommends trying to wash deeper, since we know we are still in casing. POOH w/ wireline and RD WL. POOH w/ tubing and mule shoe. Make up 3-3/4" tri-cone bit and RIH to tag. Pick up power swivel and prep to mill/wash down. EOT @ 1003'. Begin circulating. Tagged solid at 1013' again. Power swivel torquing up and bouncing around like we are on metal again. POOH. Make up 3.5" tri-cone bit and RIH. Tag @ 990'. POOH. Shut well in. SDFN.

10/18/24 - Held pre-work safety meeting. Inspected equipment and work areas. Check pressures. 4.5" = 0 psi. 8.625" = 0 psi. Make up 3.5" tri-cone bit and RIH. Tag @ 900' while watching tubing rotate to the right on its own. Seems like we are going outside casing. Circulate wellbore. Took 18 bbls to break circulation. Continue circulating, make call to Shell supervisors. Decision made to run camera again. Circulate wellbore and wait on Wireline. RU wireline and prep to RIH w/ camera. Stop circulating. POOH w/ 3.5" bit and tubing. RIH with WL camera in 4.5" casing. Looks like good casing to 900+/-' No casing from 900' - 905'. POOH w/ WL. RD WL & shut well in. Plan to have cementers on location and rigged up first thing in morning. RIH w/ 3.06" notched collar and get as deep as we can, and pump cement plug #1. SDFN.

10/19/24 – Held pre-work safety meeting. Inspected equipment and work areas. Check pressures. 4.5" = 0 psi. 8.625" = 0 psi. Make up 3.06" notched collar and RIH. Cementers finish

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rigging up. Tag @ 1024'. RU power swivel and break circulation with 24 bbls. Attempt to washdown, broke through obstruction @ 1024'. Washed down to 1036' and lost circulation. Continue pumping to establish circulation again. Got circulation back with 43 bbls away. Return fluid: weight=8.4ppg, PH=7, Chlorides=500, Sulphates=400. Continue washing down. EOT @ 1056'. No hole being made. Getting back formation. Pick up and circulate wellbore. Make calls and wait on orders. POOH w/ tubing and notched collar. Shut well in & SDFN. Decision made to get 3-3/4" tapered and string mill out to location and try to open restriction at 900'. Then RIH with tri-cone bit to get deeper.

10/20/24 – Attempt to get to site, roads flooded and muddy. Due to safety concerns work cancelled for the day.

10/21/24 – Held pre-work safety meeting. Inspected equipment and work areas. Check pressures. 4.5"= 0 psi. 8.625"= 0 psi. Make up 3.75" tapered mill & 3.75" string mill. RIH w/ tubing to tag. EOT @ 914'. Did not see anything at 900-905'. Pick up 10' pup joint. RU power swivel. Broke circulation w/ 28 bbls away. Begin working EOT 882'-924. After working several times, finally tagged at 904'. Begin milling. Seeing a tag up & down now. Continue milling. Worked mills through restriction many times. Roughly 1 out of every 10 times we are seeing weight and torque differential. Stop rotating and work tubing up & down with same result. RD power swivel & POOH w/ mills & tubing. Make up 3.50" tri-cone bit & RIH. Get past restriction @ 900' & tag @ 947'. RU power swivel. Break circulation w/ 5 bbls. Begin washing/drilling down. EOT @ 1072'. Lost circulation. Took 60 bbls to regain circulation. Continue washing/drilling. Stacked out @ 1056', again. Keep losing hole. EOT @ 1041'. Continue circulating and washing down. EOT @ 1056'. Continue to attempt and wash/drill down. EOT @ 1105'. Wellbore clean. Rack back swivel & POOH w/ tubing. Out of hole. Shut well in & SDFN.

10/22/24 – Held pre-work safety meeting. Inspected equipment and work areas, check pressures. 4.5"= 0 psi. 8.625"= 0 psi. Make up 3.5" tri-cone bit and RIH to tag. Tag and tubing rotated at 954'. Pick up and turn tubing with pipe wrench and fall through. Between 954'-1054' had to rotate with pipe wrench 5 times to fall through. Solid tag @ 1054'. Break circulation w/ 48

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bbls away. Shut down and rig up power swivel. Begin washing/drilling down. EOT @ 1096'. Began torquing up. Pick up and still torquing up. Feels like a piece of metal alongside the tubing. Begin swiveling out of hole to attempt to get debris below the bit. Torque fell off. Continue in hole. Back to 1072'. Swap out saver sub and continue washing/drilling down. EOT @ 1105'. Continue washing/drilling down. EOT @ 1331'. Circulate wellbore to try to stop u-tube. Continue washing/drilling down. EOT @ 2500'. Circulate wellbore clean. Return fluid: weight= 9.5ppg, Sulphates= 200, Chlorides= 600 & PH=7. Hang swivel back and POOH w/ bit & tubing. Out of hole. Pulled hard the last 1200'. Once out of hole, found last joint was severely cork screwed. 3.5" bit looked good. Shut well in and SDFN.

10/23/24 - Held pre-work safety meeting. Inspected equipment and work areas, check pressures. 4.5"= 0 psi. 8.625"= 0 psi. (both on vacuum) LD 2 damaged joints and replace with 2 new joints. Make up 3.50" tri-cone bit and RIH to tag. Jt# 35 began rotating while RIH. Tagged solid @ 1115'. Acts like we are going outside 4.5" casing. Picked up and tried turning tubing w/ pipe wrench to fall into 4.5" casing. No positive results. RU power swivel. Break circulation w/ 27 bbls. Begin to wash/drill down to 2529'. BLM approval to pump cement. Prep to pump 46 sacks of cement with EOT @ 2529'. Pump cement plug #1. Pump 10 bbls FW spacer + 46 sacks type 1/2 cement w/1.18 yield @ 15.6 ppg w/ 2% calcium chloride + 7 bbls displacement. POOH with tubing. Reverse out with 20 bbls @ 1900'. Continue POOH. (Estimated plug: 1929' - 2529'. 608' plug) POOH w/ tubing. LD 56 joints and stand back 22 in derrick. 78 joints total. NOTE: Tubing pulling jerky again. Possible bent joint again. Out of hole w/ 78 joints. Shut well in & SDFN.

10/24/24 – Held pre-work safety meeting. Inspected equipment and work areas, checked WHP = 0 psi RIH w/ 3.5" Tri-cone bit BHA & workstring from derrick (22jts), PU jts from working racks, tagged at 1136'KB and worked through, tagged at 1493'KB and worked through, tagged at 1949' and worked through, tagged TOC w/ jt #75 (14' out) at 2417'KB (112' gain). RU to circulate wellbore, broke circulation w/ 8 bbls of FW, pumped 27 bbls FW. RU power swivel to confirm solid tag (TOC), discussed plan forward, RD power swivel. Pumped cement plug #1 stg 2. Pumped 10 bbls FW spacer + 46 sacks type I/II cement w/1.18 yield @ 15.6 ppg w/ 2% calcium chloride + 6.5 bbls displacement. POOH with workstring. (Estimated plug: 2417' - 1817' (600'

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plug). WOC. RIH w/ 3.5" Tri-cone bit BHA & workstring, tagged TOC at 2330'KB (87' gain) Circulated wellbore, broke circulation w/ 8 bbls of FW, pumped 24 bbls of FW. Pumped cement plug #1 stg 3. Pumped 10 bbls FW spacer + 46 sacks type I/II cement w/1.18 yield @ 15.6 ppg w/ 2% calcium chloride + 6.2 bbls displacement. POOH with workstring. (Estimated plug: 2330' - 1730' (600' plug). Closed BOP blind rams, closed csg outlet valves, secured well, SDFN.

10/25/24 – Held pre-work safety meeting. Inspected equipment and work areas, checked WHP = 0 psi. RIH w/ tag tool BHA & workstring, worked through restriction at 1136', noticed soft tag every collar beginning at 1622'KB, tagged TOC at 2264'KB (66' gain). RU to circulate wellbore, broke circulation w/ 12 bbls of FW, circulated 28 bbls total FW. Prep to pump cement plug, Pumped cement plug #1 stg 4. Pumped 10 bbls FW spacer + 46 sacks type I/II cement w/1.18 yield @ 15.6 ppg w/ 2% calcium chloride at 1.6 bpm w/ 110 psi, pumped 6.0 bbls FW displacement at 3 bpm w/ 60 psi., shut down pump, POOH with workstring. (Estimated 600 plug: 2264' - 1664'). WOC, POOH w/ workstring RIH w/ tag tool BHA & workstring, noticed soft tag every collar beginning at 1622'KB, tagged TOC at 2192'KB (72' gain). RU to circulate wellbore, broke circulation w/ 11 bbls of FW, shut down pump to discuss plan forward Decision made to pump gel spacer. Began NPT Drake for vis cup, POOH w/ 10 stds to derrick to wait for vis cup. POOH wet to derrick w/ workstring. Closed BOP blind rams, closed csg outlet valves, SDFN.

10/26/24 – Held pre-work safety meeting. Inspected equipment and work areas, checked WHP = SICP 0 psi, 9 5/8" Vacuum. Resumed NPT Drake - RIH w/ Tag Tool BHA & 2 3/8" 8RD EUE workstring from derrick. Hard tag at 1055'KB Jt #33, worked through restriction, lined up pump to forward circulate, pumped 2 bbls FW, tbg pressured to 800 psi, worked tbg to free plug, continued RIH to 2172'KB. Lined up pump to forward circulate wellbore, tbg plugged. POOH wet w/ workstring to derrick. LD Tag Tool BHA, PU 3.5" Tri-cone bit BVHA. RIH w/ workstring. RU tbgs swivel to wash past restriction on jt #28 @ 878'KB, swiveled down jts #28-#35 w/ significant U-tbg during connections, returns were 9 ppg. RIH w/ workstring from derrick to 2172'KB, tbgs plugged (due to U-tbg, attempted to forward circulate w/o success, attempted to reverse circulate w/o success, POOH w/ tbgs, over pulled tbgs to 10K-20K through restriction at 1654'KB-1525'KB, contacted office. Discussed plan forward, Ended NPT Drake. Received approval to

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disregard Mud Spacer requirement from 2144'-1638' and to pump cement plug from 1525'KB-925'KB. Prepped to pump cement plug. Pumped cement plug #2. Pumped 10 bbls FW spacer @ 2.2 bpm w/ 20 psi, pumped 46 sacks type I/II cement w/1.18 yield @ 15.6 ppg w/ 2% calcium chloride at 1.5 bpm w/ 40 psi, pumped 3 bbls FW displacement at 2.6 bpm w/ 45 psi., shut down pump, POOH with workstring. (Estimated 600' plug: 1525' - 925'). POOH w/ tbg (47 jts) to working racks, closed BOP blind rams & csg outlet valves, SDFN.

10/27/24 – Held pre-work safety meeting. Inspected equipment and work areas. Checked WHP = SICP vacuum, 9 5/8" vacuum. RIH w/ Tag Tool BHA & 2 3/8" 8RD EUE workstring from derrick, worked through restriction at 1136', tagged TOC @ 1492'KB, pumped 12 bbls to establish circulation. Prepared to pump plug. Pumped cement plug #2 stg #2. Pumped 12 bbls FW spacer @ 1.5 bpm w/ 0 psi, pumped 9.6 bbls, 46 SKS type I/II cement w/1.18 yield @ 15.6 ppg w/ 2% calcium chloride at 1.6 bpm w/ 50 psi, pumped 3 bbls FW displacement at 3 bpm w/ 70 psi. Shut down pump, tbg went on a vacuum, POOH with workstring. (Estimated 600' plug: 1492' - 892'). WOC 4 hrs. POOH w/ workstring. RIH w/ Tag Tool BHA & 2 3/8" 8RD EUE workstring from derrick, worked through restriction at 1055', tagged TOC @ 1460'KB. Pumped 7 bbls to establish circulation, pumped 22 bbls total FW. Prepared to pump plug. Pumped cement plug #2 stg #3. Pumped 10 bbls FW spacer @ 2.9 bpm w/ 250 psi, pumped 9.6 bbls, 46 SKS type I/II cement w/1.18 yield @ 15.6 ppg w/ 2% calcium CaCl₂ at 1.2 bpm w/ 40 psi, pumped 3 bbls FW displacement at 4.2 bpm w/ 20 psi. Shut down pump, tbg went on a vacuum, POOH with workstring. (Estimated 600' plug: 1460' - 860'). WOC, POOH to derrick. RIH w/ Tag Tool BHA & 2 3/8" 8RD EUE workstring from derrick, worked through restrictions at 1055' & 1136', tagged TOC @ 1424'KB (36' gain). Pumped 5 bbls to establish circulation, pumped 20 bbls total FW @ 2.6 bpm w/ 200 psi, returns were bbl in/bbl out 9.5ppg, PH8, CHL-0, Sulphate-less than 200 (did not register on strip), gray cement like water. Prepared to pump plug. Pumped cement plug #2 stg #4, pumped 9.6 bbls, 46 SKS type I/II cement w/1.18 yield @ 15.6 ppg w/ 2% CaCl₂ at 1.8 bpm w/ 30 psi, pumped 3 bbls FW displacement at 3 bpm w/ 20 psi. Shut down pump, tbg went on a vacuum. POOH with workstring. (Estimated 600' plug: 1424'KB - 824'KB). POOH w/ workstring to derrick, closed BOP blind rams & csg outlet valves, SDFN.

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10/28/24 – Held pre-work safety meeting. Inspected equipment and work areas. Inspected equipment & work areas, checked WHP = SICP 0 psi, B annulus 0 psi (slight blow). RIH w/ Tag Tool BHA & 2 3/8" 8RD EUE workstring from derrick, worked through restriction at 1055' & 1136', tagged TOC @ 1390'KB (34' gain), pumped 11 bbls to establish circulation. Lined up pump to circulate wellbore, pumped 11 bbls FW to establish circulation, pumped 26 bbls total @ 2.4 bpm w/ 125 psi, returns were 9.5 ppg gray fluid, PH12, CaCl₂ 3000, Sulphate less than 200. Prepared to pump plug, Pumped cement plug #2 stg #5, pumped 19.3 bbls, 92 SKS type I/II cement w/1.18 yield @ 15.6 ppg w/ 2% CaCl₂ at 1.8 bpm w/ 50 psi, pumped 0.5 bbls FW displacement at 3 bpm w/ 20 psi. Shut down pump, tbg went on a vacuum. POOH with workstring. (Estimated 1200' plug: 1390'KB - 174'KB). WOC, POOH to derrick. RIH w/ Tag Tool BHA & 2 3/8" 8RD EUE workstring from derrick, cleared stands plugged w/ cement at 8RD pin, worked through restriction at 1055' & 1136', tagged TOC @ 1352'KB (38' gain), pumped 12 bbls to confirm cleared tbg @ 2.5 bpm w/ 50 psi. Prepared to pump plug, Pumped cement plug #2 stg #6, pumped 31.5 bbls, 150 SKS type I/II cement w/1.18 yield @ 15.6 ppg w/ 2% CaCl₂ at 3 bpm w/ 20 psi, pumped 0.5 bbls FW displacement at 2 bpm w/ 0 psi. Shut down pump, tbg went on a vacuum, annulus U-tbg, returns were 10 ppg - 10.2 ppg brown/gritty fluid, PH10.5, CHL 3000, Sulphate less than 200. (Estimated 1352' plug: 1352'KB - surface). POOH with workstring to derrick, closed BOP blind rams & csg outlet valves, SDFN.

10/29/24 – Held pre-work safety meeting. Inspected equipment & work areas, checked WHP = 0 psi. RIH w/ tag tool BHA & workstring from derrick, tagged TOC @ 518'KB (834' gain). Circulated bottoms up w/ 10 bbls FW, closed 4.5" csg outlet valve, opened 9 5/8" csg outlet valve to determine communication to 9 5/8", circulation immediately at 9 5/8" csg, discussed plan forward, pumped 5 bbls of 9.5 ppg, 44 visc. Gel Spacer fluid @ 2.3 bpm w/ 5 psi from 518'KB-204'KB w/ 1 bbl FW displacement at 2bpm w/ 0 psi. POOH w tbg to EOT 328'KB. Lined up pump to determine communication point in 9 5/8" csg w/ dye additive, lined up pump to forward circulate 2 3/8" x 4 1/2", circulated 7 bbls to flush wellbore. Closed 4 1/2" csg outlet valve, opened 9 5/8" csg outlet valve, established circulation immediately. Sent green dye additive, reset bbl counter, pumped 2.3 bpm w/ 0 psi, observed green dye additive at open top tank w/ 17.5 bbls pumped, communication point determined to be 317'KB. Discussed 330' perforation requirement

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w/ BLM, BLM made decision to perforate at 330'. POOH w/ tbg to working racks, closed BOP blind rams & csg outlet valves, SDFN due to high winds in the area. NPT due to high winds.

10/30/24 – Held pre-work safety meeting. Inspected equipment & work areas, spotted in WLU, checked WHP = 0 psi. RU WLU, MU WL perforating BHA, RIH w/ 3' perf gun (6 spf). RIH to 330'KB, shot guns from 330'-327', POOH, all shots fired, RD WLU. RIH w/ tbg to EOT 328'KB. Established circulation through 9 5/8". Prepared to pump plug, Pumped cement plug #3, pumped 30.4 bbls, 121 SKS type I/II cement w/1.18 yield 15.6 ppg at 2.9 bpm w/ 20 psi. Shut down pump, closed 9 5/8" csg outlet valve, opened 4 1/2" csg outlet valve, pumped 4.5 bbls 24 SKS (145 SKS total) type I/II cement w/1.18 yield 15.6 ppg at 2.9 bpm w/ 20 psi. Shut down pump (Estimated 330' plug: 330'KB - surface). POOH w/ tbg to 32'KB, topped off cement in 4.5"x2.375" annulus, POOH, wash up. Began RD WOR and cement equipment. Began NPT Drake due to hydraulic hose burst. Replaced hydraulic hose, ended NPT Drake, RD WOR, ND BOP. RDMO to well #177.

12/06/24 – Arrive to CSAU #179. Held safety meeting with Langan and personnel on location. Completed spiral gas check. Dug cellar 3ft down using the backhoe. R/U welder. Cut off well head. Cement was 9' low in 4.5" and at surface in 8.6". R/U cementing services. Topped off 4.5" casing using poly-pipe from 9' to surface with 9 sx. R/D cementers. Installed P&A marker per all local regulations. Backfilled location.

NEW MEXICO - CSAU 179 - WELLBORE SCHEMATIC

Location (Unit-Sec-Twp-Range): P-33-8S-30E
Surface Hole Latitude: 33.6035156
Surface Hole Longitude: -103.8794403
Bottom Hole Location: Vertical Well

API: 30-005-20207

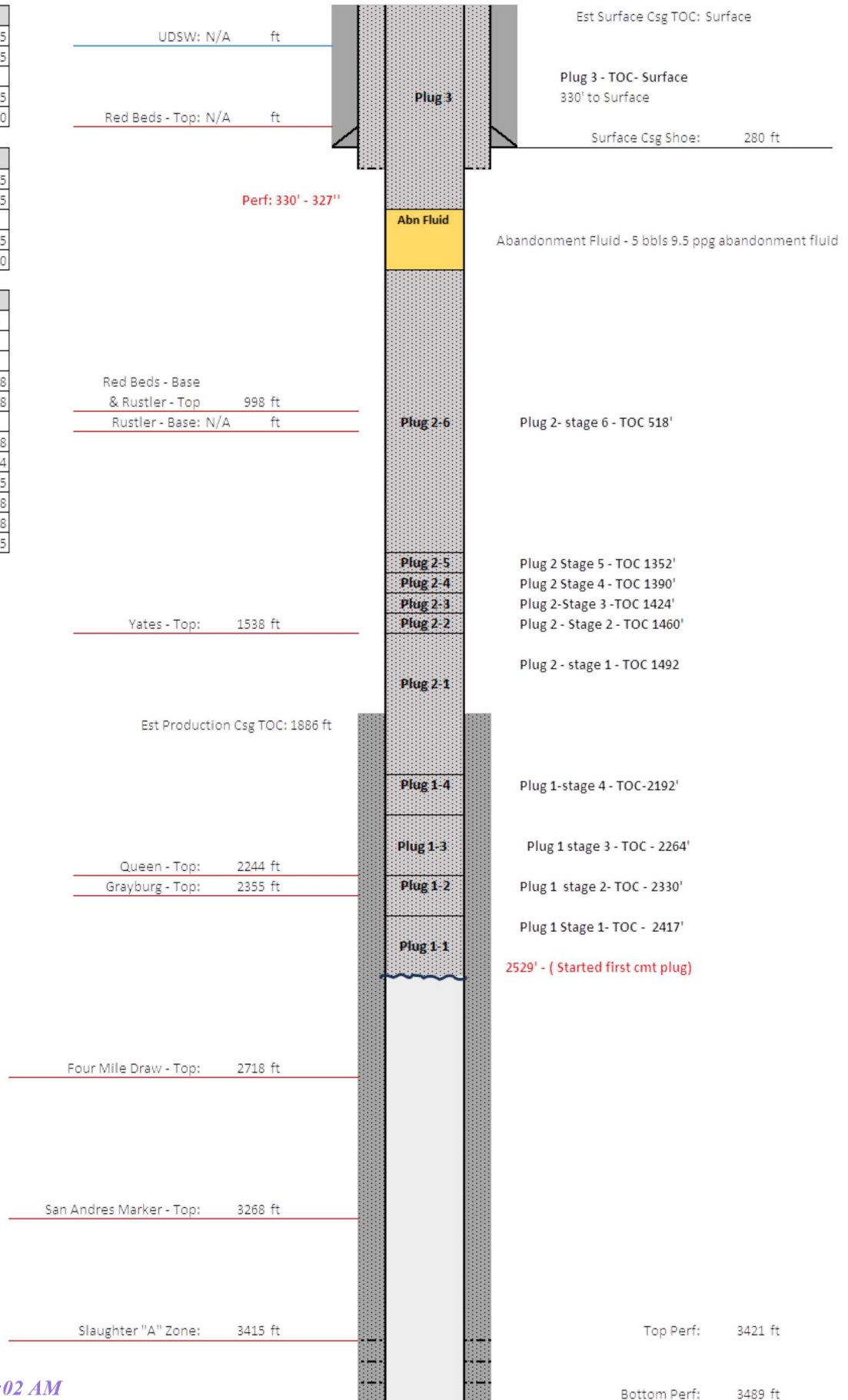
GL (ft): 4119

KB (ft): 10

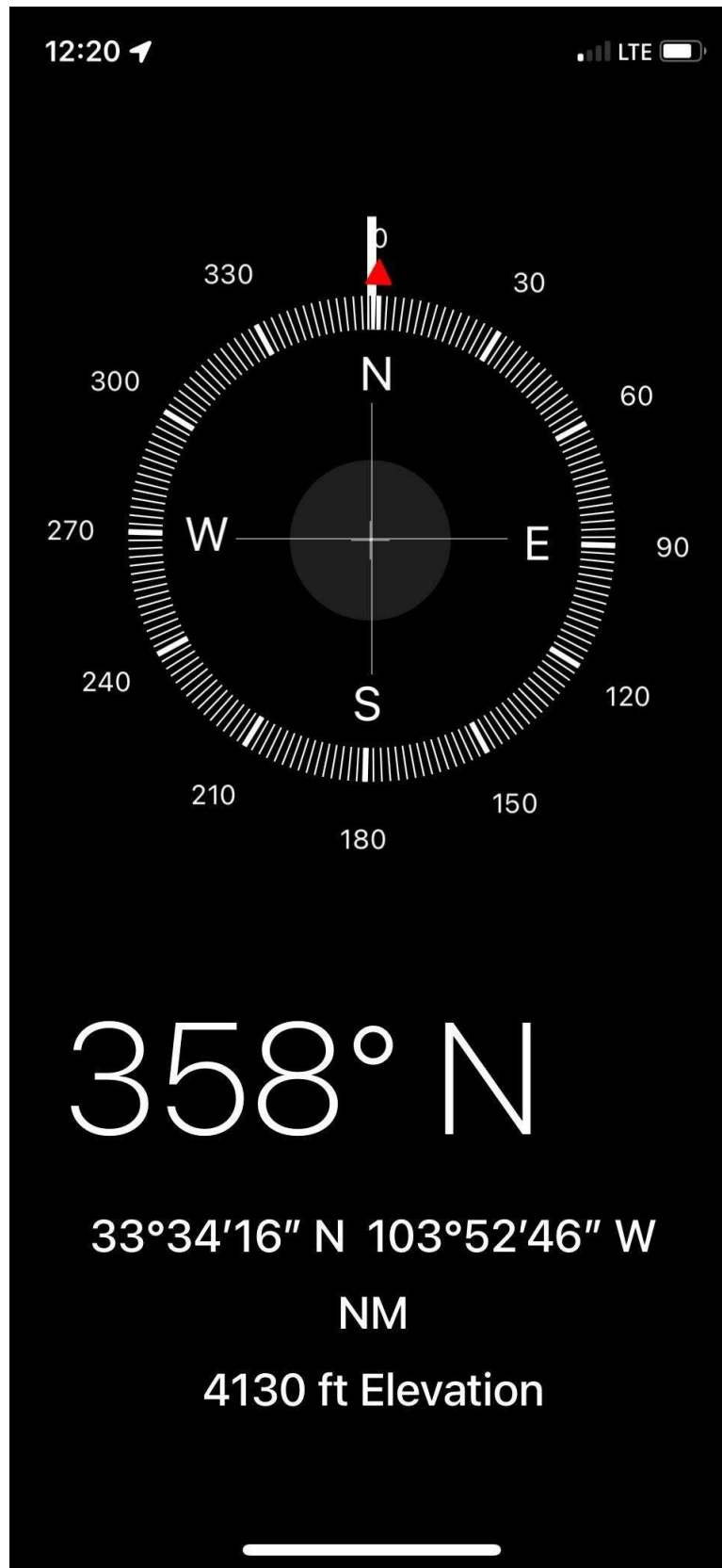
Surface Casing Information	
Size (in):	9.625
Weight (lb/ft):	53.5
Grade:	N/A
Hole Size (in):	12.25
Setting Depth:	280

Production Casing Information	
Size (in):	4.5
Weight (lb/ft):	10.5
Grade:	N/A
Hole Size (in):	7.875
Setting Depth:	3580

Formation Depth Information	
Formation	MD (ft)
UDSW	N/A
Red Beds - Top	N/A
Red Beds - Base	998
Rustler - Top	998
Rustler - Base	N/A
Yates - Top	1538
Queen - Top	2244
Grayburg - Top	2355
Four Mile Draw - Top	2718
San Andres Marker - Top	3268
Slaughter "A" Zone	3415







Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/oed/contact-us>

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 428356

CONDITIONS

Operator: CANO PETRO OF NEW MEXICO, INC. 801 Cherry Street Fort Worth, TX 76102	OGRID: 248802
	Action Number: 428356
	Action Type: [C-103] Sub. Plugging (C-103P)

CONDITIONS

Created By	Condition	Condition Date
loren.diede	None	2/13/2025