

Form 3160-5 (June 2015)	UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT	FORM APPROVED OMB No. 1004-0137 Expires: January 31, 2018
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. NMNM 0022636
		6. If Indian, Allottee or Tribe Name N/A

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 #144
2. Name of Operator Shell Oil Company (Western Division)		9. API Well No. 30-005-20215
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) M-22-08S-30E 660 FSL 660 FWL		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 recompletion 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 the 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 Legacy Program Manager
Signature	Date 08/20/2025

THE SPACE FOR FEDERAL OR STATE OFFICE USE		
Approved by	Title Petroleum Engineer	Date 08/21/2025
	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: Bureau of Land Management (BLM)

From: Langan Engineering and Environmental Services

Info: Shell Oil Company (Western Division)

Date: August 8, 2025

Re: Plug and Abandonment – End of Well Report
Cato San Andres Unit #144 / API 30-005-20215
Section 22, Township 8S, Range 30E
Langan Project No.: 781014301

Work Summary:

03/29/25 - Crew travel. Pre-Job Safety Meeting - discussed Equipment Inspections, 7 Step, JSA review, overhead lifts & stop work authority. Discuss daily operations and safety goals for the day. Discuss rig move and possibility of high winds. Inspected equipment & work areas. Begin moving equipment onto #144 RU WOR. Continue moving equipment on and rigging up. Tubing: 10 PSI. Blew down immediately. Pumped 5 bbls down tubing. 4.5": 0 PSI. Pumped 16 bbls. 8-5/8": 0 PSI. Gas monitor showing 0's. Monitor well for 30 minutes. Trickle water down 4.5" and welder begin welding 1/2" plate with gusset's to support 4.5" at surface. Rig crew continue rigging up equipment. 20 +/- bbls pumped down 4.5" and well is full. We have fluid at surface. Possible bridge up high. Continue with plan. Everything rigged up. Secure well. SDFN. Crew travel.

03/30/25 - Crew travel. Pre-Job Safety Meeting - Discussed Equipment Inspections, 7 Step, JSA review, overhead lifts & stop work authority. Discuss daily operations and safety goals for the day. Discuss unseat rod pump and pulling rods. Inspected equipment & work areas. Check pressures. 2.375=vacuum. 4.5=15 PSI and bleed off. 8-5/8=0 PSI. Pump 5 bbls down 2.375". Pump 10 bbls down 4.5". Monitor for 30 minutes. Rod SW=7K. Unseat pump with 14K. RU Rod BOP and table. Prep to lay down rods. Begin laying down rods. (2-4' pony rods. 2-6' pony rods and xx 3/4" rods and insert pump.) Out of hole w/ Polish rod, 2-4' pony rods, 2-6' pony rods, 119 - 3/4" rods, 20 - 7/8" rods and insert pump. RD rod equipment. Pump 10 bbls down tubing. RU tubing equipment. NU BOP and pressure test. Prep to pull 2-3/8" tubing. Unland tubing from slips.

Technical Memorandum

Plug and Abandonment – End of Well Report
Cato San Andres Unit #144 / API 30-005-20215
Section 22, Township 8S, Range 30E
Langan Project No.: 781014301
August 8, 2025 - Page 2 of 15

Pulled 7K to unland. When slips came free SW: 5K. Suspect parted tubing. Begin POOH laying down old tubing. Out of hole w/ 32 joints + 5'. Tubing is extremely corroded. Shut well in. Make calls to welder to finish repairs to WH tomorrow morning. Make call to fishing hand and fishing tools. Crew travel.

03/31/25 - Crew travel. Pre-Job Safety Meeting - Discussed Equipment Inspections, 7 Step, JSA review, overhead lifts & stop work authority. Discuss daily operations and safety goals for the day. Discuss Wellhead repairs. Inspected equipment & work areas. Check pressures. 4.5"=0 PSI. 8-5/8"=0 PSI Pump 20 bbls down 4.5". RD tubing equipment and floor ND BOP. Welder repair 4.5" casing and weld on bell nipple. NU BOP and pressure test. RU WOR floor and tubing equipment. Secure well and SDFN. Crew travel.

04/01/25 - Crew travel. Pre-Job Safety Meeting - Discussed Equipment Inspections, 7 Step, JSA review, overhead lifts & stop work authority. Discuss daily operations and safety goals for the day. Discuss fishing procedure. Inspected equipment & work areas. Check pressures. 4.5"=0 PSI. 8-5/8"=0 PSI. Prep and measure 1st run fishing tools. Load workstring onto pipe racks and tally. Make up 3.75" overshot w/ 2-3/8" grapple, (2) 3-3/4" extensions and OS top sub. RIH w/ workstring to find top of fish. Tag what felt like top of fish at 1084'. Rotated down 4' to 1088'. Could not get a bite with grapple. POOH w/ overshot out of hole. No marks on overshot or grapple. Too windy. Secure well and SDFN. Crew travel.

04/02/25 - Crew travel. Pre-Job Safety Meeting - Discussed Equipment Inspections, 7 Step, JSA review, overhead lifts & stop work authority. Discuss daily operations and safety goals for the day. Discuss fishing procedure. Inspected equipment & work areas. Check pressures. 4.5"=0 PSI. 8-5/8"=0 PSI Prep and measure fishing BHA #2. Make up 3-7/8" skirted mill with 3-1/4" mill inside. 3-3/4" triple cam and crossover. RIH w/ BHA#2 and workstring. 3-7/8" skirted mill will not fit into our 4.5" casing. Need to get 3-3/4" mills from Farmington weatherford shop. NPT- Wait on 3-3/4" skirted mills.

04/03/25 - Crew travel. Pre-Job Safety Meeting - Discussed Equipment Inspections, 7 Step, JSA review, overhead lifts & stop work authority. Discuss daily operations and safety goals for the

Technical Memorandum

Plug and Abandonment – End of Well Report
Cato San Andres Unit #144 / API 30-005-20215
Section 22, Township 8S, Range 30E
Langan Project No.: 781014301
August 8, 2025 - Page 3 of 15

day. Discuss fishing procedure. Inspected equipment & work areas. Check pressures. 4.5"=0 PSI. 8-5/8"=0 PSI. Prep and measure fishing BHA #2. Make up 3-3/4" skirted mill with 3-1/4" mill inside. 3-3/4" triple cam and crossover. RIH w/ BHA#2 and workstring. Rig up power swivel and prep to begin washing down. Begin washing down from 1000' KB. EOT @ 1306' KB and have not found top of fish. No indication in returns either. Continue washing down. Milling out what we assume is top of fish at 1507' KB. Milled 10' total to 1517'. Last 3' felt solid, like good metal. Circulate bottoms up. POOH w/ workstring and mill. Out of hole. Inspect wear on mill face. Good wear on mill. Secure well and SD until lease road gets repaired on the 7th. Crew travel.

04/04/25 - NPT-Prairie Chicken shut down (BLM). NPT-Wait on lease road repair.

04/05/25 - NPT-Prairie Chicken shut down (BLM). NPT-Wait on lease road repair.

04/06/25 - NPT-Prairie Chicken shut down (BLM). NPT-Wait on lease road repair.

04/07/25 - NPT-Prairie Chicken shut down (BLM). NPT-Wait on lease road repair.

04/08/25 - NPT-Prairie Chicken shut down (BLM) NPT-Wait on lease road repair.

04/09/25 - Crew travel. Pre-Job Safety Meeting - Discussed Equipment Inspections, 7 Step, JSA review, overhead lifts & stop work authority. Discuss daily operations and safety goals for the day. Discuss fishing procedure. Inspected equipment & work areas. Check pressures. 4.5"=0 PSI. 8-5/8"=0 PSI Make up 3-3/4" overshot with grapple and RIH. Tag solid at 922'. POOH w/ overshot. Make up 3-3/4" skirt w/ 3-1/8" concave mill and RIH. EOT @ 1050'. Did not see anything at 922'. POOH w/ skirted mill. Make up 3-3/4" overshot with grapple and RIH. Tagged at 1036'. Feels soft like fill. RU powers swivel and prep to break circulation and attempt to wash down. EOT @ 1517' on top of fish. Attempt to latch on, With pump off and pump on. Pulled 3K over but kept falling off. Lost circulation for 15 minutes. Got circulation back and continued trying to latch on. RD power swivel and POOH. Out of hole. No sign that we were even on the fish. Shut well in SDFN. Crew travel.

Technical Memorandum

Plug and Abandonment – End of Well Report
Cato San Andres Unit #144 / API 30-005-20215
Section 22, Township 8S, Range 30E
Langan Project No.: 781014301
August 8, 2025 - Page 4 of 15

04/10/25 - NPT due to BLM Prairie Chicken Restrictions 0600-0800. Arrived onsite, Pre-Job Safety Meeting - discussed complacency, inspections, weather, JSA review. Inspected equipment and work areas, checked WHP, 4.5" 0 PSI, 9 5/8" vacuum, opened well RIH w/ 2.375" workstring from derrick w/ 3.75" string mill & 3.75" tapered mill BHA, tagged restriction at 922'KB, LD joint #30 RU power swivel, pressure tested TPW to 1000 PSI - good, picked up joint #30, pumped 18 bbls of FW to establish circulation, RIH w/ no tag at 922'. Continued to swivel down while rotating, pumping and reaming every joint. Noticed intermittent light tags. Hard tag at 1512'KB, rotated and pumped w/ 2K WOB max, fell through restriction, pumped 25 bbls bottoms up to determine returns - pipe debris, scale & small amount of red bed formation, continued to wash down w/ patches of apparent scale/pipe debris. Hard tagged at 1643'KB, worked through restriction, returns were larger pieces of red bed formation, notified office, continue to wash down w/ patches of apparent scale/pipe debris Joint #61 down at 1952'KB, continued to wash down. Hard tag w/ joint #76 (15' out) @ 2413'KB, worked w/ 1-2K WOB to Kelly down at 2428'KB, did not fall through restriction, pumped bottoms up w/ 30 bbls of FW, returns were pipe debris and small pieces of Red Bed formation. Pulled stripper Head, racked back power swivel POOH to derrick w/ wet string, BD/LD mill BHA. Secured well, SDFN.

04/11/25 - NPT due to BLM Prairie Chicken Restrictions 0600-0800. Arrived onsite, Pre-Job Safety Meeting - discussed complacency, H2S Awareness, weather, JSA review. Inspected equipment and work areas, checked WHP, 4.5" 0 PSI, 9 5/8" vacuum, opened well RIH w/ 2.375" workstring from derrick w/ 3.75" string mill & 3.75" tapered mill BHA, slight tag at 1370'KB, RIH to 2393', RU power swivel Pressure tested TPW to 1500 PSI - good, picked up joint #76, worked to unplug mill, pumped 13 bbls of FW to establish circulation, RIH to tag at 2418'KB, washed down joint#76 KD 2428' (previous day final depth). Continued to swivel down while rotating, pumping and reaming joint #77, noticed higher pump pressure at 380-610 PSI, returns were formation/cement/pipe debris, pumped bottoms up to lower pump pressure, stabilized at 330 PSI, milled to 2443'KB (15' in 30 minutes), contacted office. RD power swivel, POOH to derrick w/ wet string and tapered mill BHA, BD/LD mill BHA, clear plugged BHA. RIH from derrick w/ workstring and mule shoe BHA, tagged at 2424'KB, LD joint #76, EOT 2393'KB RU TPW to pump plug #1, pressure tested TPW to 1500 PSI - good, pumped 13 bbls FW to break circulation,

LANGAN

Technical Memorandum

Plug and Abandonment – End of Well Report
Cato San Andres Unit #144 / API 30-005-20215
Section 22, Township 8S, Range 30E
Langan Project No.: 781014301
August 8, 2025 - Page 5 of 15

pumped plug #1, pumped 5.43 bbls (30 SKS) @ 1.6 bpm w/ 150 PSI of 15.6 ppg type I/II cement, 1.18 Yield, pumped 7.8 bbls FW displacement @ 3 bpm w/ 41 PSI, 400' plug from 2424'KB-2024'KB RD TPW from tubing, POOH w/ 15 joints to racks & 60 joints to derrick. Secured well, SDFN.

04/12/25 - NPT due to BLM Prairie Chicken Restrictions 0600-0800. Arrived onsite, Pre-Job Safety Meeting - SSE Awareness, weather, JSA review Inspected equipment and work areas, checked WHP, 4.5" 0 PSI, 9 5/8" vacuum, opened well RIH w/ 2.375" workstring & mule shoe BHA from derrick, tagged TOC at 2367'KB (57' gain), LD joint #75 EOT 2363'KB, RU TPW to tubing, pressure tested TPW to 1500 PSI - good, pumped 5 bbls of FW to establish circulation, pumped plug #1 Stg #2, pumped 11.13 bbls (53 SKS) @ 1.7 bpm w/ 53 PSI of 15.6 ppg type I/II cement, 1.18 Yield, pumped 6.45 bbls FW displacement @ 2.4 bpm w/ 58 PSI, 700' plug from 2367'KB-1667'KB WOC, POOH w/ 24 joints to working racks, 50 joints to derrick RIH w/ 2.375" workstring & mule shoe BHA from derrick, tagged TOC at 2366'KB (1' gain), LD joint #75 EOT 2363'KB, RU TPW to tubing, pressure tested TPW to 1500 PSI - good, pumped 8 bbls of FW to establish circulation, pumped plug #1 Stg #3, pumped 11.13 bbls (53 SKS) @ 1.7 bpm w/ 190 PSI of 15.6 ppg type I/II cement, 1.18 Yield, pumped 6.45 bbls FW displacement @ 3.3 bpm w/ 44 PSI, 700' plug from 2366'KB-1666'KB RD TPW from tubing, POOH w/ 74 joints to derrick Secured well, SDFN.

04/13/25 - NPT due to BLM Prairie Chicken Restrictions 0600-0800. Arrived onsite, Pre-Job Safety Meeting - Discussed LSRs, 7 Step cards, Routine Tasks, JSA review Inspected equipment and work areas, checked WHP, 4.5" 0 PSI, 9 5/8" vacuum, opened well RIH w/ 2.375" workstring & mule shoe BHA from derrick, tagged TOC at 2321'KB (45' gain), LD joint #73 EOT 2299'KB, RU TPW to tubing, pressure tested TPW to 1500 PSI - good, pumped 10 bbls of FW to establish circulation, pumped plug #1 Stg #4, pumped 11.13 bbls (53 SKS) @ 1.7 bpm w/ 270 PSI of 15.6 ppg type I/II cement, 1.18 Yield, pumped 6.27 bbls FW displacement @ 3 bpm w/ 60 PSI, 700' plug from 2321'KB-1621'KB WOC, POOH w/ 72 joints to derrick RIH w/ 2.375" workstring & mule shoe BHA from derrick, tagged TOC at 2258'KB (63' gain), LD joint #71 RU TPW to tubing, pressure tested TPW to 1500 PSI - good, pumped 9 bbls of FW to establish circulation, pumped

Technical Memorandum

Plug and Abandonment – End of Well Report
Cato San Andres Unit #144 / API 30-005-20215
Section 22, Township 8S, Range 30E
Langan Project No.: 781014301
August 8, 2025 - Page 6 of 15

plug #1 Stg #5, pumped 6.36 bbls (30 SKS) @ 2 bpm w/ 253 PSI of 15.6 ppg type I/II cement, 1.18 Yield, pumped 7.19 bbls FW displacement @ 2.7 bpm w/ 48 PSI, 400' plug from 2258'KB-1858'KB RD TPW from tubing, POOH w/ 70 joints to derrick Secured well, SDFN.

04/14/25 - NPT due to BLM Prairie Chicken Restrictions 0600-0800. Arrived onsite, Pre-Job Safety Meeting - JSA review Inspected equipment and work areas, checked WHP, 4.5" 0 PSI, 9 5/8" vacuum, opened well. Began NPT due to high winds Ended NPT due to high winds, RIH w/ 2.375" workstring & mule shoe BHA from derrick, tagged TOC at 2220'KB (38' gain), LD joint #70 EOT 2203'KB, RU TPW to tubing, pressure tested TPW to 1500 PSI - good, pumped 9 bbls of FW to establish circulation, pumped plug #1 Stg #6, pumped 11.13 bbls (53 SKS) @ 1.7 bpm w/ 270 PSI of 15.6 ppg type I/II cement, 1.18 Yield, pumped 5.81 bbls FW displacement @ 2.6 bpm w/ 65 PSI, 700' plug from 2220'KB-1520'KB WOC, POOH w/ 1 joint to racks, 68 joints to derrick RIH w/ 2.375" workstring & mule shoe BHA from derrick, tagged TOC at 2165'KB (55' gain), LD joint #68 EOT 2139'KB, RU TPW to tubing, pressure tested TPW to 1500 PSI - good, pumped 5 bbls of FW to establish circulation, pumped plug #1 Stg #7, pumped 11.13 bbls (53 SKS) @ 1.8 bpm w/ 200 PSI of 15.6 ppg type I/II cement, 1.18 Yield, pressure dropped, increased to 3 bpm w/ 20 PSI, pumped 5.67 bbls FW displacement @ 3.8 bpm w/ 60 PSI, 700' plug from 2165'KB-1465'KB RD TPW from tubing, POOH w/ 68 joints to derrick Secured well, SDFN.

04/15/25 - NPT due to BLM Prairie Chicken Restrictions 0600-0800. Arrived onsite, Pre-Job Safety Meeting - Discussed Process Safety, Routine Tasks, JSA review Inspected equipment and work areas, checked WHP, 4.5" 0 PSI, 9 5/8" vacuum, opened well RIH w/ 2.375" workstring & mule shoe BHA from derrick, tagged TOC at 2116'KB (49' gain), LD joint #67 EOT 2107'KB, RU TPW to tubing, pressure tested TPW to 1500 PSI - good, pumped 8 bbls of FW to establish circulation, pumped plug #2 Stg #1, pumped 12.6 bbls (60 SKS) @ 2.4 bpm w/ 300 PSI of 15.6 ppg type I/II cement, 1.18 Yield, with 3 bbls away- 1.5 bpm w/ 50 PSI, pumped 5.09 bbls FW displacement @ 3 bpm w/ 60 PSI, 800' plug from 2116'KB-1316'KB WOC, POOH w/ 66 joints to derrick RIH w/ 2.375" workstring & mule shoe BHA from derrick, tagged TOC at 2058'KB (58' gain), LD joint #65 EOT 2043', RU TPW to tubing, pressure tested TPW to 1500 PSI - good, pumped 5 bbls of FW to establish circulation, pumped plug #2 Stg #2, pumped 5.25 bbls (25 SKS)

Technical Memorandum

Plug and Abandonment – End of Well Report
Cato San Andres Unit #144 / API 30-005-20215
Section 22, Township 8S, Range 30E
Langan Project No.: 781014301
August 8, 2025 - Page 7 of 15

@ 1.6 bpm w/ 220 PSI of 15.6 ppg type I/II cement, 1.18 Yield, pumped 6.7 bbls FW displacement @ 2.6 bpm w/ 50 PSI, 330' plug from 2058'KB-1728'KB RD TPW from tubing, POOH w/ 64 joints to derrick. Secured well, SDFN.

04/16/25 - NPT due to BLM Prairie Chicken Restrictions 0600-0800. Arrived onsite, Pre-Job Safety Meeting - discussed Exclusion Zones, Zone Management, Routine Tasks, JSA review Inspected equipment and work areas, checked WHP, 4.5" 0 PSI, 9 5/8" vacuum, opened well RIH w/ 2.375" workstring & mule shoe BHA from derrick, tagged TOC at 2033'KB ('gain), LD joint #64 EOT 2012'KB, RU TPW to tubing, pressure tested TPW to 1500 PSI - good, pumped 8 bbls of FW to establish circulation, pumped plug #2 Stg #3, pumped 12.6 bbls (60 SKS) @ 1.8 bpm w/ 255 PSI of 15.6 ppg type I/II cement, 1.18 Yield, with 3 bbls away- 1.4 bpm w/ 60 PSI, pumped 4.83 bbls FW displacement @ 2.8 bpm w/ 60 PSI, 800' plug from 2033'KB-1248'KB WOC, POOH to racks w/ 1 joint, 62 joints to derrick RIH w/ 2.375" workstring & mule shoe BHA from derrick, tagged TOC at 1969'KB (25' gain), LD joint #62 RU TPW to tubing, pressure tested TPW to 1500 PSI - good, pumped 5 bbls of FW to establish circulation, pumped plug #2 Stg #4, pumped 12.6 bbls (60 SKS) @ 1.9 bpm w/ 100 PSI of 15.6 ppg type I/II cement, 1.18 Yield, with 6 bbls away- 1.3 bpm w/ 40 PSI, pumped 4.5 bbls FW displacement @ 3.2 bpm w/ 40 PSI, 800' plug from 1969'KB-1169'KB RD TPW from tubing, POOH w/ 64 joints to derrick Secured well, SDFN.

04/17/25 - NPT due to BLM Prairie Chicken Restrictions 0600-0800. Arrived onsite, Pre-Job Safety Meeting - discussed focus due to holiday, routine tasks, JSA review Inspected equipment and work areas, checked WHP, 4.5" 0 PSI, 9 5/8" vacuum, opened well RIH w/ 2.375" workstring & mule shoe BHA from derrick, tagged TOC at 1910'KB (59' gain), LD joint #60 EOT 1882'KB, RU TPW to tubing, pressure tested TPW to 1500 PSI - good, pumped 7 bbls of FW to establish circulation, pumped plug #2 Stg #5, pumped 12.6 bbls (60 SKS) @ 1.7 bpm w/ 270 PSI of 15.6 ppg type I/II cement, 1.18 Yield, pumped 4.3 bbls FW displacement @ 3 bpm w/ 60 PSI, 800' plug from 1910'KB-1110'KB POOH to racks w/ 59 joints Secured well, SDFN.

04/18/25 – Shut Down for Easter Weekend.

04/19/25 – Shut Down for Easter Weekend.

Technical Memorandum

Plug and Abandonment – End of Well Report
Cato San Andres Unit #144 / API 30-005-20215
Section 22, Township 8S, Range 30E
Langan Project No.: 781014301
August 8, 2025 - Page 8 of 15

04/20/25 – Shut Down for Easter Weekend.

04/21/25 – Shut Down for Easter Weekend.

04/22/25 - NPT due to BLM Prairie Chicken Restrictions 0600-0800. Arrived onsite, Pre-Job Safety Meeting - equipment inspections, JSA review Inspected equipment and work areas, checked WHP, 4.5" 0 PSI, 9 5/8" 0 PSI, opened well, re-spotted equipment, offloaded workstring, tallied pipe RIH w/ 2.375" workstring & mule shoe BHA from racks, tagged at 1010'KB, joint #32 w/ 10' down, worked pipe with wrenches to attempt to get past restriction, could not fall through restriction, LD joint #32 RU TPW, pressure tested TPW to 1500 PSI - good, pumped 0.5 bbls of FW down tubing, tubing pressured to 700 PSI, dislodged plug in tubing, broke circulation w/ 6 bbls pumped, at 13 bbls returns were gray colored formation, contacted office POOH to above 900'KB, RIH to 1010' at restriction, POOH to derrick w/ workstring. Secured well, SDFN.

04/23/25 - NPT due to BLM Prairie Chicken Restrictions 0600-0800. Arrived onsite, Pre-Job Safety Meeting - discussed 7 Step, equipment inspections, LSRs, JSA review Inspected equipment and work areas, checked WHP, 4.5" 0 PSI, 9 5/8" 0 PSI, opened well, RIH w/ 2.375" workstring & 3.75". Tapered mill/String mill BHA from derrick, ran 28 joints, RU power swivel, RU TPW, pressure tested TPW to 1500 PSI - good, continued RIH while rotating & circulating, tagged at 1015'KB, joint #31 kelly down PU off bottom, contacted office, POOH to 918'KB, RIH w/o rotating or circulating to 1015', tagged restriction, contacted office, rotated/washed to 1047'KB, no tags after 1050'KB. Continued to RIH while circulating (not rotating) to hard tag at 1835'KB, washed down to 1840'KB, pumped bottoms up RD power swivel, POOH to 1015'KB, ran pipe up and down from 950'-1065' w/ no tags, continued POOH, BD/LD mill BHA Secured well, SDFN.

04/24/25 - NPT due to BLM Prairie Chicken Restrictions 0600-0800. Arrived onsite, Pre-Job Safety Meeting - discussed Exclusion Zones, LSRs, JSA review Inspected equipment and work areas, checked WHP, 4.5" 0 PSI, 9 5/8" vacuum, opened well RIH w/ 2.375" workstring & mule shoe BHA from derrick, tagged TOC at 1835'KB w/ joint #57 KD, PU 6'x2.375" Pup joint, RU TPW to tubing, pressure tested TPW to 1500 PSI - good, pumped 8 bbls of FW to establish circulation, washed down to 1840'KB, LD 6' Pup EOT 1830'KB, RU TPW to tubing, pressure tested TPW to

LANGAN

Technical Memorandum

Plug and Abandonment – End of Well Report
Cato San Andres Unit #144 / API 30-005-20215
Section 22, Township 8S, Range 30E
Langan Project No.: 781014301
August 8, 2025 - Page 9 of 15

1500 PSI - good, pumped 3 bbls of FW to establish circulation, pumped plug #2 Stg #6, pumped 12.6 bbls (60 SKS) @ 1 bpm w/ 300 PSI of 15.6 ppg type I/II cement, 1.18 Yield, pressure dropped to 20 PSI, increased to 1.5 bpm w/ 450 PSI, pumped 4 bbls FW displacement @ 3 bpm w/ 60 PSI, 800' plug from 1840'KB-1040'KB WOC, POOH to racks w/ 3 joints, 54 joints to derrick, landed a WSI hanger w/ TWCV for 21 Day BOP test, tested blind rams 300 PSI, 5 minute/800 PSI, 5 minutes, tested pipe rams 300 PSI, 5 minutes/900 PSI, 5 minutes RIH w/ 2.375" workstring & mule shoe BHA from derrick, tagged TOC at 1810'KB (30' gain), LD joint #57 EOT 1797'KB, RU TPW to tubing, pressure tested TPW to 1500 PSI - good, pumped 2.3 bbls of FW to establish circulation, pumped plug #2 Stg #7, pumped 12.6 bbls (60 SKS) @ 1.8 bpm w/ 200 PSI of 15.6 ppg type I/II cement, 1.18 Yield, pumped 4 bbls FW displacement @ 2.8 bpm w/ 0 PSI, 800' plug from 1810'KB-1010'KB RD TPW from tubing, POOH w/ 56 joints to derrick Secured well, SDFN.

04/25/25 - NPT due to BLM Prairie Chicken Restrictions, Held off crew due to fog in area Arrived onsite, Pre-Job Safety Meeting - discussed traffic/driving, LSRs, JSA review Inspected equipment and work areas, checked WHP, 4.5" 0 PSI, 9 5/8" vacuum, opened well RIH w/ 2.375" workstring & mule shoe BHA from derrick, tagged TOC at 1783'KB w/ joint #56 (27' gain), LD joint #56 EOT 1767'KB, RU TPW to tubing, pressure tested TPW to 1500 PSI - good, pumped 5 bbls of FW to establish circulation, pumped plug #2 Stg #8, pumped 12.6 bbls (60 SKS) @ 1.9 bpm w/ 300 PSI of 15.6 ppg type I/II cement w/ 2% CaCl₂, 1.18 Yield, pressure dropped to 40 PSI, increased to 2.4 bpm w/ 40 PSI, pumped 3.8 bbls FW displacement @ 3.2 bpm w/ 65 PSI, 800' plug from 1783'KB-983'KB WOC, POOH to racks w/ 1 joint, 54 joints to derrick RIH w/ 2.375" workstring & mule shoe BHA from derrick, tagged TOC at 1730'KB (53' gain), LD joint #54 EOT 1703'KB, RU TPW to tubing, pressure tested TPW to 1500 PSI - good, pumped 4.5 bbls of FW to establish circulation, pumped plug #2 Stg #9, pumped 12.6 bbls (60 SKS) @ 2 bpm w/ 180 PSI of 15.6 ppg type I/II cement w/ 2% CaCl₂, 1.18 Yield, pressure dropped to 40 PSI, increased to 2.9 bpm w/ 40 PSI, pumped 3.5 bbls FW displacement @ 3.3 bpm w/ 60 PSI, 800' plug from 1730'KB-930'KB RD TPW from tubing, POOH w/ 1 joint to racks, 52 joints to derrick. Secured well, SDFN.

Technical Memorandum

Plug and Abandonment – End of Well Report
Cato San Andres Unit #144 / API 30-005-20215
Section 22, Township 8S, Range 30E
Langan Project No.: 781014301
August 8, 2025 - Page 10 of 15

04/26/25 - NPT due to BLM Prairie Chicken Restrictions 0600-0800. Arrived onsite, Pre-Job Safety Meeting - discussed Stop & Latch, LSRs, JSA review. Inspected equipment and work areas, checked WHP, 4.5" 0 PSI, 9 5/8" 0 PSI, opened well RIH w/ 2.375" workstring & mule shoe BHA from derrick, tagged TOC at 1648'KB w/ joint #52 (82' gain), LD joint #52 EOT 1638'KB, RU TPW to tubing, pressure tested TPW to 1500 PSI - good, pumped 3.5 bbls of FW to establish circulation, pumped plug #3 Stg #1, pumped 12.6 bbls (60 SKS) @ 2 bpm w/ 160 PSI of 15.6 ppg type I/II cement w/ 2% CaCl₂, 1.18 Yield, pressure dropped, increased to 3 bpm w/ 40 PSI, pumped 3.2 bbls FW displacement @ 3.5 bpm w/ 70 PSI, 800' plug from 1638'KB-848'KB WOC, POOH to racks w/ 1 joint, 50 joints to derrick RIH w/ 2.375" workstring & mule shoe BHA from derrick, tagged TOC at 1560'KB (88' gain), LD joint #49 EOT 1540'KB, RU TPW to tubing, pressure tested TPW to 1500 PSI - good, pumped 4 bbls of FW to establish circulation, pumped plug #3 Stg #2, pumped 15.75 bbls (75 SKS) @ 3.5 bpm w/ 300 PSI of 15.6 ppg type I/II cement, 1.18 Yield, pumped 2.1 bbls FW displacement @ 3.9 bpm w/ 50 PSI, 991' plug from 1560'KB-569'KB RD TPW from tubing, POOH w/ 1 joint to racks, 52 joints to derrick. Secured well, SDFN.

04/27/25 - NPT due to BLM Prairie Chicken Restrictions 0600-0800. Arrived onsite, Pre-Job Safety Meeting - discussed weater warnings, LSRs, 7 Step, JSA review. Inspected equipment and work areas, checked WHP, 4.5" 0 PSI, 9 5/8" 0 PSI, opened well RIH w/ 2.375" workstring & mule shoe BHA from derrick, tagged TOC at 1487'KB w/ joint #47 (73' gain), LD joint #47 EOT 1477'KB, RU TPW to tubing, pressure tested TPW to 1500 PSI - good, pumped 4.5 bbls of FW to establish circulation, pumped plug #3 Stg #3, pumped 15.75 bbls (75 SKS) @ 4.5 bpm w/ 500 PSI of 15.6 ppg type I/II cement, 1.18 Yield, pumped 1.9 bbls FW displacement @ 3.3 bpm w/ 70 PSI, shut down pump, vacuum, 991' plug from 1487'KB-496'KB RD TPW from tubing, POOH to derrick w/ 46 joints. Began NPT, shut down due to high winds in the area, secured well, SDFN.

04/28/25 - NPT due to BLM Prairie Chicken Restrictions 0600-0800. Arrived onsite, Pre-Job Safety Meeting - discussed LOF, Escape Routes, weather warnings, LSRs, 7 Step, JSA review. Inspected equipment and work areas, checked WHP, 4.5" 0 PSI, 9 5/8" 0 PSI, opened well RIH w/ 2.375" workstring & mule shoe BHA from derrick, tagged at 1005', worked down to 1010' RU Power Swivel, MU stripper head, pressure tested to Kelly Valve 1500 PSI, washed down to

Technical Memorandum

Plug and Abandonment – End of Well Report
Cato San Andres Unit #144 / API 30-005-20215
Section 22, Township 8S, Range 30E
Langan Project No.: 781014301
August 8, 2025 - Page 11 of 15

1435'KB, returns were formation and drilling mud, determined 1435'KB TOC, pumped bottoms up (15 bbls), LD joint #45, RD Power Swivel EOT 1414'KB, RU TPW to tubing, pressure tested TPW to 1500 PSI - good, pumped 2.5 bbls of FW to establish circulation, pumped plug #3 Stg #4, pumped 12.72 bbls (60 SKS) @ 2 bpm w/ 150 PSI of 15.6 ppg type I/II cement, 1.18 Yield w/ 2% CaCl₂, pressure dropped, 3.8 bpm w/ 30 PSI, pumped 2.45 bbls FW displacement @ 4 bpm w/ 50 PSI, shut down pump, vacuum, 800' plug from 1435'KB-635'KB WOC, RD TPW from tubing, POOH to racks w/ 14 joints, 30 joints to derrick NPT, shut down due to high winds in the area, secured well, SDFN.

04/29/25 - NPT due to BLM Prairie Chicken Restrictions 0600-0800. Arrived onsite, Pre-Job Safety Meeting - discussed Exclusion Zones, Stop & Latch, equipment inspections, JSA review. Inspected equipment and work areas, checked WHP, 4.5" 0 PSI, 9 5/8" 0 PSI opened well RIH w/ 2.375" workstring & mule shoe BHA from derrick, tagged at 1015'KB w/ joint #31, attempted to work through with wrenches, RU Power Swivel, pressure tested to Kelly Valve w/ 1500 PSI - good, pumped 6 bbls of FW to establish circulation, washed down to 1064'KB, RD power swivel, RIH to TOC 1404', (32' gain), LD joint #44 EOT 1383'KB, RU TPW to tubing, pressure tested TPW to 1500 PSI - good, pumped 3 bbls of FW to establish circulation, pumped plug #3 Stg #5, pumped 12.6 bbls (60 SKS) @ 2 bpm w/ 230 PSI of 15.6 ppg type I/II cement, 1.18 Yield, pressure dropped to 30 PSI, increased to 2.6 bpm w/ 30 PSI, pumped 2.2 bbls FW displacement @ 3.6 bpm w/ 70 PSI, 800' plug from 1404'KB-604'KB WOC, POOH to racks w/ 1 joint, 42 joints to derrick RIH w/ 2.375" workstring & mule shoe BHA from derrick, tagged TOC at 1377'KB (27' gain), LD joint #43 EOT 1352'KB, RU TPW to tubing, pressure tested TPW to 1500 PSI - good, pumped 3.5 bbls of FW to establish circulation, pumped plug #3 Stg #6, pumped 15.75 bbls (75 SKS) @ 2 bpm w/ 60 PSI of 15.6 ppg type I/II cement, 1.18 Yield, pumped 1.4 bbls FW displacement @ 3.8 bpm w/ 60 PSI, 991' plug from 1377'KB-386'KB RD TPW from tubing, POOH w/ 30 joints to derrick, RU TPW, reverse circulated at 390'KB w/ 6 bbls until clean, RD TPW, resume POOH w/ 12 joints to derrick (42 joints total). Secured well, SDFN.

04/30/25 - NPT due to BLM Prairie Chicken Restrictions 0600-0800. Arrived onsite, Pre-Job Safety Meeting - discussed Exclusion Zones, AAR, equipment inspections, JSA review.

LANGAN

Technical Memorandum

Plug and Abandonment – End of Well Report
Cato San Andres Unit #144 / API 30-005-20215
Section 22, Township 8S, Range 30E
Langan Project No.: 781014301
August 8, 2025 - Page 12 of 15

Inspected equipment and work areas, checked WHP, 4.5" 0 PSI, 9 5/8" 0 PSI opened well RIH w/ 2.375" workstring & mule shoe BHA from derrick, tagged at 900'KB w/ joint #28, attempted to work through with wrenches, RU Power Swivel, pressure tested to Kelly Valve w/ 1500 PSI - good, pumped 3 bbls of FW to establish circulation, washed down to 1095'KB, RD power swivel, RIH to TOC 1332', (20' gain), LD joint #42 EOT 1320'KB, RU TPW to tubing, pressure tested TPW to 1500 PSI - good, pumped 3 bbls of FW to establish circulation, pumped plug #3 Stg #7, pumped 12.6 bbls (60 SKS) @ 3 bpm w/ 200 PSI of 15.6 ppg type I/II cement, 1.18 Yield, pumped 2 bbls FW displacement @ 4 bpm w/ 30 PSI, 800' plug from 1332'KB-532'KB WOC, POOH to racks w/ 1 joint, 40 joints to derrick RIH w/ 2.375" workstring & mule shoe BHA from derrick, tagged TOC at 1316'KB (16' gain), LD joint #41 EOT 1288'KB, RU TPW to tubing, pressure tested TPW to 1500 PSI - good, pumped 3.5 bbls of FW to establish circulation, pumped plug #3 Stg #8, pumped 6.29 bbls (30 SKS) @ 2.1 bpm w/190 PSI of 15.6 ppg type I/II cement, 1.18 Yield, pumped 3.3 bbls FW displacement @ 3.4 bpm w/ 80 PSI, 396' plug from 1316'KB-920'KB RD TPW from tubing, POOH w/ 40 joints to derrick. Secured well, SDFN.

05/01/25 - NPT due to BLM Prairie Chicken Restrictions 0600-0800. Arrived onsite, Pre-Job Safety Meeting - discussed Exclusion Zones, AAR, equipment inspections, JSA review. Inspected equipment and work areas, checked WHP, 4.5" 0 PSI, 9 5/8" 0 PSI opened well RIH w/ 2.375" workstring & mule shoe BHA from derrick, tagged at 890'KB w/ joint #28, attempted to work through with wrenches, RU Power Swivel, pressure tested to Kelly Valve w/ 1500 PSI - good, pumped 3 bbls of FW to establish circulation, washed down to 1,064'KB, RD power swivel, RIH to TOC 1,294', (22' gain), LD joint #41 EOT 1,288'KB, RU TPW to tubing, pressure tested TPW to 1500 PSI - good, pumped 3 bbls of FW to establish circulation, pumped plug #3 Stg #9, pumped 12.6 bbls (60 SKS) @ 3 bpm w/ 200 PSI of 15.6 ppg type I/II cement, 1.18 Yield, pumped 2 bbls FW displacement @ 4 bpm w/ 30 PSI, 800' plug from 1,294'KB-494'KB WOC, POOH to racks w/ 1 joint, 40 joints to derrick RIH w/ 2.375" workstring & mule shoe BHA from derrick, tagged TOC at 1,276'KB (18' gain), LD joint #40 EOT 1,2568'KB, RU TPW to tubing, pressure tested TPW to 1500 PSI - good, pumped 3.5 bbls of FW to establish circulation, pumped plug #3 Stg #10, pumped 31.5 bbls (150 SKS) @ 2.1 bpm w/190 PSI of 15.6 ppg type I/II cement, 1.18 Yield, pumped 3.3 bbls FW displacement @ 3.4 bpm w/ 80 PSI, 1,981' plug from 1,276'KB-358'KB

Technical Memorandum

Plug and Abandonment – End of Well Report
Cato San Andres Unit #144 / API 30-005-20215
Section 22, Township 8S, Range 30E
Langan Project No.: 781014301
August 8, 2025 - Page 13 of 15

TOOH standing back to 358' (11 joints) and reverse out until returns are clean (7 bbls) TOOH standing back with remaining 11 joints RD TPW from tubing, POOH w/ 40 joints to derrick. Secured well, SDFN.

05/02/25 - NPT due to BLM Prairie Chicken Restrictions 0600-0800. Arrived onsite, Pre-Job Safety Meeting - discussed Exclusion Zones, AAR, equipment inspections, JSA review. Inspected equipment and work areas, checked WHP, 4.5" 0 PSI, 9 5/8" 0 PSI opened well NPT due to high winds RIH w/ 2.375" workstring & mule shoe BHA from derrick, tagged at 890'KB w/ joint #28, attempted to work through with wrenches, RU Power Swivel, pressure tested to Kelly Valve w/ 1500 PSI - good, pumped 3 bbls of FW to establish circulation, washed down to 1,064'KB, RD power swivel, RIH to TOC 1,294', (22' gain), LD joint #41 EOT 1,288'KB, RU TPW to tubing, pressure tested TPW to 1500 PSI - good, pumped 3 bbls of FW to establish circulation, pumped plug #3 Stg #9, pumped 12.6 bbls (60 SKS) @ 3 bpm w/ 200 PSI of 15.6 ppg type I/II cement, 1.18 Yield, pumped 2 bbls FW displacement @ 4 bpm w/ 30 PSI, 800' plug from 1,294'KB-494'KB WOC, POOH to racks w/ 1 joint, 40 joints to derrick RIH w/ 2.375" workstring & mule shoe BHA from derrick, tagged TOC at 1,276'KB (18' gain), LD joint #40 EOT 1,2568'KB, RU TPW to tubing, pressure tested TPW to 1500 PSI - good, pumped 3.5 bbls of FW to establish circulation, pumped plug #3 Stg #10, pumped 31.5 bbls (150 SKS) @ 2.1 bpm w/190 PSI of 15.6 ppg type I/II cement, 1.18 Yield, pumped 3.3 bbls FW displacement @ 3.4 bpm w/ 80 PSI, 1,981' plug from 1,276'KB-358'KB TOOH standing back to 358' (11 joints) and reverse out until returns are clean (7 bbls) TOOH standing back with remaining 11 joints RD TPW from tubing, POOH w/ 40 joints to derrick. Secured well, SDFN.

05/03/25 - NPT due to BLM Prairie Chicken Restrictions 0600-0800. Arrived onsite, Pre-Job Safety Meeting - discussed Exclusion Zones, AAR, equipment inspections, JSA review. Inspected equipment and work areas, checked WHP, 4.5" 0 PSI, 9 5/8" 0 PSI opened well RIH w/ 2.375" workstring & mule shoe BHA from derrick, tagged at 890'KB w/ joint 28. RU Power Swivel, pressure tested to Kelly Valve w/ 1500 PSI - good, pumped 3 bbls of FW to establish circulation, washed down to 1,031'KB, RD power swivel. RIH to TOC 1,096', (116' gain), LD joint 35 EOT 1,096'KB, RU TPW to tubing, pressure tested TPW to 1500 PSI - good, pumped 3 bbls of FW to

Technical Memorandum

Plug and Abandonment – End of Well Report
Cato San Andres Unit #144 / API 30-005-20215
Section 22, Township 8S, Range 30E
Langan Project No.: 781014301
August 8, 2025 - Page 14 of 15

establish circulation, pumped plug #3 Stg #12, pumped 15.7 bbls (75 SKS) @ 3 bpm w/ 15 PSI of 15.6 ppg type I/II cement, 1.18 Yield, pumped .4 bbls FW displacement @ 3 bpm w/ 30 PSI, 991' plug from 1,096'KB WOC, TOOH to derrick and reverse out from 358' with 6.5 bbls. TOOH to derrick with remaining 12 joints TIH w/ 2.375" workstring & mule shoe BHA from derrick, tagged up at 549'KB (483' above usual tag depth). Picked up and set down in the same spot. Marked the pipe and picked up and set down 4 additional times, tagging in roughly the same spot each time. RU swivel and begin to wash and rotate past tagged depth. Washed and rotated 4 additional joints to 658'. Noticed heavy cement pieces in returns. Elected to pump BU and check returns throughout. Cement cleaned up with BU on surface. Notified Team Lead and Engineer. During discussion, it is believed that we may be washing through top of plug. Decision made to TOOH and allow cement additional time to cure. TOOH (no damage to mule shoe), secure well and SDFN.

05/04/25 - NPT due to BLM Prairie Chicken Restrictions 0600-0800. Arrived onsite, Pre-Job Safety Meeting - discussed Exclusion Zones, AAR, equipment inspections, JSA review. Inspected equipment and work areas, checked WHP, 4.5" 0 PSI, 9 5/8" 0 PSI opened well RIH w/ 2.375" workstring & mule shoe BHA from derrick, tagged TOC 665'', (437' gain). Lay down 1 joint. Notified BLM EOT 646'KB, RU TPW to tubing, pressure tested TPW to 1500 PSI - good, pumped 0.5 bbls of FW to establish circulation and pumped 1.5 X BU (10bbls). Pumped plug #3 Stg #13, pumped 4.8 bbls (24 SKS) @ 2.5 bpm w/50 PSI of 15.6 ppg type I/II cement, 1.18 Yield, pumped 1.3 bbls FW displacement @ 3 bpm w/ 70 PSI, Plug - 307'. TOOH to 358' and reverse circulated until clean - 4 bbs. TOOH and WOC TIH w/ 2.375" workstring & mule shoe BHA from derrick, tagged TOC @ 390' (268' gain). TOOH, conducted safety pause with wireline crew, torque hand and rig crew. ND rig Stripper Flange and NU wireline flange and BOP. Notified BLM as to TOC depth. Secure well and SDFN due to high winds and thunderstorm approaching.

05/05/25 - NPT due to BLM Prairie Chicken Restrictions 0600-0800. Arrived onsite, Pre-Job Safety Meeting - discussed Exclusion Zones, AAR, equipment inspections, JSA review. Inspected equipment and work areas, checked WHP, 4.5" 0 PSI, 9 5/8" 0 PSI opened well RU TPW to 9.625" annulus and 4.5" CASING. RU WL shieves and MU BHA MU 3.125" guns (6 spf,

Technical Memorandum

Plug and Abandonment – End of Well Report
Cato San Andres Unit #144 / API 30-005-20215
Section 22, Township 8S, Range 30E
Langan Project No.: 781014301
August 8, 2025 - Page 15 of 15

19-gram charges), pull into lubricator and tie onto wellhead. Pressure test 250 PSI low and 800 PSI high Open well and RIH. Tag TOC @ 358'. Pick up to 328' and perforate from 328-331'. POOH Shut blind rams and open annulus and casing valves. Break circulation with and pump 12 bbls FW. RD wireline Open blind rams and RIH w/11 joints (358') 2.375" workstring & mule shoe BHA from derrick. Shut pipe rams, open annulus and casing valves. Pump cement down 9.625 x 4.5" annulus until returns seen at surface. Shut in annulus valve, open casing valve and RU TPW to tubing and pump cement until cement returns seen at surface. RD TPW TOOH and leave 1 joint in hole. Top off surface plug. Total cement pumped = 15 bbls / 72 sks. Wash up cement pump and lines. Rig down all service equipment and prepare to move to next well. SDFN.

05/06/25 - NPT due to BLM Prairie Chicken Restrictions 0600-0800. NPT due to condition of location after rainstorms. No activity

Arrived on location at the CSA 144 (30-005-20215). Held safety meeting. Dug out the cellar. R/U welder on location. Performed WH cutoff. Tagged cement at 6' in the 8-5/8" casing and at 1' in the 4-1/2" casing. R/U cementing services. Topped up both strings with 12 sx. Installed marker per all local regulations. Backfilled cellar.

07/23/2025 - Arrived on location at 144 and held safety meeting. Dug out the cellar. R/U welder on location. Performed WH cutoff. Tagged cement at 6' in the 8-5/8" casing and at 1' in the 4-1/2" casing. R/U cementing services. Topped up both strings with 12 sx. Installed marker per all local regulations. Backfilled cellar.



Plug & Abandonment Program

Cato San Andres Unit 144
M-22-8S-30E
Chaves County, NM

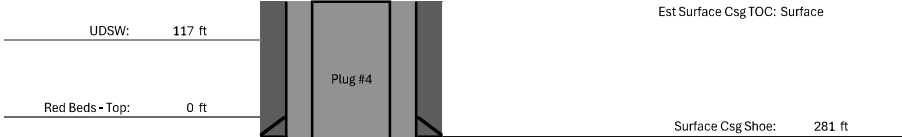
NEW MEXICO - CSAU 144 - WELLBORE SCHEMATIC ACTUALS

Location (Unit-Sec-Twp-Range): M-22-8S-30E
Surface Hole Latitude: 33.6035156
Surface Hole Longitude: -103.8746567
Bottom Hole Location: Vertical Well

API: 30-005-20215

GL (ft): 0
KB (ft): 10

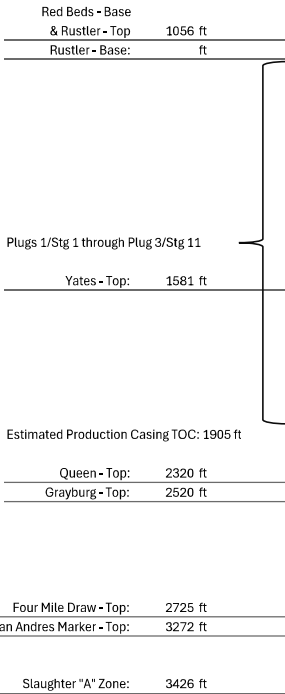
Surface Casing Information	
Size (in):	9.625
Weight (lb/ft):	47
Grade:	
Hole Size (in):	12.25
Setting Depth:	281



Production Casing Information	
Size (in):	4.5
Weight (lb/ft):	10.5
Grade:	
Hole Size (in):	7.875
Setting Depth:	3615

Production Tubing Information	
Size (in):	2.375"
Weight (lb/ft):	
Grade:	
Hole Size (in):	N/A
Setting Depth:	3337

Formation Depth Information	
Formation	MD (ft)
UDSW	117
Red Beds - Top	
Red Beds - Base	1056
Rustler - Top	1056
Rustler - Base	
Yates - Top	1581
Queen - Top	2320
Grayburg - Top	2520
Four Mile Draw - Top	2725
San Andres Marker - Top	3272
Slaughter "A" Zone	3426



Notes:

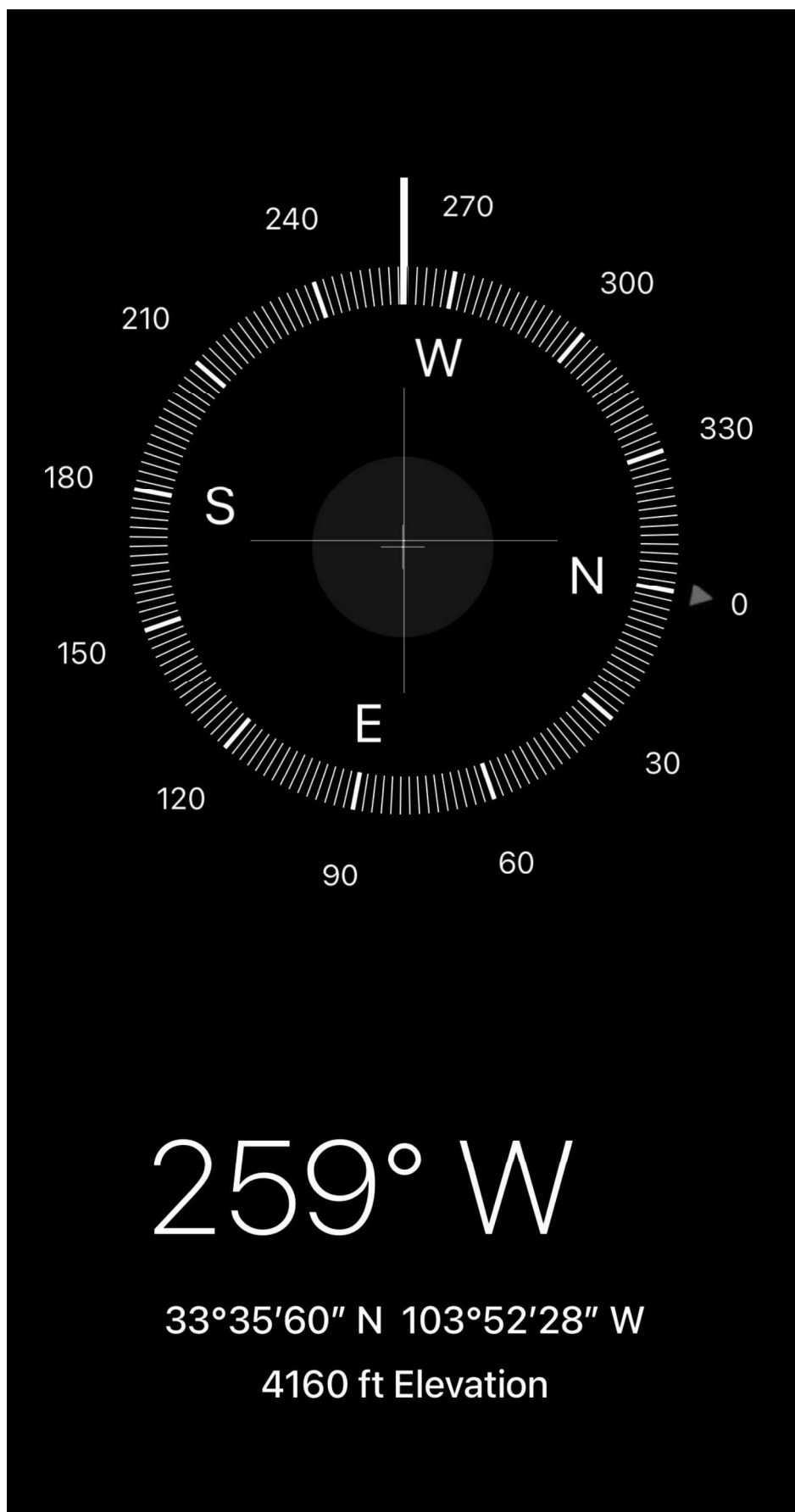
- Approximately 1000' of 2.375" tubing pulled
- Several attempts to made to fish rest of tubing, unsuccessful
- Likely sidetracked out of 4.5" prod casing into open annulus somewhere between 922' & 1500'
- Cleaned out to ~2438', received regulatory approval to cement well back from that point to surface

	Date Pumped	Bottom Depth	Top Depth (tagged)	Plug Length	sks
Plug 1 Stg1	4/11/2025	2393	2367	26	30
Plug 1 Stg2	4/12/2025	2367	2366	1	53
Plug 1 Stg3	4/12/2025	2366	2321	45	53
Plug 1 Stg4	4/13/2025	2321	2258	63	53
Plug 1 Stg5	4/13/2025	2258	2220	38	30
Plug 1 Stg6	4/14/2025	2220	2165	55	53
Plug 1 Stg7	4/14/2025	2165	2116	49	53
Plug 2 Stg1	4/15/2025	2116	2058	58	60
Plug 2 Stg2	4/15/2025	2058	2033	25	25
Plug 2 Stg3	4/16/2025	2033	1969	64	60
Plug 2 Stg4	4/16/2025	1969	1910	59	60
Plug 2 Stg5	4/17/2025	1910	1835	75	60
Plug 2 Stg6	4/24/2025	1835	1810	25	60
Plug 2 Stg7	4/24/2025	1810	1783	27	60
Plug 2 Stg8	4/25/2025	1783	1730	53	60
Plug 2 Stg9	4/25/2025	1730	1648	82	60
Plug 3 Stg1	4/26/2025	1648	1560	88	60
Plug 3 Stg2	4/26/2025	1560	1487	73	75
Plug 3 Stg3	4/27/2025	1487	1435	52	75
Plug 3 Stg4	4/28/2025	1435	1404	31	60
Plug 3 Stg5	4/29/2025	1404	1377	27	60
Plug 3 Stg6	4/29/2025	1377	1332	45	75
Plug 3 Stg7	4/30/2025	1332	1316	16	60
Plug 3 Stg8	4/30/2025	1316	1294	22	30
Plug 3 Stg9	5/1/2025	1294	1276	18	60
Plug 3 Stg10	5/1/2025	1276	1218	58	150
Plug 3 Stg11	5/2/2025	1218	1102	116	150
Plug 3 Stg12	5/3/2025	1102	665	437	75
Plug 3 Stg13	5/4/2025	665	390	275	24
Perf Interval	5/5/2025	331	331	N/A	
Plug 4	5/5/2025	390	0	390	72

Top Perf: 3446 ft
Bottom Perf: 3478 ft
PBTD: 3577 ft
Prod Csg Shoe: 3615 ft







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 499422

CONDITIONS

Operator: CANO PETRO OF NEW MEXICO, INC. 801 Cherry Street Fort Worth, TX 76102	OGRID: 248802
	Action Number: 499422
	Action Type: [C-103] Sub. Plugging (C-103P)

CONDITIONS

Created By	Condition	Condition Date
loren.diede	None	8/27/2025