Form 3160-5 (June 2015)

UNITED STATES DEPARTMENT OF THE INTERIOR

FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 201

BUR	EAU OF LAND MANAGEMENT		5. Lease Serial No.	NMNM 0022636	
SUNDRY N	IOTICES AND REPORTS ON W	/ELLS	6. If Indian, Allottee	or Tribe Name	
	orm for proposals to drill or to Use Form 3160-3 (APD) for suc	N/A			
SUBMIT IN	TRIPLICATE - Other instructions on pag	e 2	1	eement, Name and/or No.	
1. Type of Well			Cato San Andres l		
✓ Oil Well Gas W	—		8. Well Name and No	^{0.} Cato San Andres Unit #138	
2. Name of Operator Shell Oil Compa	ny (Western Division)		9. API Well No. 30-0		
3a. Address P.O. Box 576, Houston,	3b. Phone No. (832) 337-24	(include area code) 34	10. Field and Pool or Cato; San Andres		
4. Location of Well <i>(Footage, Sec., T., R</i> L-22-08S-30E 1980 FSL 66	.,M., or Survey Description) O FWL		11. Country or Parish Chaves County, I	n, State New Mexico, USA	
12. CHE	CK THE APPROPRIATE BOX(ES) TO INI	DICATE NATURE OF NO	 ГІСЕ, REPORT OR OT	THER DATA	
TYPE OF SUBMISSION		TYPE OF A	CTION		
Notice of Intent	Acidize Deep Alter Casing Hydr	=	oduction (Start/Resume)	Water Shut-Off Well Integrity	
Subsequent Report			complete mporarily Abandon	Other	
Final Abandonment Notice			ater Disposal		
completed. Final Abandonment No is ready for final inspection.)	ons. If the operation results in a multiple contices must be filed only after all requirement and Abandonment End of Well Report	s, including reclamation, hat			
	true and correct. Name (Printed/Typed)	Legacy Program N			
Samantha Baker		Title			
Signature		Date	08/25/2	2025	
	THE SPACE FOR FEDI	ERAL OR STATE O	FICE USE		
Approved by		Petroleum Er	ngineer	08/26/2025 Date	
Conditions of approval, if any, are attack certify that the applicant holds legal or ewhich would entitle the applicant to con	t or		12.00		
		•			

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, 3162.3-4.

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

(Form 3160-5, page 2)

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 25, 2025

Re:

Plug and Abandonment – End of Well Report

Cato San Andres Unit #138 / API 30-005-20267

Section 22, Township 8S, Range 30E

Langan Project No.: 781014301

Work Summary:

08/03/2024 - Moved equipment from well #198. Pre-job safety meeting - updated JSAs, inspected work areas. NPT - Wait for H2S meter to sweep cellar area. Prep wellhead for Hot Tap, hand dig trench for HTT, weld 2" coupling onto 9 5/8" casing outlet valve, installed new ball valve. RU HTT to 9 5/8" casing valve, attempted to pressure test HTT, leaked at welded collar, bled HTT. Removed HTT, dressed threads on coupling, installed HTT, attempted to pressure test, removed HTT. Welded bead around coupling, installed HTT, pressure tested HTT w/ N2, 500 PSI, bled back to 200 PSI. Hot Tap valve, drilled 7" hole w/ 1/2" bit. Closed new ball valve on casing, bled pressure from HTT, installed gauge, WHP 110 PSI. Removed gauge from casing valve, opened valve to test H2S, possible debris in tapped hole. Secured well. Shut down for night.

08/04/2024 - Inspected equipment & work areas. check WHP, 0 PSI on 4.5". Production pipe RU pump truck to 4.5", pressured up to 200 PSI on suspected plug in wellhead 2" nipple. NU HTT, pressure tested to 400 PSI, bled back to 200 PSI, re-tapped gate valve and 2" nipple, bled N2 pressure from HTT, ND HTT, checked WHP, 71 PSI on casing outlet, opened 2" ball valve to test w/ H2S meter, CO = 70 ppm, 0 PSI on 2" nipple at gate valve. replaced 6" nipple w/ 4" nipple to gain 2" on HTT stroke NU HTT, pressure tested to 400 PSI, bled back to 200 PSI, attempted to re-tap gate valve and 2" nipple, broke 1/2" drill bit off in 2" nipple between gate valve & wellhead. bled N2 pressure from HTT, ND HTT. Prepped wellhead to weld 2" coupling onto wellhead welded coupling, allowed weld to cool down. NU HTT, attempted to pressure test HTT, did not

Plug and Abandonment – End of Well Report Cato San Andres Unit #138 / API 30-005-20267 Section 22, Township 8S, Range 30E Langan Project No.: 781014301 August 25, 2025 - Page 2 of 7

get a good test due to bad threads on HTT. Begin NPT - RD. Move equipment to Well #164.

Perform prework.

08/05/2024 - Pre-job safety meeting - Discussed communication across vendors, LSRs, JSA review. Inspected equipment & work areas, checked WHP = 0 PSI NU HTT, pressure tested HTT w/ N2 to 240 PSI, bled back PSI to 150 PSI. Hot tapped wellhead w/ 1/2" bit, 9 5/8" WHP = 0 PSI.

Cut 4.5" production casing, welded Bell Nipple onto 4.5", NU ball valves for dual barriers. Secured

well, moved to well # 177.

08/06/2024 - Pre-job safety meeting & JSA review. Inspected equipment & work area. RU WLU

& crane MU/PU 5K gate valve, lubricator & WL tools. Pressure tested lubricator 200 PSI, 5

minutes/500 PSI, 5 minutes - good. Opened well, RIH w/ 3.625" GRJB, could not pass through

wellhead, POOH, RIH w/ 3.5" GRJB to tag at 3024' KB (top perf 3440'KB), did not determine fluid

level POOH. RD lubricator, WLU & crane.

05/15/2025 - NPT due to BLM Prairie Chicken Restrictions 0600-0900. Wait on heavy haul driver

(No large truck traffic on Cato Rd before 9:00). MIRU Drake Well Services Rig 26 and support

equipment. MU BOP to test stump and pressure test pipe ram and blind ram. Both at 250/800

PSI and both for 5 minutes. Load and tally 2.375" work string. Verify 0 PSI on all 3 strings. Perform

housekeeping and shut down for night.

05/16/2025 - NPT due to BLM Prairie Chicken Restrictions 0600-0900. Arrived onsite, pre-job

safety meeting - discussed Exclusion Zones, AAR, equipment inspections, JSA review.

Conducted operational hazard discussion around scheduled tasks for the day. Inspected

equipment and work areas, checked WHP, 4.5" 0 PSI, 9 5/8" 0 PSI and tubing 0 PSI. MIRU cement

pump. Pressure test TPW to 1,500 PSI. Open well and pump 5 bbls FW. Well on vacuum MU.

Rig well head and BOP. Function test rams and perform draw down test on accumulator. Set

floor and prepare for TIH with work string TIH with 2.375" work string with 3.875" junk mill. Stack

out just inside of 4.5" casing. Work the pipe up and down and turn with pipe wrenches and made

about a foot. Pull out joint, remove junk mill and MU 3.75" tri cone bit. TIH hole and stack out, set

tongs on pipe and begin to turn, Able to get past. Made 3 more trips up and down to ensure pipe

Plug and Abandonment – End of Well Report Cato San Andres Unit #138 / API 30-005-20267 Section 22, Township 8S, Range 30E Langan Project No.: 781014301 August 25, 2025 - Page 3 of 7

was clear. Continue TIH With 39 joints in (1,256'), operators on floor noticed that the BOP had shifted and was leaning to one side. Halt operations and examine BOP. Noticed that the nipple that screwed into rig well head had failed. Made notification to Team Lead. Conduct PAUSE meeting with crew. Secured BOP with chains on all 4 corners and TOOH. Stop operations again, when I noticed BOP had significant wiggle when unlatching slips and operating tongs. Inspected nipple and saw that the nipple had split open. Call and wait for welder. Welder on location, assessed his task and formed support brackets to secure nipple enough to TOOH with remaining pipe. Conduct safety meeting with all personnel. Discussed hazards associated with task, assigned R&R, wind direction and muster areas. Positioned fire watch and pumped 11 bbls down tubing. Brackets welded in place TOOH with remaining tubing. Spin off rig wellhead and BOP. Reinstall previous well top. Shut down for night.

05/18/2025 - NPT due to BLM Prairie Chicken Restrictions 0600-0900. Arrived onsite, pre-job safety meeting - discussed Exclusion Zones, AAR, equipment inspections, JSA review. Conducted operational hazard discussion around scheduled tasks for the day. Inspected equipment and confirmed 0 PSI on all strings MU 4.5". Weatherford CIBP with centralizer to 2.375" work string and TIH. While stabbing tubing into stripping head, the bottom of the tubing (below rig floor) contacted and broke the (not in use) Kill Line connection, causing to break. Remove flange from kill port and make up blind flange in its place. Manually set CIBP @ 3,388' (52' above top perf). Pick up off plug and set down with 1,000 lbs. Pick up and MU TPW and pressure test to 1,500 PSI. Begin to roll hole. With 10.5 bbls pumped (13.3 bbl capacity) pressure climbed to 600 PSI with no circulation. Bleed pressure off and TOOH. Out of the hole. Inspect circulation ports, suspect that they may have become plugged. Secure well, perform housekeeping and shut down for night.

05/19/2025 - NPT due to BLM Prairie Chicken Restrictions 0600-0900. Arrived onsite, pre-job safety meeting - discussed Exclusion Zones, AAR, equipment inspections, JSA review. Conducted operational hazard discussion around scheduled tasks for the day. Inspected equipment and confirmed 0 PSI on all strings. TIH with 2.375" work string with mule shoe to 3,388' and touch plug in the same spot. Lay down 1 joint RU TPW and pressure test to 1,500

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PSI. Break circulation with 5.5 bbls and roll hole until clean 50 bbls (48 bbl capacity). Pumped at 1.8 bpm with 350 PSI (average pressure) Shut in valves on 4.5" casing and slowly walk pressure up to 500 PSI. At 450 PSI, pressure fell to 0 PSI. Test failed. Pick up 1 joint and retag plug @ 3.388' (same spot). TOOH. At surface with all work string. Secure well, perform housekeeping and shut down for night due to high winds.

05/20/2025 - NPT due to BLM Prairie Chicken Restrictions 0600-0900. Arrived onsite, pre-job safety meeting - discussed Exclusion Zones, AAR, equipment inspections, JSA review. Conducted operational hazard discussion around scheduled tasks for the day. Inspected equipment and confirmed 0 PSI on all strings. NU WL lube and pressure test. 250 for 5 minutes. Pressure test to 500 PSI, failed at 350 PSI. Break out lube and pull RCBL BHA into it, tie back on to well. Open and RIH to 3,388'. POOH logging at 60 fpm. BHA on surface. RDMO WL TIH with 2.375" work string with mule shoe to 3,388'. RU TPW and pressure test to 1,500 PSI. Wait on decision on how much cement to pump for first plug. Break circulation with 0.5 bbls. Plug #1 - Pump 25 sks (5.25 bbls/300' plug) of 15.6 ppg type I/II cement, 1.18 Yield w/ 2% CaCl2 @ 2.0 bpm w/ 50 PSI and displace with 11.2 bbls. FW TOOH and wash up cement pump. Secure well, perform housekeeping and shut down for night.

05/21/2025 - NPT due to BLM Prairie Chicken Restrictions 0600-0900. Arrived on site, pre-job safety meeting - discussed plan for day, check pressures on well - 0 PSI on all strings and check equipment. Wait on mechanic to run diagnostics on rig. Mechanic on location to monitor rig. TIH with 2.375" work string with mule shoe and tag TOC @ 3,010'. TOOH. Back at surface with all work string. Secure well, perform housekeeping, discuss plan for 5/22 and shut down for night.

05/22/2025 - NPT due to BLM Prairie Chicken Restrictions 0600-0900. Crew travel. Pre-job safety meeting. Review JSAs and discuss days safety and operational goals. Discuss tag out for rig repairs. Check pressures on well. 0 PSI. Check equipment and perform morning checks. Prep to go to work. NPT. Drake well service. Wait on mechanic and perform maintenance on WOR. Change injectors on motor. NPT. Drake well service. Crew travel.

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05/23/2025 - NPT due to BLM Prairie Chicken Restrictions 0600-0900. Crew travel. Pre-job safety meeting. Review JSA's and discuss days safety and operational goals. Discuss WL/Perf operations. Check pressures on well. 0 PSI. Check equipment and perform morning checks. Prep. to go to work. RU wireline and Attempt to pressure test to 800 PSI. Pressure kept falling off. No visible leaks at surface. RIH and perforate from 2956' - 2961'. 6 spf (24 shots) POOH w/ wireline. Verify all shots fired. Shut in Blind rams and attempt to break circulation down 4.5" x 9-5/8" casing. Pumped 2 bbls total and pressured out at 450 PSI w/ no circulation. Attempt pressure tests on next 4 runs. Ensure no visible leaks at surface. RIH 4 more separate times and perforate 4.5" casing at 2934' - 2937', 2916' - 2919', 2898' - 2901' & 2880' - 2883'. 6 spf. (72 shots total + 24 shots= 96 holes) RD wireline and prep to RIH w/ tubing. RIH w/ tubing to tag depth of 3010' KB. Displaced the whole time running in hole. RU cementers and pressure test surface lines to 1500 PSI. Break circulation immediately. Break circulation with 0 bbls. Plug # 2 - Pump 50 sks (10.5 bbls slurry, 6.2 bbls mixed water/660' plug) of 15.6 ppg type I/II cement, 1.18 Yield w/ 2% CaCl2 @ 2.0 bpm w/ 75 PSI and displace with 8.6 bbls FW. Estimated plug depth if perforations take no cement is 3010' - 2350'. LD 21 joints to place EOT above Prospective TOC @ 2290'. Reverse out with 12 bbls of FW. Shut in tubing and pipe rams and begin to attempt cement squeeze. Pumped 0.8 bbls down 4.5" Locked up at 250 PSI. Monitored for 5 minutes. No bleed off. Bleed off the 250 PSI. POOH w/ remaining workstring. Secure well. Shut down for night. Crew travel.

05/24/2025 – Crew travel.

05/25/2025 - NPT due to BLM Prairie Chicken Restrictions 0600-0900. Crew travelPre-job safety meeting. Review JSAs and discuss days safety and operational goals. Discuss days goals. Check pressures on well. 0 PSI. Check equipment and perform morning checks. Prep to go to work. Make up 3.06" mule shoe and RIH to tag TOC. Tag TOC @ 2053'. Break circulation w/ 0 bbls away. Break circulation with 0 bbls. Plug #3. - Pump 31 sks (6.4 bbls slurry, 3.8 bbls mixed water/403' plug) of 15.6 ppg type I/II cement, 1.18 Yield with/ 2% CaCl2 @ 2.0 bpm w/ 60 PSI and displace with 5.8 bbls FW. Estimated plug depth: 2053' - 1650'. POOH w/ workstring and WOC, RIH w/ workstring and tag TOC @ 1650' KB. POOH w/ workstring. NU WL flange. RU WL and attempt to pressure test. RIH w/ wireline and perforate at 1617' - 1620'. POOH and RD

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wireline. RIH and place EOT just above tag @ 1650'. With 51 joints. Break circulation with 0 bbls. Plug #4. - Pump 54 sks (11.3 bbls slurry, 6.7 bbls mixed water/710' plug) of 15.6 ppg type I/II cement, 1.18 Yield without/ 2% CaCl2 @ 2.0 bpm w/ 50 PSI and displace with 3.2 bbls FW. Estimated plug depth: 1650' - 940'. LD 23 joints. Stand back 14 stands. Shut well in. Shut down for night and WOC. Crew travel.

05/26/2025 - NPT due to BLM Prairie Chicken Restrictions 0600-0900. Crew travel. Pre-job safety meeting. Review JSA's and discuss days safety and operational goals. Discuss days goals. Check pressures on well. 0 PSI. Check equipment and perform morning checks. Prep to go to work. Make up 3.06" mule shoe and RIH to tag TOC. Tag TOC @ 966'. 26' from estimated top. Good tag. Wait on cement bulk truck. Break circulation with 0 bbls. Plug #5. - Pump 45 sks (9.4 bbls slurry, 5.56 bbls mixed water/591' plug) of 15.6 ppg type I/II cement, 1.18 Yield without/ 2% CaCl2 @ 2.0 bpm w/ 60 PSI and displace with 1.2 bbls FW. Estimated plug depth: 966' - 375'. Reverse out at 350'. with 5 bbls. POOH w/ workstring. No time to perforate and pump surface plug. Shut well in and shut down for night. Crew travel.

05/27/2025 - NPT due to BLM Prairie Chicken Restrictions 0600-0900. Crew travel. Pre-job safety meeting. Review JSA's and discuss days safety and operational goals. Discuss days goals. Check pressures on well. 0 PSI. Check equipment and perform morning checks. Prep to go to work. RIH and tag TOC @ 357'. POOH w/ 11 joints. Pump down 13-3/8" x 9-5/8" annuli. Pump 0.5 bbls and locked up with 50 PSI. Wait on orders. RU WL and pressure test to 500 PSI. RIH and perforate 4.5" casing from 322' - 325' 6 spf. Attempt to circulate down 4.5" and up 9-5/8". No circulation. RD WL and get permission to pump surface plug inside 4.5" casing. RIH w/ 11 joints. Break circulation with 0 bbls. Plug #6. - Pump 44 sks (9.2 bbls slurry, 5.4 bbls mixed water/357' to surface) of 15.6 ppg type I/II cement, 1.18 Yield without/ 2% CaCl2 @ 2.0 bpm w/ 25 PSI. Estimated plug depth: 357' to surface. POOH w/ 11 joints and top off with cement. RDMO. Job complete. Ready for cap and cut. Crew travel.

07/22/2025 - Traveled to the CSA 138 (30-005-20267). Held safety meeting. R/U welder. Performed WH cutoff. Cement was at surface in both strings. Installed P&A marker. Backfilled

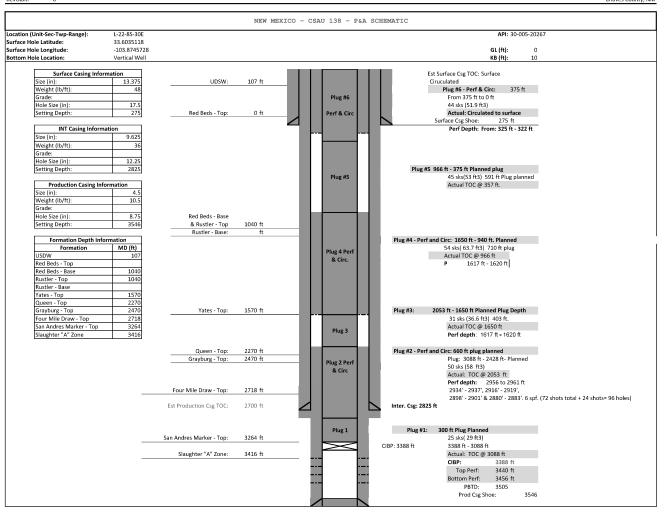
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cellar. Cleaned equipment and staged on the next location. Shutdown and traveled back to Roswell.

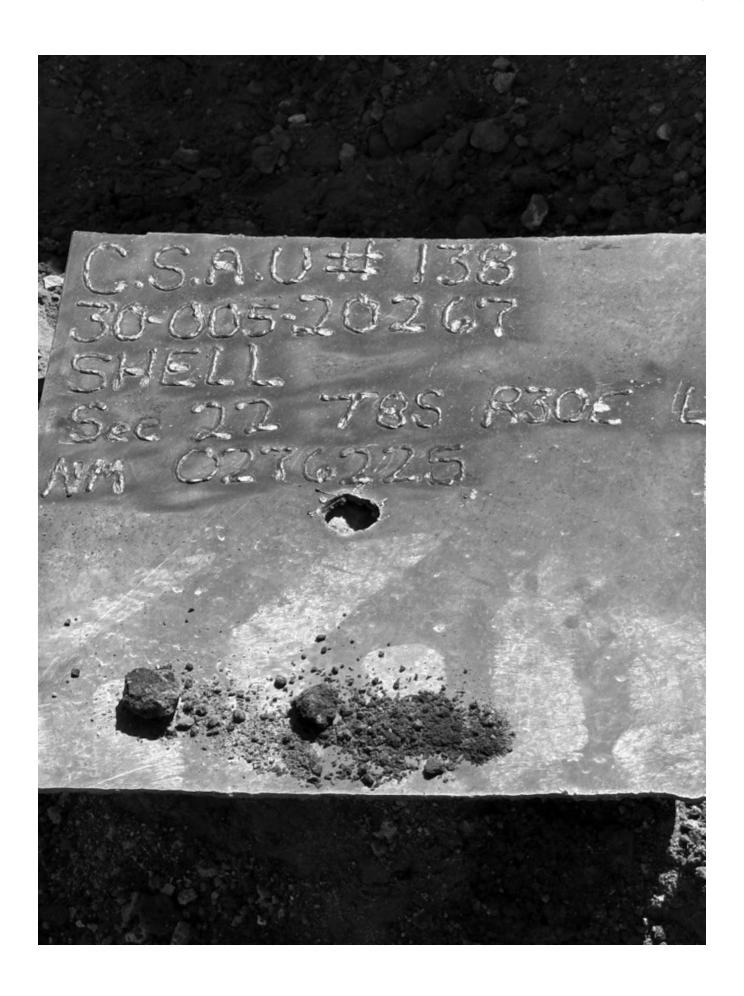
LANGAN

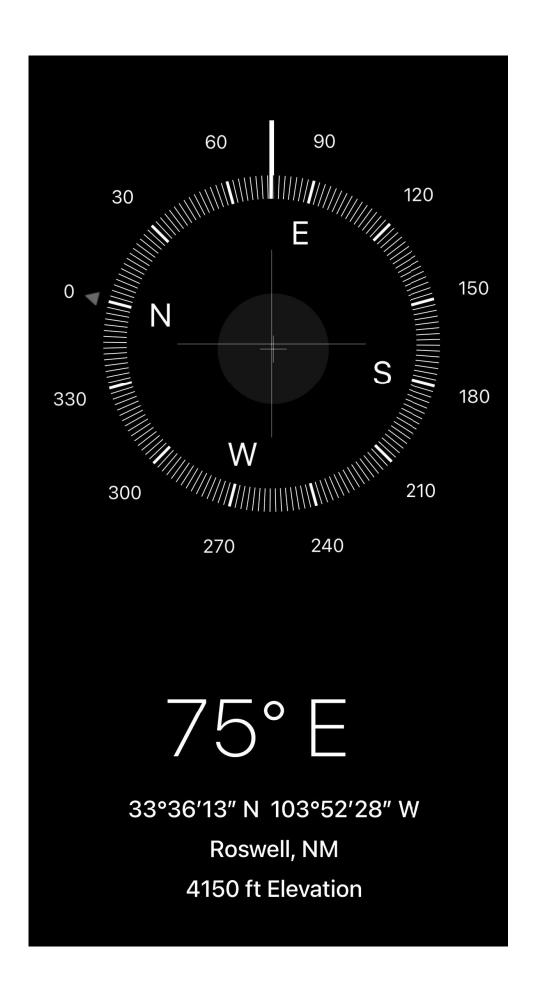


Cato San Andres Unit 138 L-22-8S-30E Chaves County, NM









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

General Information Phone: (505) 629-6116

Online Phone Directory https://www.emnrd.nm.gov/ocd/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 500653

CONDITIONS

CANO PETRO OF NEW MEXICO, INC. 248802 801 Cherry Street Action Number: Fort Worth, TX 76102 500653	
,	
Action Type: [C-103] Sub	o. Plugging (C-103P)

CONDITIONS

Created	Ву	Condition	Condition Date
loren.c	diede	None	8/29/2025