

Submit 1 Copy To Appropriate District Office
District I - (575) 893-6161
1625 N. French Dr., Hobbs, NM 88240
District II - (575) 748-1283
811 S. First St., Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV - (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
Revised July 18, 2013

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

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)		WELL API NO. 30-025-28116 ✓
1. Type of Well: Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> INJECTOR		5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
2. Name of Operator CHEVRON U.S.A. INC. ✓		6. State Oil & Gas Lease No.
3. Address of Operator 15 SMITH ROAD, MIDLAND, TEXAS 79705		7. Lease Name or Unit Agreement Name WEST VACUUM UNIT ✓
4. Well Location Unit Letter: A 170 feet from NORTH line and 110 feet from the EAST line Section 3 Township 18S Range 34E NMPM County LEA		8. Well Number 055 ✓
11. Elevation (Show whether DR, RKB, RT, GR, etc.)		9. OGRID Number 4323
		10. Pool name or Wildcat VACUUM

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

NOTICE OF INTENTION TO: PERFORM REMEDIAL WORK <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> TEMPORARILY ABANDON <input type="checkbox"/> CHANGE PLANS <input type="checkbox"/> PULL OR ALTER CASING <input type="checkbox"/> MULTIPLE COMPL <input type="checkbox"/> DOWNHOLE COMMINGLE <input type="checkbox"/> CLOSED-LOOP SYSTEM <input type="checkbox"/> OTHER: INTENT TO REPAIR MIT FAILURE & ADD PAY	SUBSEQUENT REPORT OF: REMEDIAL WORK <input type="checkbox"/> ALTERING CASING <input type="checkbox"/> COMMENCE DRILLING OPNS. <input type="checkbox"/> P AND A <input type="checkbox"/> CASING/CEMENT JOB <input type="checkbox"/> OTHER:
13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.	

CHEVRON U.S.A. INC. INTENDS TO REPAIR MIT FAILURE AND ADD PERFORATIONS. CHEVRON RECEIVED A LETTER OF VIOLATION AND REPAIRS ARE DUE BY 11/01/2015.

PLEASE FIND ATTACHED, THE INTENDED PROCEDURE AND WELLBORE DIAGRAMS.

DURING THIS PROCESS WE PLAN TO USE THE CLOSED LOOP SYSTEM WITH A STEEL TANK AND HAUL TO THE REQUIRED DISPOSAL, PER THE OCD RULE 19.15.17.

Spud Date: Rig Release Date:

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

SIGNATURE Denise Pinkerton TITLE REGULATORY SPECIALIST DATE 08/27/2015
Type or print name DENISE PINKERTON E-mail address: leakejd@chevron.com PHONE: 432-687-7375
For State Use Only
APPROVED BY: Petroleum Engineer TITLE DATE 08/31/15
Conditions of Approval (if any):

SEP 01 2015

jm

West Vacuum Unit #55 (WIW)

LOCATION

State	New Mexico
County	Lea
Surface Location	170 FNL 110 FEL Sec 3, R-34E, T-18S

CASING DETAIL

Surface Csg.	
Size:	13-3/4"
Wt.:	48# H-40
Set @:	378'
Sxs cmt:	450sx Class "H"
TOC:	Surface
Hole Size:	17-1/2"
Intermediate Csg.	
Size:	9-5/8"
Wt.:	36# J-55
Set @:	1660'
Sxs Cmt:	800sx class "H"
TOC:	Surface
Hole Size:	13-3/8"
Production Csg.	
Size:	5-1/2"
Wt.:	15.5# J-55
Set @:	4800'
Sxs Cmt:	2000sx
TOC:	Surface
Hole Size:	7-7/8"

Tubing Detail

Size	Footage
2-3/8" Rice Duoline	
5-1/2" AD-1 injection pack	4424.00
EOT	4424.00

Perforations

4522, 25, 29, 35, 38, 45 47, 56, 59, 62, 65, 67, 70, 73,
76, 80, 86, 89, 92, 95, 4600, 07, 09, 11, 14, 19, 21, 24,
26, 28, 30, 35, 39, 52, 56, 58, 60
(2spf)

WELL ID INFORMATION

Lease Name	West Vacuum Unit #55
Field	Vacuum Grayburg San Andres
Reservoir	Grayburg-San Andres
Ref #	DO0852
API #	30-025-28116

KB:	
DF:	
GL: 4022'	
Spud Date: 3/4/1983	
Compl. Date: 3/18/1983	

WELL HISTORY

3/18/1983 Initial Completion

Perforate 4522-4660 and acidize w/ 9000gals 15% NEFE + 107 ball sealers
Injection Packer set at 4402'

5/9/1983 Began Water Injection

7/19/1993 Step Rate Test

Max Surface Injection Pressure 1350 psig

9/1/1994 Remedial Work

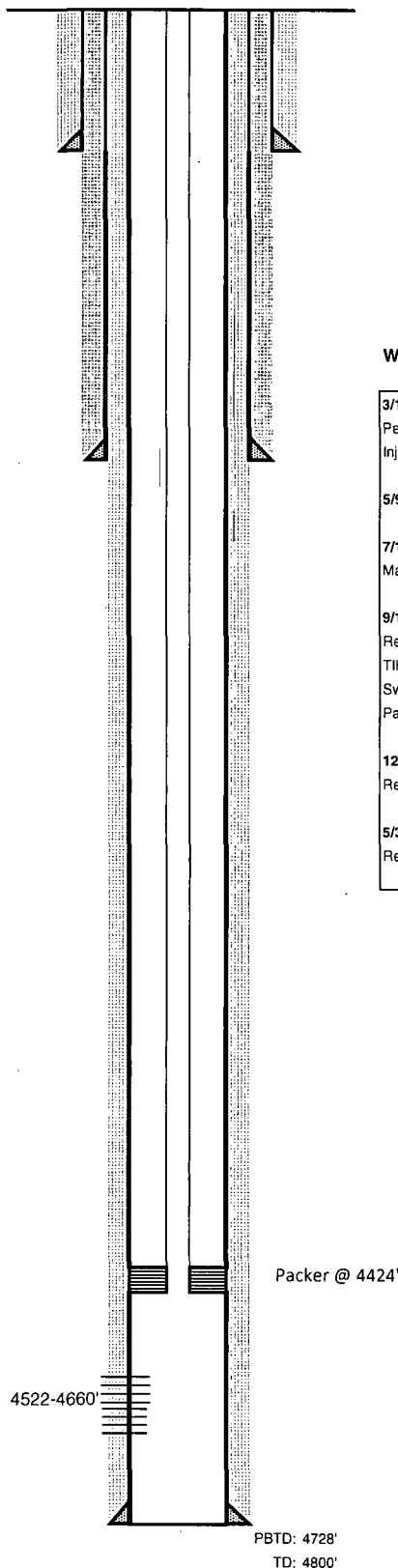
Released pkr & COOH w/ injection equip. C/O to PBTD.
TIH w/TP on wrkstring, spot 400gals 20% NEFE, Acidize perms w/6000gals 20% NEFE
Swabbed back load. TIH w/AD-1 Injection Packer on 2-3/8" Duoline
Packer set at 4417'

12/18/1995 Repaired Injection packer & test casing

Repaired 5-1/2" AD-1 packer, set at 4429', tested OK

5/3/1996 Repaired Injection packer & test casing

Repaired 5-1/2" AD-1 packer, set at 4424', tested OK



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4522, 25, 29, 35, 38, 45, 47, 56, 59, 62, 65, 67, 70, 73, 76, 80, 86, 89, 92, 95, 4600, 07, 09, 11, 14, 19, 21, 24, 26, 28, 30, 35, 39, 52, 56, 58, 60
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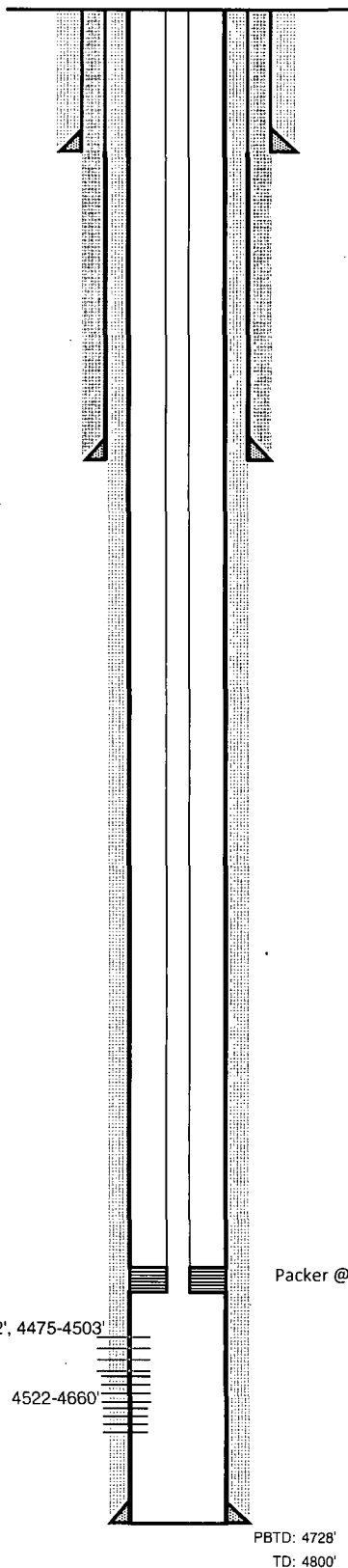
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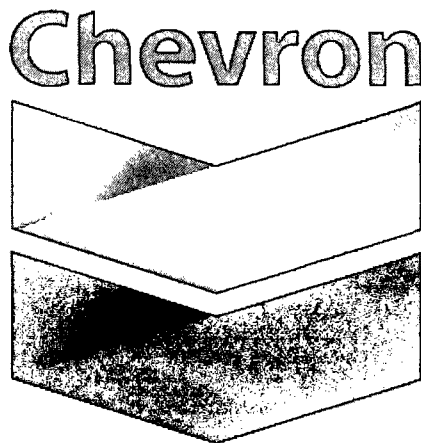
Packer @ 4400'

PBTD: 4728'
TD: 4800'



Well Name: WVU 55
MIT Repair & Add Perfs
ChevNo:DO0582 API #: 30-025-28116
Operator: Chevron U.S.A.
Location: Vacuum FMT County: Lea
Spud:3/4/83 Completion:3/18/83
Updated:EFUK

Chevron USA Inc.
Mid-Continent Business Unit



WORKOVER PROCEDURE

WVU 55

Lea County Vacuum FMT

Title	Name	Signature
Workover Engineer	Daniel Shelton	
Lead WSM	Darryl Ruthardt/ Jose Cruz	
Engineering Team Lead	Kyle Olree	
Drilling Superintendent	Victor Bajomo	
Production Engineer	Cody Baca	



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The purpose of this project is to repair the mechanical integrity of the wellbore and to add new perforations. This procedure is meant to be a guide only. It is up to the WSM, Workover Engineer and Production Engineer to make the decisions necessary to do safely what is best for the well. PLEASE REFER TO THE H2S SHEET AND TAKE ALL NECESSARY PRECAUTIONS TO MITIGATE THAT AND ANY OTHER RISKS.

Contacts:

Workover Engineer	Daniel Shelton	432-687-7471 / 832-763-1161
Production Engineer	Cody Baca	432-687-7462 / 432-557-9324
Workover Team Lead	Kyle Olree	432-687-7422 / 307-922-3098
Workover Superintendent	Victor Bajomo	432-687-7953 / 432-202-3767
Operations Supervisor	Nick Moschetti	575-396-4410 / 432-631-0646

Casing Information:

Surface Casing: 17-1/2" Hole 13-3/4" 48# H-40 set @ 378' Cmt w/ 450 sks
Intermediate Casing: 13-3/8" Hole 9-5/8" 36# J-55 set @ 1660' Cmt w/ 800 sks
Production Casing: 7-7/8" Hole 5-1/2" 15.5# J-55 set @ 4800' Cmt w/ 2000 sks

Tubing and Rod Information:

Tubing String: 2-3/8" rice duoline, AD-1 injection packer @ 4424'

Wellbore Information:

PBTD: 4728'

TD: 4800'

PRE-WORK:

1. Utilize the rig move check list.
2. Check anchors and verify that pull test has been completed in the last 24 months.
3. Ensure location of and distance to power lines is in accordance with MCBU SWP. Complete any electrical variance in RUMS if necessary.
4. Ensure that location is of adequate build and construction.
5. Ensure that elevators and other lifting equipment are inspected. Caliper all lifting equipment at the beginning of each day or when sizes change.
6. When NU anything over an open wellhead, ensure the hole is covered to avoid dropping anything down hole.
7. For wells to be worked on or drilled in an H2S field/area, include the anticipated maximum amount of H2S that an individual could be exposed to along with the ROE calculations for 100' and 500'.
8. Get procedure for the next well in the queue and check out the location for the next well. Ensure that it is ready to move on once this job is complete.
9. Have thread protectors for IPC tubing.
10. Purchase a drilling flange to NU and leave on the wellhead once we are done since this is a Larkin.



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PROCEDURE:

1. MIRU workover rig. Note tubing and casing pressure on well. Bleed well down.
 - **If necessary kill well.**
2. Observe the well for 30 minutes to ensure it is dead. ND WH.
3. NU 5M remotely-operated hydraulically-controlled BOP, 2-3/8" pipe rams over blind rams. NU EPA pan. Function test blind rams. Perform accumulator draw down test. Note rams closer time in wellview.
 - **Purchase a drilling flange to use when NU the BOP. We will leave it on the well after because this is a Larkin wellhead.**
4. Rig up floor. Unset injection packer and pick up one stand. Pick up a 5-1/2" test tension packer and RIH to ~25'. Set tension packer and test BOP 2-3/8" rams to 300/500 psi for 5 minutes each and chart. Record the test pressures in wellview.
 - **Ensure you bleed off pressure between each test.**
 - **Have the WSM and reverse operator sign the chart.**
5. POOH and LD test packer.
 - **Caliper elevators and tubular EACH DAY prior to handling tubing/tools. Note in JSA when and what items are callipered within the task step that includes that work.**
6. TOH with the 2-3/8" rice duoline injection tubing and 5-1/2" AD-1 injection packer. Lay down all joints of tubing and packer.
 - **Will order new 2-3/8" 4.7# J-55 8rd IPC tubing.**
 - **Install thread protectors.**
7. PU 5-1/2" RBP run in tandem with 5-1/2" tension set test packer on 2-3/8" L-80 8rd 4.7# workstring. Set RBP at 4450'. PU 5' and test the RBP against the packer. Pressure test casing to 500 psi.
 - **If casing holds pressure, POH with RBP and packer and proceed to step 8**
 - **If casing loses pressure, work RBP and packer up to isolate casing leak. Notify remedial engineer and wait on supplemental procedure to remediate leak.**



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- **Talk to the RE about the need to use 2 7/8" WS instead of 2 3/8". If we don't need it I would rather not waste time switching out rams however if we do then that's fine.**
- 8. PU a 4-3/4" MT bit on 2-3/8" L-80 8rd 4.7# work string.
- 9. TIH and tag fill.
- 10. PU the power swivel.
- 11. Gain circulation and clean out well to 4728' (PBSD).
- **Collect samples of the returns and turn them over to the chemical rep.**
- 12. Circulate the well clean and POOH racking back workstring, laying down the bit.
- 13. Rig up wireline truck. Set exclusion zone around WL unit. Test lubricator on catwalk to 1,000 psi.
- 14. Establish radio silence on location and post signs at location entrances.
- **Utilize radio safe detonators.**
- 15. Perforate new Grayburg perforations from 4475-4503', 4458-4462' with 3-1/8" perforating guns per recommendation of vendor. Tie into Dresser Atlas's Compensated Neutron Gamma Ray (including a CCL) dated 03/15/1983 (tie in strip included).
- **On log, tie in using "Casing Collars Correct Depth" located on the right track**
- 16. POOH with perforating gun and ensure all charges fired properly. RDMO wireline unit.
- 17. PU a 4-3/4" notched collar, 300' of 2-3/8" tailpipe WS and a 5-1/2" AS1X treating packer on 2-3/8" WS and TIH.
- 18. Set treating packer with end of tubing at ~ 4408' and the packer at 4108'.
- **Top perf is at 4458'**
- 19. Test the casing to 500 psi for 5 minutes. If test fails then notify RE.
- 20. MIRU petroplex acid contractor.
- 21. If needed pump scale converter per chemical reps recommendations and flush to bottom perforations. SION. If scale converter is not needed skip to pumping the acid job.
- **If scale converter is pumped, swab back load.**
- **Test lines to 5,000 psi prior to pumping anything.**



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22. MIRU Petroplex acid contractor. Monitor casing pressure throughout acid job. Bleed back to open top pit with a horn at the top. If pressure exceeds 500 psi during acid job or if communication occurs shut down and notify RE. Acidize perforations (4458'-4660') with 3700 gallons of 20% HCL dropping GRS as needed and flushing to the bottom perf at 3 bbl/min. **Maximum surface pumping pressure is 4900 psi. Set pop-off to 4800 psi.** Report acid volumes and pressures on morning wellview report.

➤ **Test pop off using FW. Set the trucks kill switch to go off at 4500 psi.**

23. Record ISIP, 5, 10, and 15 minute ISIP's. Allow acid to spend 2 hour. Flow well back on a choke.

➤ **If needed swab back until we have 100% of the load or formation fluid return to surface.**

➤ **Have soda ash on location.**

24. Unset packer and TIH and clean out salt to PBTD. (4728')

➤ **Top perf to PBTD is 270'. You should be able to clean out salt without having the packer go into the perfs.**

25. TOOH with WS, packer and notched collar laying down the WS and BHA.

➤ **Talk to RE about needing to set the packer using WS instead of injection tubing.**

26. PU a 5-1/2" AS-1X nickel-coated IPC injection packer with pump-out plug and T2 on/off tool with 1.43 'F' stainless-steel profile nipple and injection string.

➤ **Pin the pump out plug to 1000 psi higher than the hydrostatic pressure on the packer.**

➤ **Hydrotest the tubing to 6000 psi while RIH.**

27. TIH and set the injection packer at 4,440' hydrotesting to 6000 psi.

➤ **Upper most setting depth is 4,358'.**

28. Unlatch from on/off tool, circulate packer fluid to surface.

29. Pressure test tubing to 500 psi for 10 minutes. Once tubing passes, pressure up to blow pump out plug.

➤ **If the test fails notify the RE.**



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30. Run preliminary MIT—apply 550 psi to the casing for 30 minutes. Isolate reverse pump during the MIT and use chart recorder to record the pressure response. Notify remedial engineer if pressure losses are greater than or equal to 10% of applied pressure.
31. Notify OCD w/ 24 hrs of intent to run official MIT.
32. If pre-MIT test is good, bleed off backside pressure.
33. Monitor well for 30 minutes for flow prior to ND BOPE.
34. ND BOPE, NU drilling flange with a B5 landed out with the original tree.
 - **NU same WH and tree that was ND.**
 - **Observe well for 30 minutes to ensure it is dead prior to ND the BOP.**
35. RDMO pulling unit and associated surface equipment.
36. Perform and chart MIT to 550 psi for 32 minutes. Submit C103 report with original MIT chart attached.
37. Write work order to re-connect injection line.
38. Hand over to production for return to injection.
 - **Record in wellview who you handed the well over to.**
 - **Complete well handover form with the FMT injection specialist.**
39. Write final report in wellview.



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STANDARD GUIDELINES

Maximum Anticipated H2S Exposures (RRC H9 / NM Rule 36)

All personnel on location must be made aware of each of the following values (values vary by field):

*Maximum anticipated amount of H2S that an individual could be exposed to is 36,000 ppm
at the maximum anticipated escape volume (of wellbore gas) of 10 MCF/D
100 ppm Radius of Exposure is 53 feet.
500 ppm Radius of Exposure is 24 feet.*

Elevators

At every tubing size change, the elevators must be calipered and all lifting equipment must be visually inspected for the correct sizing, and rechecked daily. The elevators must also be checked for proper sizing by placing a pony sub in the elevators. Prior to picking up power swivel, caliper and visually inspect elevators and bail on swivel. Checks are to be documented in the JSA and elevator log.

ND/NU

Prior to N/D, N/U operations, if only one mechanical barrier to flow will be in place, visual monitoring of well condition by the WSM is necessary for 30 minutes or more to ensure that the well is static before removing or replacing well control equipment. For all deviations to 2B policy, check that MOC for exemption from 2B policy is in place and applicable. During ND/NU operations with only one barrier to flow in-place, constant visual monitoring of well condition during ND/NU by the WSM is necessary.

Installed Equipment

Any and all equipment installed at the surface on the wellbore is to be visually inspected (internally) by the WSM prior to N/U to the wellhead by the service provider to ensure no debris or other potential restrictions are present. During any NU ops over an open wellhead (BOP, EPA, etc.), ensure the hole is covered to avoid dropping anything downhole.

Hazard ID

Identify hazards with the crew as they come up during the job. Stop and review and discuss JSAs.

Scale and Paraffin Samples

When removing rods and/or tubing from a well, collect samples of any paraffin and/or scale. When drilling, note, report and sample significant returns of scale or paraffin, or anything other significant returns. Assume that samples that come from different areas/environments in the well are different and require a different sample; e.g. top/bottom of well, inside outside of tubing. Always collect enough sets of samples for both Production and D&C Chemical Reps. Send any samples to Chemical Reps., both for

- 1) Production (many times Baker), as well as for
- 2) D&C (many times PetroPlex).

Discuss D&C's Chemical Rep's recommendations with Engineering, or simply implement as practical.



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Trapped Pressure

Recognize whether the possibility of trapped pressure exists, check for possible obstructions by:

- Pumping through the fish/tubular – this is not guaranteed with an old fish as the possibility of a hole above the obstruction could yield inconclusive results
- Dummy run – make a dummy run through the fish/tubular with sandline, slickline, e-line or rods to verify no obstruction. If unable to verify that there is no obstruction above the connection to be broken, or if there is an obstruction:
- Hot Tap at the connection to check for pressure and bleed off
- Observe and watch for signs / indicators of pressure as connection is being broken. Use mud bucket (with seals removed) and clear all non-essential personnel from the floor.

Wireline

For all wireline and slickline jobs (except in new, cemented, tested and unperforated casing) install wireline packoff and lubricator. Follow Standard Guideline for installing equipment over wellhead. Test to 250 psi on the low end, and test on the high end based on SITP or max anticipated pressure. Establish exclusion zone around wellhead area. Observe and enforce radio silence as needed for explosives. All wireline tools are to be calipered and documented on a diagram prior to PU and RIH. This is critical information in the event of fishing operations.