Submit 3 Copies To Appropriate District Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave , Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

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

HOBBS OCD
MAR 29 2012
RECEIVED

Form C-103
June 19, 2008

WELL API NO. 30-025-31244	
5. Indicate Type of Lease STATE ☒ FEE ☐	
6. State Oil & Gas Lease No.	
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.)	7. Lease Name or Unit Agreement Name **NOWATA AGR STATE**
1. Type of Well: Oil Well ☒ Gas Well ☐ Other	8. Well Number **#1**
2. Name of Operator **LRE OPERATING, LLC**	9. OGRID Number 281994
3. Address of Operator c/o Mike Pippin LLC, 3104 N. Sullivan, Farmington, NM 87401	10. Pool name or Wildcat Vacuum, Bone Spring, Mid (46195)
4. Well Location Unit Letter P : 860 feet from the SOUTH line and 990 feet from the EAST line Section 9 Township 18-S Range 35-E NMPM Leay County	
11. Elevation *(Show whether DR, RKB, RT, GR, etc.)* 3920' GL	

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☐	COMMENCE DRILLING OPNS. ☐	P AND A ☐
PULL OR ALTER CASING ☐	MULTIPLE COMPL ☐	CASING/CEMENT JOB ☐	
DOWNHOLE COMMINGLE ☐			
OTHER: Sidetrack to Bone Spring ☒		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 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

LRE OPERATING, LLC would like to sidetrack this TA well to the Bone Springs, which was formerly a producing interval in this well. The proposed bottom hole location will be 1877' FSL & 2217' FEL (J) Sec.9 T18S R35E. The proposed TD will be ~MD8737' where 4-1/2" 13.5# N-80 csg will be set to surface & cmted back into the existing 7" csg. Attached is a detailed procedure, a new C-102, and wellbore diagrams.

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

SIGNATURE Mike Pippin TITLE Petroleum Engineer - Agent DATE 3/16/12

Type or print name Mike Pippin E-mail address: mike@pippinllc.com PHONE: 505-327-4573

For State Use Only

APPROVED BY: TITLE DATE 4-2-2012

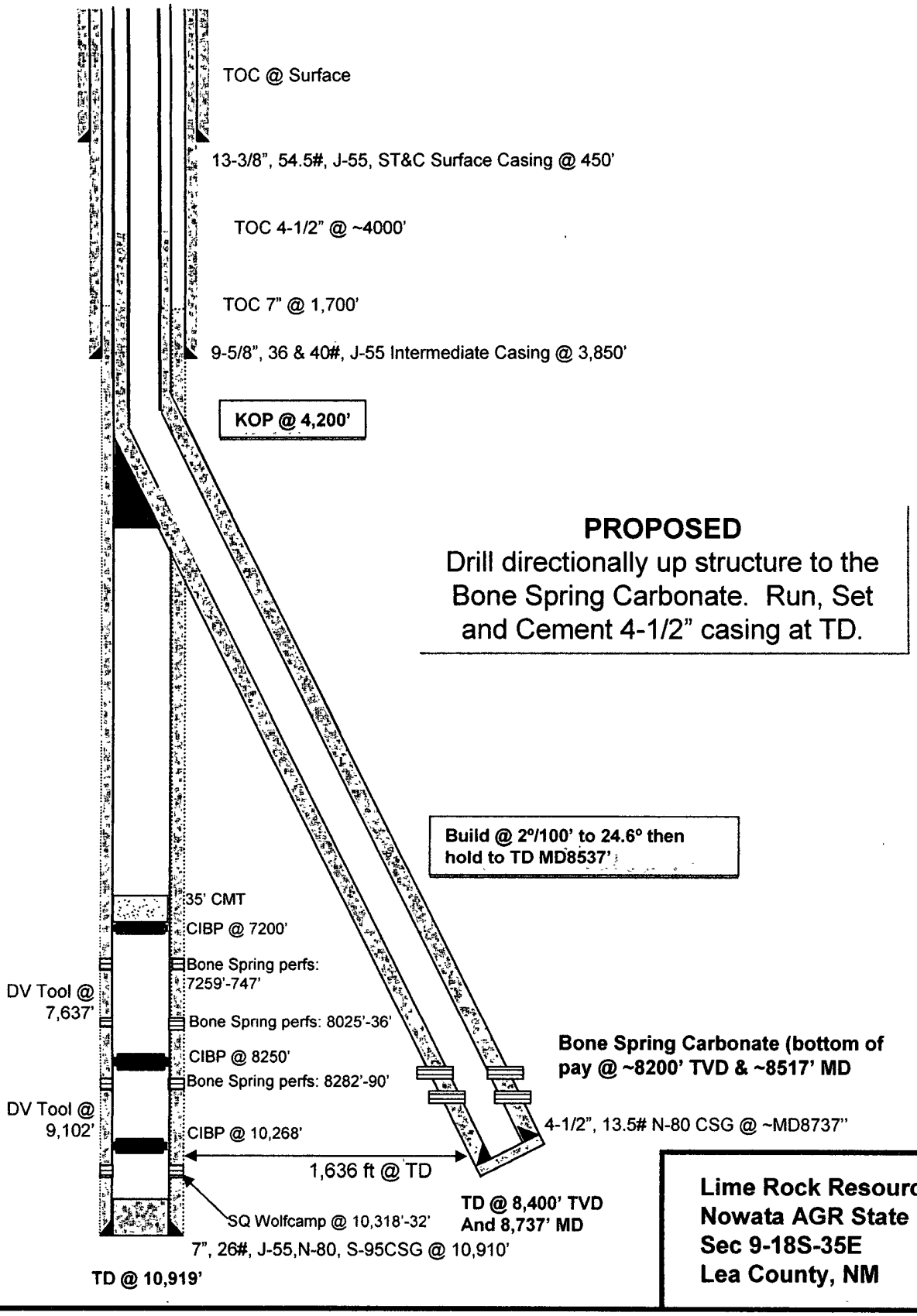
Conditions of Approval (If any):

RECEIVED
MAR 19 2012
NMOCD ARTESIA

APR 02 2012

LIME ROCK RESOURCES

PROPOSED WELLBORE



Lime Rock Resources
Nowata AGR State 1
Sec 9-18S-35E
Lea County, NM

HOBBS OCD

MAR 29 2012

RECEIVED

Submit to Appropriate
District Office
State Lease - 4 copies
Fee Lease - 3 copies

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Depart t

Form C-102
Revised 1-1-89

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

25 31244

Operator			Lease		Well No.
YATES PETROLEUM CORPORATION			Nowata AGR State		1
Unit Letter	Section	Township	Range		County
P	9	18S	35E	NMPM	Lea

Actual Footage Location of Well:
860 feet from the South line and 990 feet from the East line

Ground level Elev.	Producing Formation	Pool	Dedicated Acreage:
3920'	Bone Springs	Wildcat Bone Springs	40 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

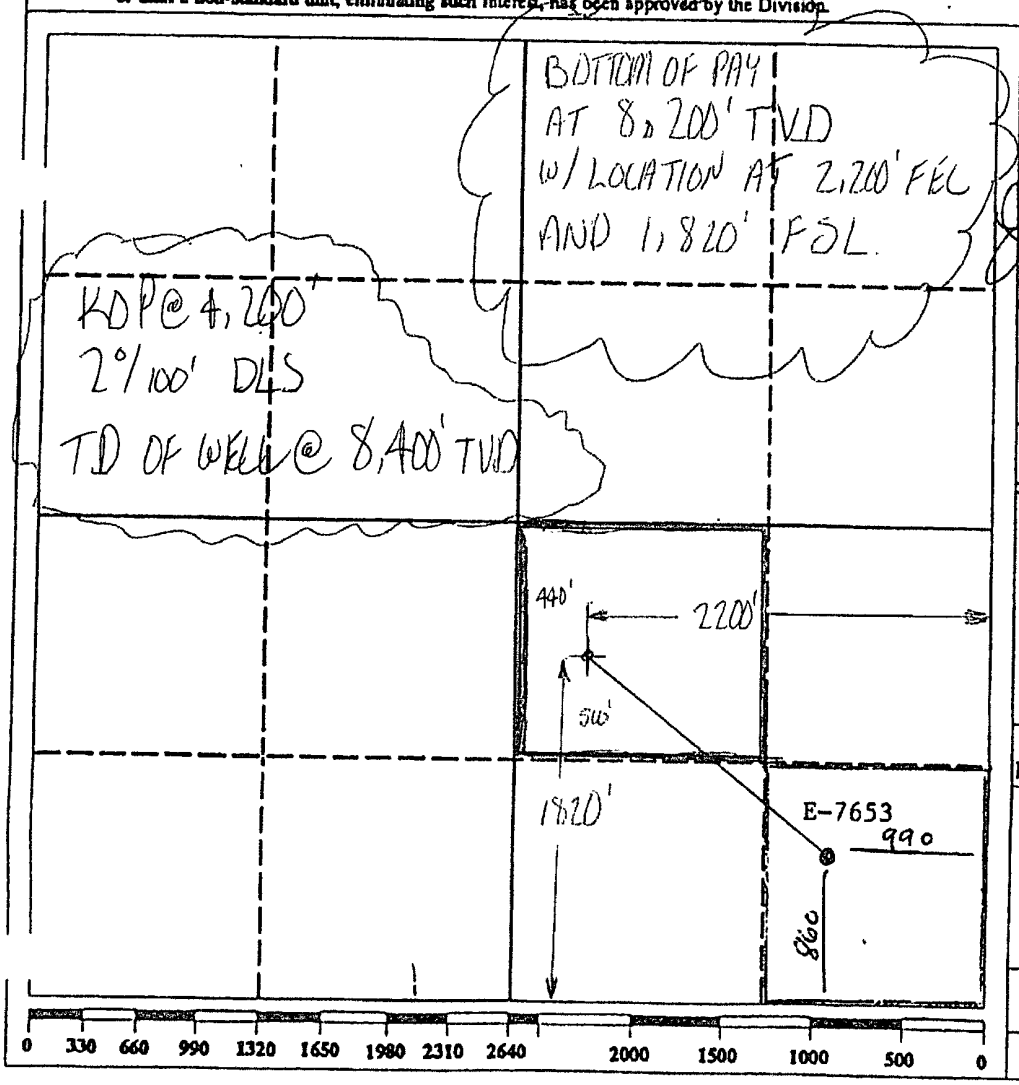
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communitization, unitization, force-pooling, etc.?

☐ Yes ☐ No If answer is "yes" type of consolidation _____

If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if neccessary. _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.



OPERATOR CERTIFICATION

I hereby certify that the information contained herein in true and complete to the best of my knowledge and belief.

Signature: Juanita Goodlett

Printed Name: JUANITA GOODLETT

Position: PRODUCTION SUPERVISOR

Company: YATES PETROLEUM CORPORATION

Date: 5-4-93

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervison, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed: REFER TO ORIGINAL PLAT

Signature & Seal of Professional Surveyor: dated 5/2/91

Certificate No.

LIME ROCK RESOURCES

LRE OPERATING, LLC
Sidetrack Procedure
NOWATA AGR STATE #1
3/05/2012

API # 30-025-31244

Surface Location: 860' FSL & 990' FEL
Section 09-T18S-R35E (Unit P)

Bottom Hole Location (Proposed): 1,877' FSL & 2,217' FEL
Section 09-T18S-R35E (Unit J)
Lea County, New Mexico

Prepared by: _____ _____
Jeffrey W. Patton, P.E. Date

Jeffrey Patton – Production Engineer
Voice.....713-345-2138
Fax.....713-345-2188

Distribution (Approved copies):
Tim Miller
Gary Biesiadecki
Jonathan Hickman
Jerry Smith
Aubrey Cunningham
File

Attachments: Plat, Geoprog, Well Plan, AFE, WBD

Drilling Procedure
Nowata AGR State #3
Lea County, New Mexico

Objective of Proposed Work:

Plug-back the existing T&A wellbore, set a CIBP and window out the 7" production casing. Drill a build and hold directional curve up dip to the 2nd Bone Spring Carbonate and complete. TD will be 8,400' TVD (8,737' MD).

Special Considerations:

Kick-off point in the 7" casing will be at 4,200'. A CIBP will be set and a oriented whhipstock will pointed at 308 deg azimuth. Once the window is cut, a 6-1/8" hole will be directionally drilled starting with 2 deg/100' BR and held constant at 24.6 deg until TD. The target is the 2nd Bone Spring Carbonate at 8,200' TVD (8,517' MD). This pay intersection will be 960' north and 1,210' west of the wellhead with a displacement of 1,544'. TD of the well will be located 1,016' north and 1,282' west of the wellhead with a displacement of 1,636'. **Hard lines for the 40 acre unit are 330' from the edge of the unit. The wellbore cannot cross or be completed within the 330' setback line.**

NOTE: LRE, et al rights end at 5000' TVD from the surface. We will drill beyond 5000' TVD.

Contact Information:
NMOCD - Artesia
Office: (575) 748-1283
Document all Notifications on Daily Report

Lime Rock Resources Personnel				
NAME	**TITLE**	**OFFICE #**	**HOME #**	**CELL #**
Tim Miller	Chief Operating Officer	713-292-9514	281-360-2795	281-467-0916
Jeff Patton	Production Engineer	713-345-2138		713-492-6503
Gary Biesiadecki	Geologist	713-292-9547		832-331-2554
Elizabeth Burton	Reservoir Engineer	713-292-9521		713-751-9844
Chuck Reagan	Landman	713-292-9548	281-493-6464	713-805-5780
Michael Barrett	Field Superintendant	575-623-8424	575-623-4707	505-353-2644
Jerry Smith	Assistant Production Supervisor	575-748-9724	575-746-2478	505-918-0556

Service Company Contact List				
PRODUCT / SERVICE	**COMPANY**	**CONTACT**	**OFFICE #**	**CELL #**
Cementing	Baker Hughes	Mike Sarabia Ivan Valenzuela	575-746-3140	575-513-2293 432-634-7361
Stimulation	Baker Hughes	Mike Sarabia Ivan Valenzuela	575-746-3140	575-513-2293 432-634-7361
OH Logging				
Mud Logging	Quality Logging	Chad Stephens	432-682-7168	432-894-2213
Tubulars	Crockett Trucking	Cutler Crockett	575-365-2200	575-703-5974
Casing Float Equipment	Davis Lynch	Owen Puckett – P&P Tools	505-365-8580	505-365-8580
Safety Equipment	Assurance Fire & Safety	John Whitney	575-396-9702	575-441-2224
Water	Jim's Water Service	Fred Cereceres	575-748-1352	575-365-7846
3rd Party BOP Testing & Choke System	Mann Welding	Cash Kirkpatrick	575-396-4540	575-631-0802
Mud	Artesia Lumber	Armando Garcia	575-748-1363	575-748-7695
Closed Loop Mud System	Closed Loop Specialties	Mike Harrington Curtis Davis	575-885-3996	432-296-0513 575-706-4605
Cuttings Disposal	Controlled Recovery, Inc. (R360)	Les Elliot	575-393-1079	575-602-1752
Tank Rentals	Two State Tank Rental	George Morreau	575-391-8265	575-441-8579
Casing Crew	Bull Rogers	Nathan Jernigan	575-397-3931	575-390-2008
Gyro and Gamma Ray Sub				
PVT and Drilling Data	PASON	Jim Rose	Support – 713-693-8700	575-441-4179
Directional Tools, Motors, MWD, Drillers, LWD GR	Wellpath	Dwight McLellan Duane Mcmahon	505-514-8816 936-689-2269	505-514-8816 936-689-2269
Camp, Sewer, etc.	HB Rentals	Rusty Herrell	575-628-8391	432-270-8139
Intercom System	Chapman Services	Merle Chapman		432-368-9313
Drilling Consultant	Lee Consulting	Gene Lee (office)	LeeConInc@aol.com	575-513-4548
Drilling Consultant	Lee Consulting	Gary Fatheree	gfatheree@gmail.com	940-389-6044

Drilling Consultant	Lee Consulting	Gary McClelland	Garymcc50@earthlink.net	903-503-8997

Driving Directions: **Go east of Artesia on 182 to junction 529. Turn right on 529 and go east to junction 238 (Buckeye cutoff). Turn left and go north 4 miles. Turn right and go 0.4 miles east. Turn left and go north 0.9 miles. Turn right for 0.1 miles to hourglass. Turn left and go 0.25 miles to location.**

Notifications: **NM OCD – Artesia 575-748-1283**
Starting to drill the sidetrack and before cementing of Production Casing.

Field Contact: **Jerry Smith**
575-748-9724 ofc
505-918-0556 cell
jsmith@limerockresources.com
Lime Rock Resources
PO Box 1302
303 East Main
Artesia, NM 88210

Geological Data: **Gary Biesiadecki - Lime Rock Resources**
713-292-9547 ofc, 832-331-2554 cell
gbiesiadecki@limerockresources.com

Mudlogger: **RU @ 7,000' MD and monitor gas in drilling mud recording same, then collect 10' samples f/7,000' – TD, describing sample attributes and hydrocarbon shows.**

Quality Logging: **Chad Stephens, Permian Basin Operations Manager**
432-682-7168 ofc 432-894-2213 cell
432-682-7199 fax chad@qualitylogging.com

Formation Tops			
Queen	4,439'	Delaware	5,773'
Penrose	4,820'	Bone Spring	6,624'
Grayburg	4,840'	1st Bone Spring	8,050'
San Andres	5,134'	2nd Bone Spring	8,490'

Casing Program: **Crockett Trucking**
Cutler Crockett
575-365-2000 ofc
575-703-5974 cell
crocktruck@pytn.net

United Drilling:

Angel Salazar, Owner	**Poncho Gonzales–Drilling Superintendant**
575-910-2003 cell	**575-910-2018 cell**
575-910-2002 truck cell	**Juan Aguilar, Tool Pusher**
575-622-3407 home	**575-910-2007 cell**

Logging Program: **"TRIPLE COMBO with SPECTRAL GR" - Dual Lateral log, MicroSpherical Focused Log, & Spectral Density Log f/ TD to Surface Pipe Depth; Dual Spaced Neutron Log & Compensated Spectral Natural GR log f/ TD to 450' MD.**

Halliburton Wireline & Perforating Service - Hobbs, New Mexico District
800-844-8451 Main/24 hr. Dispatch 915-561-5936 Fax

Josh Mount, District Service Manager – 575-631-6130 Cell, 575-392-0762 ofc (josh.mount@halliburton.com)
Carlos Mercado, OH Service Coordinator – 575-631-3057 Cell, 575-392-0784 ofc (carlos.mercado@halliburton.com)

Mud Program: **Artesia Lumber: 575-748-1363**
Armondo Garcia, Artesia Lumber Mgr.: (575) 748-7695
Phil Bussell, Mud Engineer: 575-513-0786 Cell; 575-392-7380 Home
Michael Evans, Buckeye Inc., Office: 432-682-7422, Cell: 432-413-6483
Steve Spyres, Engineering Mgr.: (432) 634-0793

PROCEDURE

1. Check well for pressure. Check both the 7" casing and the 7" x 9-5/8" csg annulus. Note the pressure on the morning report. Bleed off pressure and check for flow. If necessary, rig up tank and stick iron to bleed off pressure. Once bled off, monitor for after flow. Make sure well is not flowing on the casing or annulus. If well appears to be flowing, contact Houston for additional instructions.

2. Dig out around cellar to access bolts to ND the tbghead. Check casinghead and casing spool for size and pressure ratings. It is suspected that the casinghead and spool are 11" x 3K and the tbghead is 11" x 3K bottom by 7-1/16" x 5K top.

3. MI a ND crew and ND production tree. ND the tbghead. Inspect equipment and set off to the side of location use later. Check the cut-off and bevel on the 7" casing and re-work as needed for installation of next csg spool. NU a new spool with 11" x 3K bottom by 11" x 5K top with 7" secondary seals. Follow manufacturers' instructions for installation. Once installed, test seals. Install a 11" blind flange to secure well until workover rig is available. NOTE: It may be possible to install the tbghead back on the casing spool and then install a 7-1/16" blind flange to secure well.

4. MIRU WOR. MI rental tools including pump, pit, power swivel, pipe rack, XO's, catwalk, BOP's, 3-1/2" workstring (PH-6) and other tools as needed to cut and mill a window in 7" casing.

5. ND blind flange and NU a DSA and 7-1/16" x 5 K BOP's. The DSA will be needed to get from the 11" x 5K csg spool flange to the 7-1/16" x 5K BOP flange. NOTE: It may be possible to install the tbghead in place of a DSA.

6. MIRU WLU. PU & RIH w/GR, JB & CCL to 4,300'. Get on depth with collars shown on Computalog's CBL/CCL dated 03/27/93. POOH. PU & RIH w/7" CIBP (for 26.0# csg). Identify the collar at 4,205' KB and set CIBP at 4,200' KB. After setting CIBP, re-tag to ensure plug is in place.

7. RU mud pump and load hole with FSW. Pressure test CIBP to 1,000 psi.

8. MIRU Gyro-Data. RIH and get wellbore inclination and azimuth from surface to the CIBP. Get survey at depths required by the state (typically 200' or 500' intervals). Supply official survey data to the directional company for tie-in. Provide certified copy to LRE in Houston.

9. MI the whipstock assembly and other tools as needed. PU and start TIH w/whipstock BHA as directed by the toolman. Also run UBHO sub to orient the whipstock. Continue TIH w/3-1/2" PH-6 workstring. Tally pipe accurately.

10. Once on bottom (at ~4,200') with the BHA, RU and RIH w/gyro. Turn and orient whipstock to the correct azimuth as shown on the "final" directional drill plan. (about 308.4 deg).

11. Land and lock whipstock assembly in place as instructed by toolman. POOH and RDMO gyro tools.

12. PU power swivel. Load rig pit and prime pump with FSW (or 3% KCl water). Establish circ down tbg and back out to pit (it may be acceptable to circ down the csg and out the tbg). Make sure good circ is established before milling is started. If necessary, add chemicals to the water if viscosity or torque-lube is needed before milling.

13. Break loose from the whipstock and start cutting/milling the window. RPM, weight and pump rate will be directed by the toolman. Catch returns across shaker (or screens). Run ditch magnet in pit (probably just in front of pump suction) and monitor metal shavings.

14. Once milling is complete, circ and clean hole as needed for TOH. It may be necessary to PU additional mills and string mills (or other tools) to "clean-up" the window. It may be necessary to make multiple trips to get the window in good shape.

15. PU 6-1/8" tri-cone bit and try to drill formation. It would be preferred to get 40' of formation drilled with the WOR before moving in the drilling rig.

16. ND BOP's and NU blind flange. Release and return all rental tools and RDMO WOR.

MOVE IN DRILLING RIG, TOOLS AND RENTAL ITEMS

17. MI dirt contractor re-open location as needed for rig, pits, trailers, mud storage, backyard, etc. Blade access road as needed for heavy traffic. Add rock or caliche around wellhead for rig stability and sub-structure.

18. Dig out around wellhead and down into cellar to inspect condition. Wellhead may need to be stabilized (and straightened) to support the drilling loads from the BOP stack, spools, etc. It may be necessary to add 8 to 10 yds of ready mix concrete around the wellhead to improve stability. Contact Houston for additional guidance.

19. MIRU Drilling rig and all rental tools. MIRU directional drilling tools and equipment. Leave room on location for mud logger. MI mud additives and chemicals. MI close loop mud system that complies with state regulations. Fill the active mud system with FSW.

20. Contact the NMOCD office as required 24 hrs prior to starting the side track.

21. ND blind flange and NU 11" x 5K BOPE including Hydrill, Double Ram BOP (w/blinds on top, pipes on bottom), mud cross, choke manifold, mud/gas separator, emergency blow down tank, and kill lines. Test same to 250 psi low pressure / 3,000 psi high pressure using a third party testing firm and record 10 minute tests on chart recorders using test plug in casing head. Note tests of BOP's, choke, choke line, choke manifold, valves, etc. on daily report.

22. It may be necessary to PU a regular drilling BHA (Tri-cone bit, bit sub, DC's) and drill 40' to 60' of formation just past the window. The workover rig may have been unable to drill formation making it necessary for the drilling rig to drill some "regular hole" just past the window.

23. PU 6-1/8" PDC bit (HTC HC505ZX or similar), mud motor, MWD (with GR) and directional drilling BHA. Wellpath Energy Services will assemble the directional BHA needed to do the job. PU and TIH w/4-3/4" DC's and a 3-1/2" drilling string (to ~4,200'). Test motor and MWD just above the window. Load and circ hole with FSW or a lite mud. The mud engineer/mud company should recommend a mud system.

24. Before drilling the directional drill "plan", contact Houston to ensure everyone has the correct plan and target shown on their paperwork. Do not make any new hole until everyone is on the same page. Hang a wall plot in the trailer and mark surveys as well is being drilled.

25. Start drilling along the well plan. Check pick-up weights, pump rate, pump pressure, motor differentials, etc. Slide and rotate drill as necessary from KOP to TD. Use a 2°/100' build rate to get to an inclination of 24.6°. Once the inclination angle is reached, hold the wellbore along an azimuth of 308.43°. Continue to drill and maintain the well path until reaching TD (at 8,737' MD & 8,400' TVD). If any problems arise with BHA, MWD, motor or bit, POOH and PU new tools and return to drilling operations. NOTE: RU mud loggers at 6,200' MD and start 10' samples and sample descriptions until reaching TD.

26. Send in all drilling, survey and mud logger reports daily. Additional reports may be more often as the wellbore approaches the pay zone.

27. Drill with the lightest mud weights possible. Run mud across shakers and thru de-sanders and de-silters. Pay close attention to pump rate/pressure and penetration rate. It may be possible that penetration rate may exceed hole cleaning rate (a function of pump rate) and the annulus will load-up with drill cuttings. It may be necessary to time drill certain areas of the hole when P rate exceeds cleaning. It is also possible that the well may lose circ as the wellbore reaches the pay interval (~8,000' MD). It's recommended that a LCM pill be mixed and ready if lost circ is encountered. It is also recommended that pump rate and pressure be reduced to lower BHP along with keeping drill cuttings in the annulus to a minimum if lost circ is encountered. Smart drilling will prevent knocking the bottom out of the well.

28. Once geology agrees the well has reached TD (which should be around 8,737' MD), circ and condition hole. If any borehole conditions suggest other than a perfect borehole, short trip the drill string back to the window then back to bottom. Report any problems and be prepared to condition mud or perform other mitigating operations if hole conditions dictate. TOH LD directional tools. Stand DP back in derrick.

29. MI ~8,900' of 4-1/2" casing. Tally and rack the casing. Clean and inspect threads. Drift casing.

30. MIRU open hole WLU. Run triple combo-LLD, porosity (Density and Neutron) w/spectral gamma ray from TD to 6,000' MD. Keep borehole caliper tool open to the window to calculate cement volume. RD loggers and if orders are issued to run casing, prep to run casing as shown below.

31. TIH and C&C mud. TOH and LD DP.

Length	Size	Weight	Grade	Conn.	Collapse (100%)	Burst (100%)	Tension (100%)	Jnt Strength (100%)
8,737'	4-1/2"	13.5#	N-80	LT& C	8,540	9,020	308K	270K

32. Run the 4-1/2" casing with float shoe, 1 joint of casing and a float collar. Run 2 centralizers on the bottom joint then 1 centralizer on every joint for the first 30 joints off bottom. Run remaining centralizers every third joint from 7,400' to 6,000' MD (about 11 centralizers). Use a "API Modified Casing Thread compound" casing thread dope that meets API Spec 5A2. Use thread lock on the FS & FC. Correctly dope and torque casing to:

Minimum	Optimum	Maximum
2,070 ft-lbs	**2,760 ft-lbs**	**3,450 ft-lbs**

33. Install cement head on the 4-1/2" casing. RU cementers and cement as follows:

Slurry	Sacks	Slurry Description	Mix Water (gal/sk)	Yield (ft3/sk)	Excess	Calculated Fill (ft)	Weight (ppg)
Spacer 1		20 bbls Mud Flush					
Lead	**238**	35:65 (Poz:C) + 6% Gel + 5% Salt + 5 pps LCM-1 + 0.25% R-3 + 0.125 pps Cello Flake + 92.5% FW	9.65	1.85	50%	3,112'	12.8
Tail	**150**	Cl C cmt + 0.25% R-3 + ¼ pps cello flake + 55.98% FW	6.31	1.328	30%	1,625'	14.8

Note:

- Verify all cement/displacement volumes and rates with engineer and cementer prior to pumping. Adjust cement volumes according to BHV Logs.
- Mix and pump all cement at the highest possible rate, but not less than 3.5 BPM.
- Displace the cement with FSW at 3.5 BPM or higher.
- Mix the cement with good, clean fresh water. (Do not mix cement with rig water unless tested for compatibility).
- Slow down the pump 10 bbls short of displacement to the float collar and bump the top plug 1,000 psi over final lift pressure keeping max pressure under 3,500 psig.
- Check floats. If floats do not hold, re-pump the volume that flowed back and maintain pressure while WOC.
- RD cementing equipment.

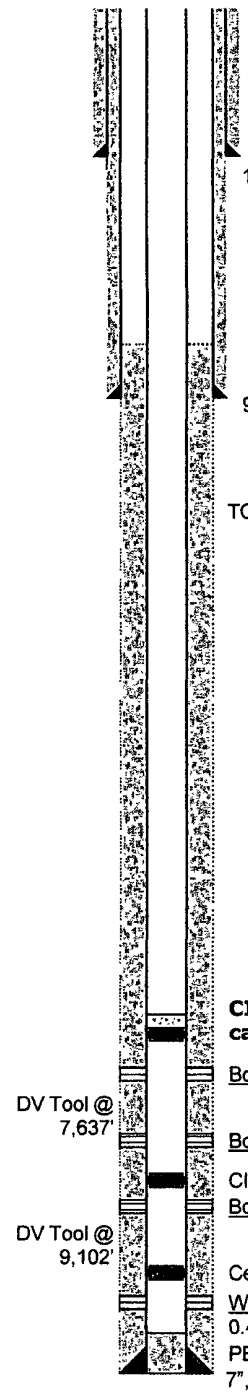
34. Once the cement is displaced, drop a set of FC-22 type casing slips thru the BOP's. Set slips with an additional 10K over casing weight.

35. ND BOP's. Make final cut on casing and install original 11" x 5K by 7-1/16" x 5K tbghead. NOTE: Change out secondary seals to fit 4-1/2" casing.

36. Release the rig and clean up the location for completion.

LIME ROCK RESOURCES

WELLBORE AFTER TA



TOC @ Surface

13-3/8", 54.5#, J-55, ST&C Surface Casing @ 450'

TOC @ Surface

9-5/8", 36 & 40#, J-55 Intermediate Casing @ 3,850'

TOC @ 1,700'

Current wellbore 9/29/11

CIBP to be set @ 7,200' w/ 35' cement on top of plug to TA well (plug and casing to be tested to 500#)

Bone Springs Perfs: 7,259-65'; 7,314-20' & 7,454-70' (56 – 0.42" DIA holes)

DV Tool @ 7,637'

Bone Springs Perfs: 8,025-36' (22 - -0.42" DIA holes)

CIBP @ 8,250' w/ 35' cement on top of plug

Bone Springs Perfs: 8,282-90' (32 holes – 0.42" DIA)

DV Tool @ 9,102'

Cement Retainer @ 10,268'

Wolfcamp Perfs **SQUEEZED**: 10,318-32' (57 holes – 0.42" DIA)

PBTD @ 10,868'

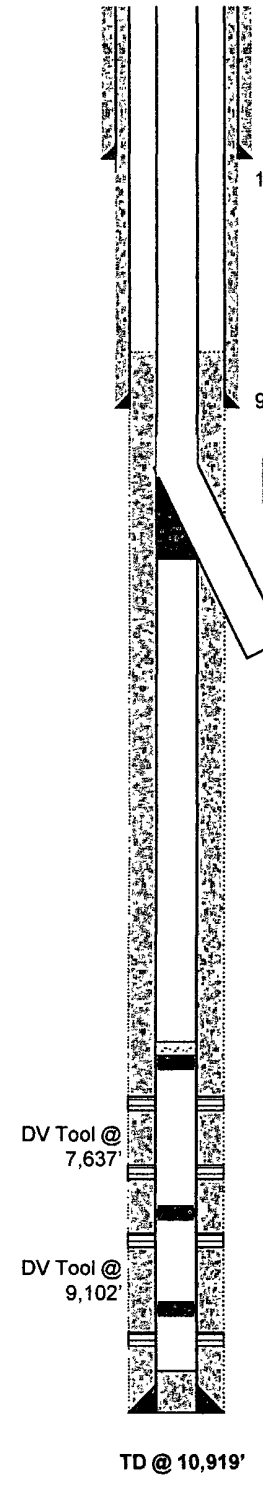
7", 26#, J-55, N-80, & S-95, LT&C Casing @ 10,910'

TD @ 10,919'

Lime Rock Resources
Nowata AGR State 1
Sec 9-18S-35E
Lea County, NM

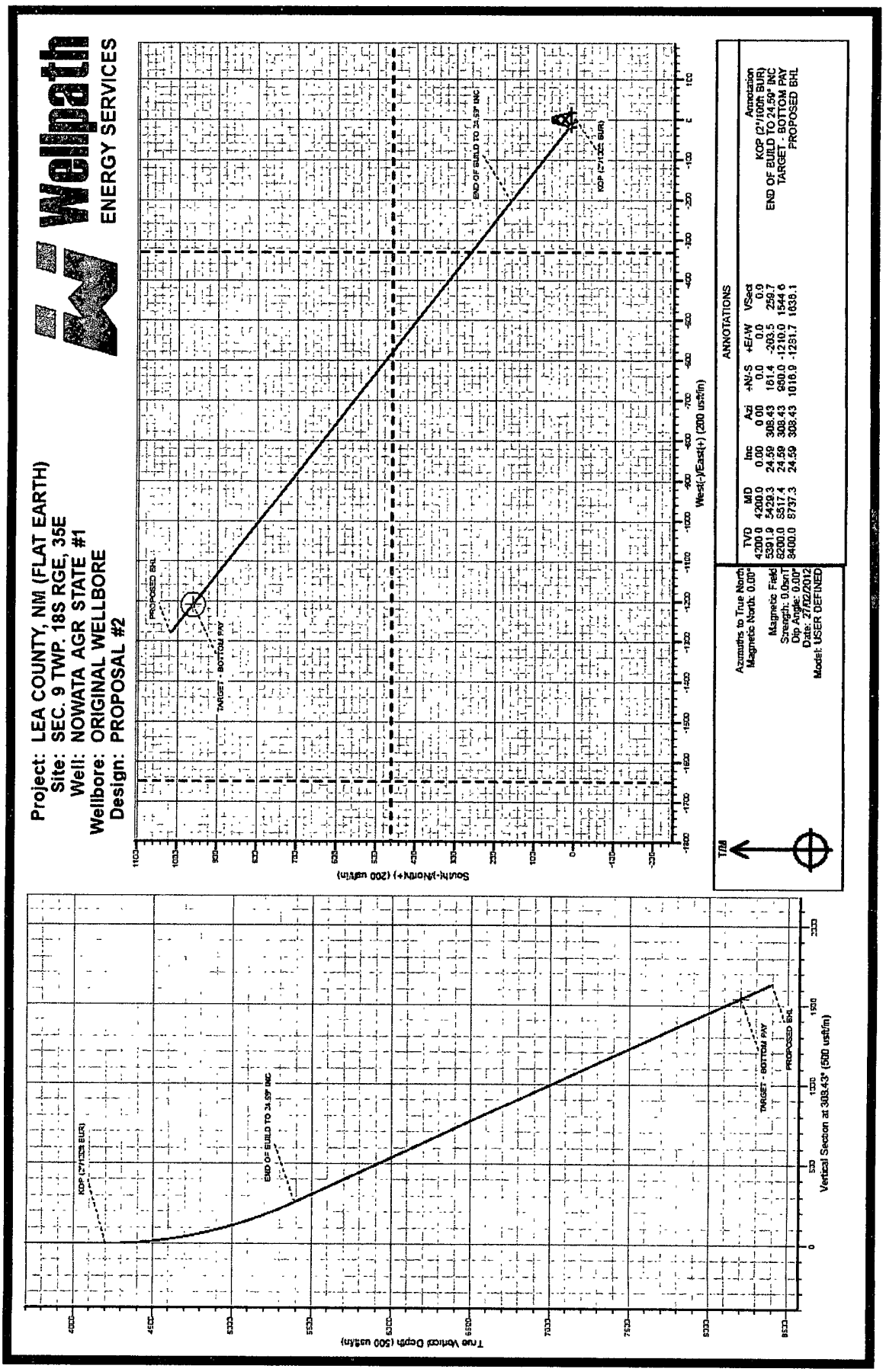
LIME ROCK RESOURCES

PROPOSED WELLBORE



PROPOSED
Whipstock and Window out the 7" Casing at 4,200' using Workover Rig

Lime Rock Resources
Nowata AGR State 1
Sec 9-18S-35E
Lea County, NM


Project: LEA COUNTY, NM (FLAT EARTH)
Site: SEC. 9 TWP. 18S RGE. 35E
Well: NOWATA AGR STATE #1
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL #2
Wellpath
ENERGY SERVICES
ANNOTATIONS
TVD MD Inc Azi +N/-S +E/-W VSect Annotation
4200.0 4200.0 0.00 0.00 0.0 0.0 0.0 KOP (2°/100ft BUR)
5391.9 5429.3 24.59 308.43 161.4 -203.5 259.7 END OF BUILD TO 24.59° INC
8200.0 8317.4 24.59 308.43 960.0 -1210.0 1544.6 TARGET - BOTTOM PAY
8400.0 8737.3 24.59 308.43 1016.8 -1281.7 1638.1 PROPOSED BHL
Azimuths to True North
Magnetic North: 0.00°
Magnetic Field
Strength: 0.0nT
Dip Angle: 0.00°
Date: 27/02/2012
Model: USER DEFINED
TFM
KOP (2°/100ft BUR)
END OF BUILD TO 24.59° INC
TARGET - BOTTOM PAY
PROPOSED BHL
South(-)/North(+) (200 usft/in)
West(-)/East(+) (200 usft/in)
True Vertical Depth (500 usft/in)
Vertical Section at 308.43° (500 usft/in)