Form 3160-5 UNIT (August 1999) DEPARTMENT BUREAU OF LA SUNDRY NOTICES Do not use this form for abandoned well. Use For	FORM APPROVED OMB NO. 1004-0135 Expires: November 30, 2000 5. Lease Serial No. LC-065680 6. If Indian, Allottee or Tribe Name					
SUBMIT IN TRIPLICATE	r proposals to drill or to re-enter an rm 3160-3 (APD) for such proposals 3 4 5 6 7 8 3 4 Other Instructions on reverse side	7. If Unit or CA/Agreement, Name and/or No.				
 Type of Well X Oil Well Gas Well Other Name of Operator Santa Fe Snyder Corp. 3a. Address 550 W. Texas, Suite 1330, Midland, Location of Well (Footage, Sec., T., R., M., or Surv (J), 1650' FSL and 1980' FEL, Sec. 	8. Well Name and No. Shugart "23" Fed Com #1 9. API Well No. 30-015-30448 10. Field and Pool, or Exploratory Area How the Luster (Bone Springs) Tamana 11. County or Parish, State Eddy NM					
12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA						
TYPE OF SUBMISSION	TYPE OF ACTION					
X Notice of Intent Subsequent Report Final Abandonment Notice	Alter Casing Fracture Treat Reclamatic Casing Repair New Construction X	te Other ily Abandon sposal				

Describe Proposed or Coommpleted Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate direction decomposed work and approximate decomposed work and approx
following completion of the involved operations. If the operation results in a minipie completion of recompletion, have been completed, and the operator has testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has
determined that the final site is ready for final inspection.)

Santa Fe Snyder plans to Recomplete this well from the North Shugart (Wolfcamp) to the North Lusk (Bone Springs per the attached procedure.

14. I hereby certify that the foregoing is true and correct Name (Printed/Typed) Bill Keathly	Regulatory Specialist	
Big Kacikky	Date 12-30-99	
THIS SPACE FOR FEDERA		
Approved by	TIMETROLEUM ENGINEER	DatJAN 0 6 2000
Conditions of approval, if any, are attached. Approval of this notice does not warrant certify that the applicant holds legal or equitable title to those rights in the subject le which would entitle the applicant to conduct operations thereon.	of Office case	
Title 18 U.S.C. Section 1001, and Title 43 U.S.C. Section 1212, makes it a crime for States any false, fictitious or fraudulent statements or representations as to any matter within its	any person knowingly and willfully to make to any sjurisdiction.	department or agency of the United



SANTA FE SNYDER CORPORATION. CENTRAL DIVISION Recompletion Workover Procedure AFE #299216

DATE :	Oct 15, 1999	LOCATION :	Sec. 23, T-18-S, R-31-E 1650' FSL & 1980' FEL
FIELD :	North Lusk (Bone Spring)		Eddy County, New Mexico

- LEASE: Shugart 23 Fed #1
- **OBJECTIVE :** Complete & test Bone Spring carbonate at 8254'-62', 8286'-8300', & 8306'-10'

CONDITION OF HOLE :

TOTAL DEPTH : 12,000' **PBTD :** ± 11,903 **KB :** 3692' (17' A.G.L.)

CASING: 13-3/8" 48# H-40 @ 700'. Cmt w/375sx 35:65:6 Cl-C + 2% CaCl, ¹/₄ PPS celloflakes & 200sx Cl-C + 2% CaCl. Circ 181sx to surface

8-5/8'', 24#, K-55 @ **4340'**. Cmt w/650sx 50:50 Cl-C + 10% gel, 5% salt, ¹/₄ PPS celloflakes & 200sx Cl-C + 2% CaCl. Circ 45sx to surface

5¹/₂''20#, N-80, LT&C + 5¹/₂'' (11,945'-7639'), 5¹/₂''17#, J-55, LT&C (7639') and 5¹/₂''17#, N-80, LT&C(4569-surf.). Shoe @ 11,945', FC @ 11,903. Cmt w/1100 sx 50:50 Poz-H.

- **PERFORATIONS:** 10014'-17', 10027'-60', 10086'-96' Plugged perfs: 11720'-724', 11750'-753' & 11780-783
- **TBG DETAIL :** 2 3/8" 4.7#, P-110. 2 3/8"x2 7/8" X-over and UNI-VI Packer @9,932'
- **REF. LOG:** Schlumberger Platform Express Three Detector Litho-Density Compensated Neutron/Gamma Ray, run 1-25-99

PROCEDURE : Complete and test 8254'-62', 8286'-8300', & 8306'-10'

- 1. Hold pre-job safety meeting. MIRU completion rig. ND Wellhead, NU BOPE.
- 2. Unlatch from packer and circulate bottoms up with 2% KCl. Latch onto packer and unseat. POOH 2 3/8" tbg and packer.
- 3. Add 60' of cement to plug at 11,680' in order to comply with BLM abandonment requirements.

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SANTA FE SNYDER CORPORATION. CENTRAL DIVISION Recompletion Workover Procedure AFE #299216

- 4. MIRU Wireline. PU CIBP and RIH to 9,980'. Set BP and dump 80' cmt. POOH & LD 2 3/8" tbg.
- 5. MIRU perforators. Perforate with 4" casing guns w/2 premium charges/ft, 90° phasing, over the following intervals:

8254'-8262' 8286'-8300' 8306'-8310' (26' net)

- PU 2 jts 2 7/8" tbg., 1.781" F nipple, 10' pup jt, 5 ¹/₂" 20# UNI-V packer, on/off tool, 1 jt 2 7/8" tbg, 1.81" SN, and test into hole on 2 7/8" 6.5# L80 tbg to 8300' (tail depth). Leave packer unset.
- 7. MIRU acidizers. Treat tbg with 250 gals 15% HCl and reverse out. Spot 250 gals 15% HCl with chelating agent, corrosion inhibitor, nonemulsifier, and friction reducer across perfs at 8254'-8310'. PUH and set packer at 8150'. Breakdown perfs and acidize with 2000 gals acid, pumping 2-3 BPM. Drop 30 1.3 s.g. ball sealers, 1 every 40 gals for first 1200 gals. Pump remaining acid and flush to bottom perf plus 2 bbls with 2% KCl. RD Acidizers and flow well back.
- 8. Flow or swab well to clean up. Sample fluid cut and composition as necessary.
- 9. If warranted, Acid Fracture with 7000 gals cross-linked 15% HCl, energized with CO2, through tubing. Pump at 4 BPM and 5000 psi maximum surface pressure. Drop 30 1.3 sg ball sealers evenly spaced through first 3000 gallons. Surge sealers and let fall, then pump remaining acid and 1400 gallon 2% KCl flush at maximum rate to extend fractures. Shut-in 15 minutes and then flow back to clean up. RD Acidizers.
- 10. Flow and swab well as necessary to clean up.
- 11. Consult with Division office regarding additional testing and installation of artificial lift equipment.

Prepared by <u>Bradley C. Cross</u> Brad Cross (915) 686-6655 (ofc), (915)694-7423 (hm) Senior Engineer

Reviewed by__

James Moore (915) 686-6624 Division Superintendent, Production



DISTRICT 1 P. O. Box 1980 Hobbs, NM 88241-1980

<u>DISTRICT II</u> P. O. Drower DD Artesia, NM 88211-0719

DISTRICT III 1000 Rio Brazos Rd. Aztec, NM 87410

DISTRICT IV P. O. Box 2088

Santo Fe, NM 87507-2088 WELL LOCATION AND ACREAGE DEDICATION PLAT

> Pool Name ² Pool Code API Number North Lusk (Bone Spring) 41450 30-015-30448 • Well Number ³ Property Name · Property Code 1 SHUGART '23' FEDERAL 23808 * Elevation • Operator Name ' OGRID No. SANTA FE ENERGY RESOURCES, INC. 3675' 20305 " SURFACE LOCATION Lot Ida Feet from the North/South line Feet from the East/West line County Range Township UL or lot no. Section EDDY EAST 1980' SOUTH 1650 18 SOUTH 31 EAST, N.M.P.M. 23 J "BOTTOM HOLE LOCATION IF DIFFERENT FROM SURFACE Lot Ida Feet from the North/South line Feet from the East/West line County Range Township UL or lot no. Section 14 Consolidation Code 15 Order No. 13 Joint or Infill 12 Dedicated Acres 40 NO ALLOWABLE WELL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION **OPERATOR CERTIFICATION** I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. Signature Diel 7 Printed Name Bill Keathly Title Regulatory Specialist Date 12-30-99 SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of octual , surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. Date of Survey 1980' -1212 Ø 1650' P.S. #12128

State of New Mexico Energy, Minerals, and Natural Resources Department

OIL CONSERVATION DIVISION

P. O. Box 2088

Santa Fe, New Mexico 87504-2088

Instructions on back Submit to the Appropriate District Office State Lease - 4 copies Fee Lease - 3 copies

Form C-102

Revised 02-10-94

Fee Lease — 3 copies

AMENDED REPORT

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