

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

5. Lease Designation and Serial No.  
NOG 8707-1145

6. If Indian, Allottee or Tribe Name  
Navajo

7. If Unit or CA, Agreement Designation  
N/A

8. Well Name and No.  
Rattlesnake 160

9. API Well No.  
30-045-08728

10. Field and Pool, or Exploratory Area  
Rattlesnake Field

11. County or Parish, State  
San Juan, NM

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals.

SUBMIT IN TRIPLICATE

1. Type of Well  
☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator  
Harken Southwest Corporation

3. Address and Telephone No.  
P.O. Box 612007 Dallas, TX 75261-2007 (972) 753-6900

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
NW/SW Section 1-29N-19W  
1765' FSL & 307' FWL  
1997 330

12 CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
<input checked="" type="checkbox"/> Notice of Intent	<input checked="" type="checkbox"/> Abandonment
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back
	<input type="checkbox"/> Casing Repair
	<input type="checkbox"/> Altering Casing
	<input type="checkbox"/> Other
	<input type="checkbox"/> Change of Plans
	<input type="checkbox"/> New Construction
	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Harken Southwest Corporation (HSW) personnel have concluded the evaluation of the subject wellbore. It has been determined that the subject well can not maintain economic production rates. Therefore, attached you will find the following information for your review and approval:

1. Current wellbore information.
2. Diagram of current wellbore configuration
3. Plug and Abandonment procedures
4. P&A'd wellbore diagram

Upon receipt of BLM approval, HSW will schedule the permanent abandonment of this well during the 3<sup>rd</sup> or 4<sup>th</sup> quarter of 1998. Should any questions arise, please feel free to contact Mr. Richard Cottle or the undersigned at (972) 753-6900.

CC: State of Utah  
Navajo Nation - Minerals Dept  
BIA - Gallup, NM

14. I hereby certify that the foregoing is true and correct.

Signed Rachelle M. Putzomery Title Production Administrator Date 4/23/98

(This space for Federal or State office use)

Approved by /s/ Duane W. Spencer Title \_\_\_\_\_ Date MAY - 1 1998

Conditions of approval, if any:

**RATTLESNAKE #160**  
**1777' FSL & 330' FEL**  
**Section 1, T29N, R19W**  
**San Juan County, New Mexico**  
**April 2, 1998**

**Present Status:** SI – uneconomic oil well

**Elevation:** 5316' GL

**Total Depth:** 926'

**Casing Program:** 9 5/8", 36#, J-55, Set @ 36' with 30 sxs cement  
 7", 20#, J-55, Set @ 455' with 100 sxs cement  
 5 1/2", 14#, J-55, Set @ 917' with 40 sxs cement

**Open Perforations:** 736'-776', 890'-892'

**Shut-off Perforations:** 893' below cement

**PBTD:** 892'

**Production Equipment:** 25 joints, 2 3/8" tubing, open ended @ 752'

**Casing and Tubing Detail**

Depth	Size (in.)	Wt. #/ft	Grade Thread	Burst (psi)	Collapse (psi)	Yield M#	Drift (in.)	Capacity (bbl/ft)
Surf 455'	7	20.0	J-55	3740	2270	234	6.331	0.0404
Surf 917'	5 1/2	14.0	J-55	4270	3120	172	4.887	0.0244
Surf 752'	2 3/8	4.7	J-55 EUE	7700	8100	71.7	1.901	0.00387

# WELL REPORT

COMPANY: Harken Southwest Corp.

WELL NAME: Rattlesnake #160

### Present Configuration

SURFACE CSG. SET @ 56'

9 5/8", 364, J-55 (w) 30 str

Intermediate csg @ 455'

7", 20#, J-55 @ 100#XS

25 Juni  
2 3/8 + 5g

PERFS : 736 - 776'

PERFS: 890' - 893'

PERFS: \_\_\_\_\_

PRODUCTION STRING CSG. SET @ 917  
3 1/2", 14", 1-55 @ 405 x 3

TUBING SET @ 752'

PLUG BACK TOTAL DEPTH: 892'

NOTES:

EOT @ 752'

736'

776

890'

893

-PBTB @ 892' (1977 cleanout)

TD 926'

**PLUG AND ABANDONMENT**  
**Rattlesnake #160**  
**1777' FSL & 330' FEL**  
**Section 1, T29N, R19W**  
**San Juan County, New Mexico**

**P & A Procedure:**

1. MIRU, hold safety meeting, blowdown well, NU BOP's.
2. POH with 2 3/8" tubing. Remove SN. Install serrated collar.
3. RIH with 2 3/8" tubing, tag sand @ 892'.
4. Mix up 131 sxs (26 bbls) of Class 'B' cement and fill casing from PBTD @ 892' to surface (150% volume used for cement calculations).
5. W.O.C. 3 hours. RIH with 2 3/8" tubing to tag cement top. Fill to surface, if necessary. RD move out rig.
6. Cut casing 4' below surface. Weld on subsurface marker plate.
7. Reclaim location.

# WELL REPORT

COMPANY: Harken Southwest Corp

Plug & Abandonment

WELL NAME: Rattlesnake #160

SURFACE CSG. SET @ 56'  
9 5/8", 36#, J-55 @ 30 SXS

Intermediate csg @ 455'  
7", 20#, J-55 @ 100 SXS

PERFS: 736'-776'

PERFS: 890'-893'

PERFS: \_\_\_\_\_

PRODUCTION STRING CSG. SET @ 917'  
5 1/2", 14#, J-55 @ 40 SXS

TUBING SET @ \_\_\_\_\_

PLUG BACK TOTAL DEPTH: Surface

## NOTES:

Subsurface marker @ 4' below  
ground level

Cement from bottom hole to surface

DAKOTA 'A' perfs

DAKOTA 'C' perfs

TD 926'