

HARKEN SOUTHWEST BLACK ROCK NO 7X
NE SW 17-40N-29E, Apache Co. (881)

STATE: ARIZONA
COUNTY: APACHE
API 02-001-20296
FIELD: BLACK ROCK
WELL CLASS: D
OPR: HARKEN SOUTHWEST

40N-29E 17
NE SW
1750 FSL 1572 FWL
STATUS: J&A

TX BLACK ROCK

SPUD: 05/03/95 COMP: 05/06/95 ELEV: 6695 GR
ID: 40 (05/06/95) FM/TD: VALLEY FILL
CONTR: NOT RPTD (R) (VERTICAL)
PROJ DEPTH/FM: 8469 PARADOX PERMIT #881

COMP 5/6/95, J&A. NO CORES OR DSTS.

LOC DESCRIPTION: 7 MI SW TEEC NOS POS, AZ; LAT: 3687061 LONG: 10925891;
CASING: CSG NOT RPTD; NO LOGS RUN.
DRLG COMMENTS: LOG TOPS NOT RPTD.
OPER ADDR: DRAWER 612007, DALLAS, TX, 75281 PHONE (817) 695-4900;

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DATE 04/22/96 CARD # 00001-F COR

file 881

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

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 214/753-6900

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
 SW/4 SEC 17-40N-29E
 1572' FWL & 1750' FSL

5. Lease Designation and Serial No.
 NCG-8707-1142

6. If Indian, Allottee or Tribe Name
 NAVAJO

7. If Unit or CA, Agreement Designation
 N/A Permit 881

8. Well Name and No.
 BLACK ROCK 7X

9. API Well No.
 02-001-20296

10. Field and Pool, or Exploratory Area
 BLACK ROCK

11. County or Parish, State
 APACHE CO., AZ

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.)

A spudding unit was moved onto the approved location on May 3, 1995 and the well was spudded @ 10:30 am. After 3 days of drilling operations, the spudding unit was unable to continue drilling returns and drilling operations were suspended on May 6, 1995 with a hole depth of 40'. The rig was moved off on May 6, 1995. Harken has no further plans to drill this well from this surface location.

The hole did not encounter any horizons as it was some 160' shy of drilling thru the unconsolidated boulder/fill. Pursuant to consultation w/BLM officials, the hole will be backfilled and will be reclaimed as per the APD stipulations. The subsurface marker plate for Black Rock 7 will remain in place

cc: State of Arizona
Navajo Nation-Minerals
BIA - Gallup, NM
Navajo Nation-EPA

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

Signed Michelle Montgomery Title PRODUCTION ADMINISTRATOR Date 6/08/95

(This space for Federal or State office use)

Approved by _____ Title _____ Date _____

Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes 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.

*See instruction on Reverse Side

APR-19-1995 11:01 FROM HARKEN BAHRAIN TO 916026285106811 P.03

Form 3160-3
(July 1992)

SUBMIT IN TRIPLICATES
(Other instructions on reverse side)

FORM APPROVED
OMB NO. 1004-0136
Expires: February 28, 1995

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK
 DRILL DEEPEN

b. TYPE OF WELL
 OIL WELL GAS WELL OTHER SINGLE ZONE MULTIPLE ZONE

2. NAME OF OPERATOR
 Harken Southwest Corporation

3. ADDRESS AND TELEPHONE NO.
 P. O. Drawer 612007, Dallas, TX 75261 (817) 695-4900

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements*)
 At surface: SW/4 1572' FWL & 1750' FSL
 At proposed prod. zone: Straight Hole

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
 7 miles west-southwest of Teec Nos Pos, Arizona

15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig. unit line, if any)
 1572'

16. NO. OF ACRES IN LEASE
 50,000

17. NO. OF ACRES ASSIGNED TO THIS WELL
 160

18. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL, DRILLING COMPLETED, +/- 4450' OR APPLIED FOR, ON THIS LEASE, FT.
 +/- 6176'

19. PROPOSED DEPTH
 +/- 6176'

20. ROTARY OR CABLE TOOLS
 Rotary

21. ELEVATIONS (Show whether DP, RT, GR, etc.)
 THIS SECTION IS SUBJECT TO TECHNICAL AND PROCEDURAL REVIEW SUBJECT TO 43 CFR 3165.4
 6695' GR

22. APPROX. DATE WORK WILL START*
 3rd Qtr. 1994

23. PROPOSED CASING AND CEMENTING PROGRAM
 DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL CONDITIONS"

SIZE OF HOLE	GRADE AND CASING	WEIGHT PER FOOT	SETTING DEPTH	DEPTH OF CEMENT
18"	13-3/8"	48#	200'	265 sx to surface
7-7/8"	4-1/2"	10.5#	6176'	695 sx

This test will be drilled to the Paradox Formation.

The original APD was approved on 12/22/89; the well was spud on 5/22/90 and drilled to ±150' prior to the hole collapsing, the well was P&A'd on 5/24/90.

The redrill of the original application will be N 65° to the East 35' of the original location. This will be redrilled on the original location pad.

The original plat with revised footages from the section line is attached for reference.

Proposed drilling/operations procedures are attached.

Complies with State of Arizona Spacing Order 56; dated 9/89

cc: State of Arizona

IN ABOVE SPACES DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED: [Signature] Production Administrator DATE: 7/13/94

(This space for Federal or State office use)
 PERMIT NO. 881 APPROVAL DATE: APPROVED AS AMENDED

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
 CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY: [Signature] TITLE: OPERATOR
 DATE: APR 12 1995
 DISTRICT MANAGER

*See Instructions On Reverse Side

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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. Drawer 612007, Dallas, TX 75261 (214) 753-6900

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
 Section 17-40N-29E
 SW/4 1572' FWL & 1750' FSL

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

5. Lease Designation and Serial No.
 NOG 8707-1142

6. If Indian, Allottee or Tribe Name
 Navajo

7. If Unit or CA, Agreement Designation
 N/A Permit 881

8. Well Name and No.
 Black Rock #7X

9. API Well No.
 02-001-20296

10. Field and Pool, or Exploratory Area
 Black Rock/Paradox

11. County or Parish, State
 Apache Co., AZ

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 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 checked="" type="checkbox"/> Other <u>AMEND APD</u>
	<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.)*

Due to personnel changes please note the following changes in the previously submitted APD:

Surface Use Plan - Item 10 - Field Representative:
 Richard Cottle, Engineer
 Harken Southwest Corporation

H₂S Contingency Plan:

Oil Company Emergency Phone Numbers & Emergency Numbers
 Harken Operations Engineer - Richard Cottle - 24 hr number (505) 326-5545
 Cellular (505) 320-3284

CC: State of Arizona ✓



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

Signed: R. Montgomery Title: Production Administrator Date: 3/21/95

(This space for Federal or State office use)

Approved by _____ Title _____ Date _____

Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes 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.

*See Instruction on Reverse Side



PERMIT TO DRILL

This constitutes the permission and authority from the
OIL AND GAS CONSERVATION COMMISSION,
STATE OF ARIZONA,

To: HARKEN SOUTHWEST CORPORATION
(OPERATOR)

to drill a well to be known as

BLACK ROCK NO. 7X
(WELL NAME)

located 1572 FEET FROM WEST LINE AND 1750 FEET FROM SOUTH LINE (APPX 35 FT FR ORIG)

Section 17 Township 40N Range 29E, APACHE County, Arizona.

The SOUTHWEST QUARTER of said

Section, Township and Range is dedicated to this well.

Said well is to be drilled substantially as outlined in the attached Application and must be drilled in full compliance with all applicable laws, statutes, rules and regulations of the State of Arizona.

Issued this 19th day of JULY, 1994.

OIL AND GAS CONSERVATION COMMISSION

By Steven L. Rainz
EXECUTIVE DIRECTOR

OIL & GAS PROGRAM ADMINISTRATOR

PERMIT 00881

RECEIPT NO. 3067

A.P.I. NO. 02-G01-20296

State of Arizona
Oil & Gas Conservation Commission
Permit to Drill

FORM NO. 27

APPLICATION FOR PERMIT TO DRILL OR RE-ENTER

APPLICATION TO DRILL XX

RE-ENTER OLD WELL

NAME OF COMPANY OR OPERATOR Harken Southwest Corporation		
Address P. O. Drawer 612007	City Dallas	State TX 75261
Drilling Contractor To be determined		
Address		
DESCRIPTION OF WELL AND LEASE		
Federal, State or Indian Lease Number, or if fee lease, name of lessor Navajo Tribal - NOG 8707-1142	Well number Black Rock #7X	Elevation (ground) 6695' GR
Nearest distance from proposed location to property or lease line: 1572 FW Section Line feet	Distance from proposed location to nearest drilling, completed or applied--for well on the same lease: +/- 4450' feet	
Number of acres in lease: 1195	Number of wells on lease, including this well, completed in or drilling to this reservoir: 5	
If lease, purchased with one or more wells drilled, from whom purchased: Name Address		
Well location (give footage from section lines) 1572' FWL & 1750' FSL	Section--township--range or block and survey Sec. 17-40N-29E	Dedication (Comply with Rule 105) 160 acres
Field and reservoir (if wildcat, so state) Black Rock Paradox	County Apache	
Distance in miles, and direction from nearest town or post office 7 miles west-southwest of Teec Nos Pos, Arizona		
Proposed depth: +/- 6176'	Rotary or cable tools Rotary	Approx. date work will start 3rd Qtr of 1994
Bond Status on file Amount \$25,000	Organization Report On file <input checked="" type="checkbox"/> Or attached	Filing Fee of \$25.00 Chuska/Chap check Attached #009572
Remarks: Primary zone is intended to be the Paradox formation Redrill location is N 65° E of original hole. Spacing Order 56 dated 9/89		
CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the <u>Vice President</u> of the <u>Harken Southwest Corporation</u> (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.		
API # 02-001-20296		Signature M.C. V. [unclear]
		Date 7-14-94
Permit Number: 881	STATE OF ARIZONA OIL & GAS CONSERVATION COMMISSION Application to Drill or Re-enter File Two Copies Form No. 3	
Approval Date: 7-18-94		
Approved By: S. L. Rarig		
Notice: Before sending in this form be sure that you have given all information requested. Much unnecessary correspondence will thus be avoided.		

- Operator shall outline the dedicated acreage for *both* oil and gas wells on the plat.
- A registered professional engineer or land surveyor registered in the State of Arizona or approved by the Commission shall show on the plat the location of the well and certify this information in the space provided.
- ALL DISTANCES SHOWN ON THE PLAT MUST BE FROM THE OUTER BOUNDARIES OF THE SECTION.
- Is the Operator the only owner in the dedicated acreage outlined on the plat below? YES NO .
- If the answer to question four is "no," have the interests of all the owners been consolidated by communitization agreement or otherwise? YES NO . If answer is "yes," Type of Consolidation _____
- If the answer to question four is "no," list all the owners and their respective interests below:

Owner	Land Description
	<p style="text-align: center;">CERTIFICATION</p> <p>I hereby certify that the information above is true and complete to the best of my knowledge and belief.</p> <p>Rachelle Montgomery</p> <p>Name Production Administrator</p> <p>Position Harken Southwest Corporation</p> <p>Company 6/22/94</p> <p>Date</p> <p>I hereby certify that the well location shown on the plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.</p> <p>* Original Location</p> <p>Date Surveyed * 8/16/89</p> <p>Registered Professional Engineer and/or Land Surveyor Edgar L. Risenhoover</p> <p>Certificate No. 14207</p>

PROPOSED CASING PROGRAM

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement	Type
13-3/8"	48#	H-40 STC	0	200'	200' to surface	265 sx	Class "G"
4-1/2"	10.5#	J-55 STC	500	+/- 6176'	TD to csg shoe	Stage cement 1. Lead 81 sxs Tail 557 2. Lead 566 Tail 129 sx	Class "G"

Form 3160-3
(July 1992)

SUBMIT IN TRIP DATE*
(Other instructions on reverse side)

FORM APPROVED
OMB NO. 1004-0136
Expires: February 28, 1995

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. NOG 8707-1142
b. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME Navajo Tribal
2. NAME OF OPERATOR Harken Southwest Corporation		7. UNIT AGREEMENT NAME 881
3. ADDRESS AND TELEPHONE NO. P. O. Drawer 612007, Dallas, TX 75261 (817) 695-4900		8. FARM OR LEASE NAME, WELL NO. Black Rock #7X
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)* At surface SW/4 1572' FWL & 1750' FSL At proposed prod. zone Straight Hole		9. AP WELL NO.
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 7 miles west-southwest of Teec Nos Pos, Arizona		10. FIELD AND POOL, OR WILDCAT Black Rock Paradox
10. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig. unit line, if any) 1572'	16. NO. OF ACRES IN LEASE 50,000	11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 17-40N-29E
18. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL, DRILLING COMPLETED, +/- 4450'	19. PROPOSED DEPTH +/- 6176'	12. COUNTY OR PARISH Apache
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 6695' GR		13. STATE AZ
		17. NO. OF ACRES ASSIGNED TO THIS WELL 160
		20. ROTARY OR CABLE TOOLS Rotary
		22. APPROX. DATE WORK WILL START* 3rd Qtr. 1994

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
18"	13-3/8"	48#	200'	265 sx to surface
7-7/8"	4-1/2"	10.5#	6176'	695 sx

This test will be drilled to the Paradox Formation.

The original APD was approved on 12/22/89; the well was spud on 5/22/90 and drilled to ±150' prior to the hole collapsing, the well was P&A'd on 5/24/90.

The redrill of the original application will be N 65° to the East 35' of the original location. This will be redrilled on the original location pad.

The original plat with revised footages from the section line is attached for reference.

Proposed drilling/operations procedures are attached.

Complies with State of Arizona Spacing Order 56; dated 9/89

cc: State of Arizona

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

SIGNED Richard Montgomery TITLE Production Administrator DATE 7/13/94

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY _____ TITLE _____ DATE _____

*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes 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

GENERAL: This form is designed for submitting proposals to perform certain well operations, as indicated, on all types of lands and leases for appropriate action by either a Federal or a State agency, or both, pursuant to applicable Federal and/or State laws 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, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office.

ITEM 1: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable State or Federal regulations concerning subsequent work proposals or reports on the well.

ITEM 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

ITEM 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on this reverse side, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal or State agency offices.

ITEMS 15 AND 18: If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective production zone.

ITEM 22: Consult applicable Federal or State regulations, or appropriate officials, concerning approval of the proposal before operations are started.

NOTICE

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., 25 U.S.C. 396; 43 CFR Part 3160.

PRINCIPAL PURPOSE: The information is to be used to process and evaluate your application for permit to drill or deepen an oil or gas well.

ROUTINE USES: (1) The analysis of the applicant's proposal to discover and extract the Federal or Indian resources encountered. (2) The review of procedures and equipment and the projected impact on the land involved. (3) The evaluation of the effects of proposed operation on surface and subsurface water and other environmental impacts. (4)(5) 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, as well as routine regulatory responsibility.

EFFECT OF NOT PROVIDING INFORMATION: Filing of this application and disclosure of the information is mandatory only if the operator elects to initiate drilling operation on an oil and gas lease.

BURDEN HOURS STATEMENT

Public reporting burden for this form is estimated to average 30 minutes 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, (Alternate) Bureau Clearance Officer, (WO-771), 1849 C Street, N.W., Washington, D.C. 20240, and the Office of Management and Budget, Paperwork Reduction Project (1004-0136), Washington, D.C. 20503.

The Paperwork Reduction Act of 1980 (44 U.S.C. 3501 et seq) requires us to inform you that:

This information is being collected to allow evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases.

This information will be used to analyze and approve applications.

Response to this request is mandatory only if the operator elects to initiate drilling operations on an oil and gas lease.

APPLICATION FOR PERMIT TO DRILL OR RE-ENTER

APPLICATION TO DRILL **XX**

RE-ENTER OLD WELL

NAME OF COMPANY OR OPERATOR
Harken Southwest Corporation copy

Address P. O. Drawer 612007 City Dallas State TX 75261

Drilling Contractor
To be determined

Address

DESCRIPTION OF WELL AND LEASE

Federal, State or Indian Lease Number, or if fee lease, name of lessor Navajo Tribal - NOG 8707-1142	Well number Black Rock #7X	Elevation (ground) 6695' GR
Nearest distance from proposed location to property or lease line: 1572 FW Section Line feet	Distance from proposed location to nearest drilling, completed or applied—for well on the same lease: +/- 4450' feet	
Number of acres in lease: 1195	Number of wells on lease, including this well, completed in or drilling to this reservoir: 5	
If lease, purchased with one or more wells drilled, from whom purchased: Name Address		
Well location (give footage from section lines) 1572' FWL & 1750' FSL	Section—township—range or block and survey Sec. 17-40N-29E	Dedication (Comply with Rule 105) 160 acres
Field and reservoir (if wildcat, so state) Black Rock Paradox	County Apache	
Distance in miles, and direction from nearest town or post office 7 miles west-southwest of Teec Nos Pos, Arizona		
Proposed depth: +/- 6176'	Rotary or cable tools Rotary	Approx. date work will start 3rd Qtr of 1994
Bond Status on file Amount \$25,000	Organization Report On file <input checked="" type="checkbox"/> Or attached	Filing Fee of \$25.00 Chuska/Chap check Attached #009572

Remarks:
Primary zone is intended to be the Paradox formation
Redrill location is N 65° E of original hole.
Spacing Order 56 dated 9/89

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Vice President of the Harken Southwest Corporation (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

API # 02-001-20296

M.C. [Signature]
Signature

7-14-94
Date

Permit Number: **881**
Approval Date: **7-18-94**
Approved By: *Steven L. Rarig*

Notice: Before sending in this form be sure that you have given all information requested. Much unnecessary correspondence will thus be avoided.

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
Application to Drill or Re-enter
File Two Copies

Form No. 3

1. Operator shall outline the dedicated acreage for *both* oil and gas wells on the plat.
2. A registered professional engineer or land surveyor registered in the State of Arizona or approved by the Commission shall show on the plat the location of the well and certify this information in the space provided.
3. ALL DISTANCES SHOWN ON THE PLAT MUST BE FROM THE OUTER BOUNDARIES OF THE SECTION.
4. Is the Operator the only owner in the dedicated acreage outlined on the plat below? YES NO
5. If the answer to question four is "no," have the interests of all the owners been consolidated by communitization agreement or otherwise? YES NO . If answer is "yes," Type of Consolidation _____
6. If the answer to question four is "no," list all the owners and their respective interests below:

Owner	Land Description
	<p style="text-align: center;">CERTIFICATION</p> <p>I hereby certify that the information above is true and complete to the best of my knowledge and belief.</p> <p>Rachelle Montgomery</p> <p>Name Production Administrator</p> <p>Position Harken Southwest Corporation</p> <p>Company 6/22/94</p> <p>Date</p> <p>I hereby certify that the well location shown on the plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.</p> <p>* Original Location</p> <p>Date Surveyed * 8/16/89</p> <p>Registered Professional Engineer and/or Land Surveyor Edgar L. Risenhoover</p> <p>Certificate No. 14207</p>

PROPOSED CASING PROGRAM

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement	Type
13-3/8"	48#	H-40 STC	0	200'	200' to surface	265 sx	Class "G"
4-1/2"	10.5#	J-55 STC	500	+/- 6176'	TD to csg shoe	Stage cement 1. Lead 81 sxs Tail 557 2. Lead 566 Tail 120	Class "G"

HARKEN SOUTHWEST CORPORATION

TEN POINT DRILLING PLAN

**Black Rock Well No. 7X
Section 17, T40N R29E
1750' FSL & 1572' FWL
Apache County, Arizona**

SURFACE FORMATION:

Geological name of surface formation: Morrison

ELEVATION:

Surface elevation is 6695' GR/6708' KB

ESTIMATED FORMATION TOPS:

FORMATION	SUB-SEA ELEVATION	TD
Chinle	+4670'	2038'
DeChelly	+3670' water	3038'
Organ rock	+3298'	3410'
Hermosa	+1960'	4748'
Ismay	+1366'	5342'
Lower Ismay	+1310'	5398'
Desert Creek	+1222'	5486'
Akah	+1084'	5624'
Barker Creek	+932'	5776'
Pinkerton Trail	+810'	5898'
Molas	+582'	6126'
TD	+532'	6176'

Harken Southwest Corporation
Black Rock No. 7X
Ten Point Drilling Plan
Page 2 of 4

4. PROPOSED CASING/CEMENTING PROGRAM

	DEPTH	SIZE	WEIGHT	GRADE	COUPLING
SURFACE	200'	13 3/8"	48.0 ppf	H-40	STC
PROD.	6176'	4 1/2"	10.5 ppf	J-55	STC

SURFACE CEMENTING:

265 sx (313 cf) Class 'G' Cement with 2% CaCl₂ and 1/4 lb/sk Celloflake. Weight = 15.8 ppg, yield = 1.18 ft³/sk. Slurry volume will be calculated at 100% excess over annular volume (sufficient slurry volume to circulate cement to surface).

CASING EQUIPMENT:

Centralizers: Center of shoe jt. 1, and surface jt.

Guide shoe, Baffle Plate, Baker Lok Shoe, Shoe jt. & 1st jt., Top Plug

NOTE: Put asterik on each pipe tally joint for each centralizer installed.

PRODUCTION CEMENTING:

DV tool at 4200'

Stage 1: (TD - 4200') Lead with 81 sx Class 'G' cement, 65:35 Pozmix with 6% gel and 1/4 lb/sk Celloflake. Weight = 12.4 ppg, yield = 1.82 ft³/sk. Tail with 557 sx Class 'G' cement with 2% CaCl₂. Weight = 15.8 ppg, yield = 1.15 ft³/sk. Total of 789 ft³ @ 30% excess. Circulate 4 hours between stages.

Stage 2: (4200-surface): Lead w/566 sx Class 'G' cement, 65:35 Pozmix with 6% gel and 1/4 lb/sk Celloflake. Weight = 12.4 ppg, yield = 1.82 ft³/sk. Tail w/129 sx, Class 'G' cement w/2% CaCl₂. Weight = 15.8 ppg, yield = 1.15 ft³/sk. Total of 1178 ft³ @ 30% excess.

Harken Southwest Corporation
Black Rock No. 7X
Ten Point Drilling Plan
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NOTE: Exact slurry volumes for the production string will be adjusted according to the caliper log which will be run prior to cementing. Special adjustments may be necessary if significant amounts of salt are drilled.

CASING EQUIPMENT:

Centralizers: Middle of shoe jt., every jt. to 5300', every 3rd jt. to DV tool, 3 across DeChelly and 2 at surface casing shoe.

Other: Float Shoe, Float Collar, DV Tool, Baker Lok Shoe, Shoe jt., Float Collar and 1 jt above Float Collar.

NOTE: Put asterik on each pipe tally joint for each centralizer installed.

5. BLOWOUT PREVENTER (SEE ATTACHED SCHEMATICS)

As abnormal pressure is not anticipated, a 2000 psi BOP system would be sufficient for the drilling of this well. A 3000 psi system will be used, as per attached Exhibits "A" and "B". This will be a 10" X 900 series double ram preventer, equipped with a set of pipe and blind rams.

An accumulator system, with a pressure capacity sufficient to operate the rams three complete cycles without rig power, will be required as part of the rig equipment.

6. PROPOSED MUD PROGRAM

Surface to 2650'

Fresh water, gel, lime and native solids. Weight 8.3 - 8.7 ppg. Gel/lime seeps as necessary for hole cleaning.

2650' to TD

Low solids, non-dispersed polymer system. Weight 8.6 - 8.8 ppg. Gel/lime sweeps as hole conditions dictate for hole cleaning. Fluid loss to be maintained at 15 cc or less. Fluid loss to be further reduced to 10 cc or less prior to coring, logging or DST's.

Harken Southwest Corporation
Black Rock No. 7X
Ten Point Drilling Plan
Page 4 of 4

7. AUXILIARY EQUIPMENT

- A. A kelly cock will be installed during drilling operations, with handle available on rig floor.
- B. Full (Opening) Safety Valves (FOSV) will be available, on the rig floor at all times, with necessary subs to fit all of the drilling assemblies.
- C. Mud will be the circulating fluid. No abnormal formation pressures are expected.

8. WELL EVALUATION

Open hole electric logging program will consist of the following:

DLL/GR (No MSFL)
LDT/CNL/GR (Minimum or to 4300 whichever is greater)
Micro Log

No DSTs or Coring are planned. A mud logging unit will be utilized during drilling operations from 4300' to TD.

9. ABNORMAL PRESSURES/GAS

Abnormal pressures are not anticipated. Monitoring of gas and hydrocarbon shows will be by wellsite mud logging unit. H₂S gas could be encountered, and regular checks will be made while drilling the well. See attached H₂S Program for detail.

10. TIMING

The drilling and evaluation of this well is estimated by 14 days. Anticipated drilling will be July/August 94'.

HARKEN SOUTHWEST CORPORATION

SURFACE USE PLAN

**Black Rock Well No. 7X
Section 17, T40N R29E
1750' FSL & 1572' FWL
Apache County, Arizona**

1. EXISTING ROADS

Shown on the attached topographic map are the existing roads in the immediate area. Outlined is the route to be followed to Teec Nos Pos. Existing roads will be maintained, as needed, while operations are in progress.

2. PLANNED ACCESS ROAD

The access road will be as shown on the attached topographic map. The road will be maintained as necessary to prevent excessive damage to the existing terrain. Due to the well's proximity to an existing road, no new road will be constructed to the location pad. Access to the lease is from Highway 160 onto road 5035.

3. LOCATION OF EXISTING WELLS & TANK BATTERIES

Black Rock #8 - Sec. 18-T40N-R29E NE/4
Marathon Navajo #1 - Sec. 18-T40N-R29E SE/4

4. LOCATION OF EXISTING AND PROPOSED FACILITIES

No production facilities are presently in place. Should the well prove to be productive, facilities (tank battery etc.) will be sited on the drilling location pad. Central compressor facilities located in Section 8 may be utilized.

5. SOURCE OF CONSTRUCTION MATERIAL

The need for additional construction materials is not anticipated. In the event that additional materials are required, they will be acquired from private sources.

6. METHODS OF HANDLING WASTE MATERIAL

Trash will be contained on location in an enclosed bin. It will be hauled to an approved disposal site or burned on location if a burning permit is granted. The reserve pit will be lined as required, with an approved 7 mil liner, for containing

Harken Southwest Corporation
Black Rock No. 7X
Surface Use Plan
Page 2 of 3

6. METHODS OF HANDLING WASTE MATERIAL (CONT.)

drilling fluids. The pit will also be fenced. All drilling fluids, cuttings and chemical waste will be stored in the reserve pit. Liquid hydrocarbons will be stored in temporary storage tanks and hauled from location to approved sales facilities. The reserve pit will be emptied, back filled and restored to natural terrain status upon completion of drilling operations.

7. ANCILLARY FACILITIES

Chemical portable toilet facilities will be provided on location during drilling and completion operations. No camps or air strips are planned for this well.

8. WELL SITE LAYOUT

Attached is a surveyors' staking plat, cut and fill diagram and a schematic of the proposed rig layout.

9. PLANS FOR RESTORATION OF THE SURFACE

After drilling operations are completed, the location and surrounding area will be cleared of all remaining debris and materials not required for production. Compacted areas will be plowed or ripped to a depth of 12 to 16 inches before reseeding. After drilling operations are complete, drilling fluid in the reserve pit will be allowed to evaporate. All remaining fluid in the pit will be disposed into an approved disposal site. The reserve pit will remain fenced during the evaporation and disposal process. The pit will then be covered and topsoil will be returned to the disturbed area. The terrain will be returned as near to its original condition as possible. Following operations, rehabilitation seeding will be in accordance with APD/BLM stipulations. There are no residents in the immediate area of the site.

Harken Southwest Corporation
Black Rock No. 7X
Surface Use Plan
Page 3 of 3

10. OPERATORS REPRESENTATIVE

Larry Chambers
Harken Southwest Corporation
501 Airport Dr., Room #158
Farmington, NM 87401
(505) 327-5531

11. CERTIFICATION

I hereby certify that either I, or persons under my direct supervision have inspected the proposed drill site and access route: that I am familiar with the conditions which presently exist: that the statements made in this plan are, to the best of my knowledge, true and correct and that the work planned will be performed by Harken Southwest Corporation, or its sub-contractors, in conformity with the terms and conditions under which it is approved.



Date: 7-13-94

Marshall C. Watson, P.E.
V. P. of Operations

HARKEN SOUTHWEST CORPORATION

DETAILED DRILLING PROGRAM

**Black Rock Well No. 7X
Section 17, T40N R29E
1750' FSL & 1572' FWL
Apache County, Arizona**

DATE:	June 17, 1993
WELL NAME:	Black Rock #7X
LOCATION:	Section 17 - T40N, R29E 1750' FSL & 1752' FWL Apache county, Arizona
ELEVATION:	6695' GR/6708' KB
TOTAL DEPTH:	+/- 6176'
PROJECTED HORIZON:	Primary Target: Paradox Secondary Target: None

DRILLING , CASING AND CEMENTING PROGRAM

1. Move in and rig up spudding rig. Notify BLM of time of spud.
2. Drill mouse hole and rat hole. Mix mud prior to spudding well.
3. Rig up spudder rig. Drill 18" hole to +/- 200'. Use fresh water gel/lime spud mud for drilling surface hole. Well bore inclination is not to exceed 1° at 200'. Deviation surveys will be run at least at casing point.
4. Run 13 3/8", 48 lb/ft, H-40, ST&C casing to 200'. Cement with 265 sx (313 ft³) of Class 'G' cement with 2% CaCl₂ and 1/4 #/sk Celloflake (sufficient slurry volume to circulate cement to surface).
5. RD & release Spudder Rig. MIRU Rotary Rig. Notify BLM of time to drill out. W.O.C. a minimum of 4 hours prior to nipping up for BOP stack and related equipment. See BOP schematics for details.

Harken Southwest Corporation
Black Rock No. 7X
Detailed Drilling Program
Page 2 of 2

6. Ensure that plug has been down at least 8 hours prior to commencing pressure testing procedures. Pressure test BOP to 2,500 psig for 30 minutes. Pressure test manifold and all related equipment to 2,500 psig. Pressure test casing to 1500 psig for 30 min.
7. Drill out surface csg w/ 12 1/4" bit. 12 1/4" hole to 400'. Deviation surveys are to be taken at 400' or on a bit trip, whichever occurs first.
8. Reduce hole size to 7 7/8" and drill to TD of +/- 6176'.
9. Run open hole logs and evaluate. Coring and/or drill stem testing will be as per well site geologist's recommendation.
10. If the well is determined to be productive run 4 1/2" casing to TD, as per casing program in Ten Point Drilling Plan. Set stage cementing collar at +/-3,500 ft. In addition to placing centralizers over potential production zones, they will also be run to cover the aquifer sands of the DeChelly formation, as per BLM stipulations. Cement production casing in two stages as per cementing program in Ten Point Drilling Plan.
11. Nipple down BOPE. Set 4 1/2" casing slips and cut off casing. Install well head. Release drilling rig and move rig off location.
12. If well is non-productive it will be plugged and abandoned as per State and BLM stipulations.

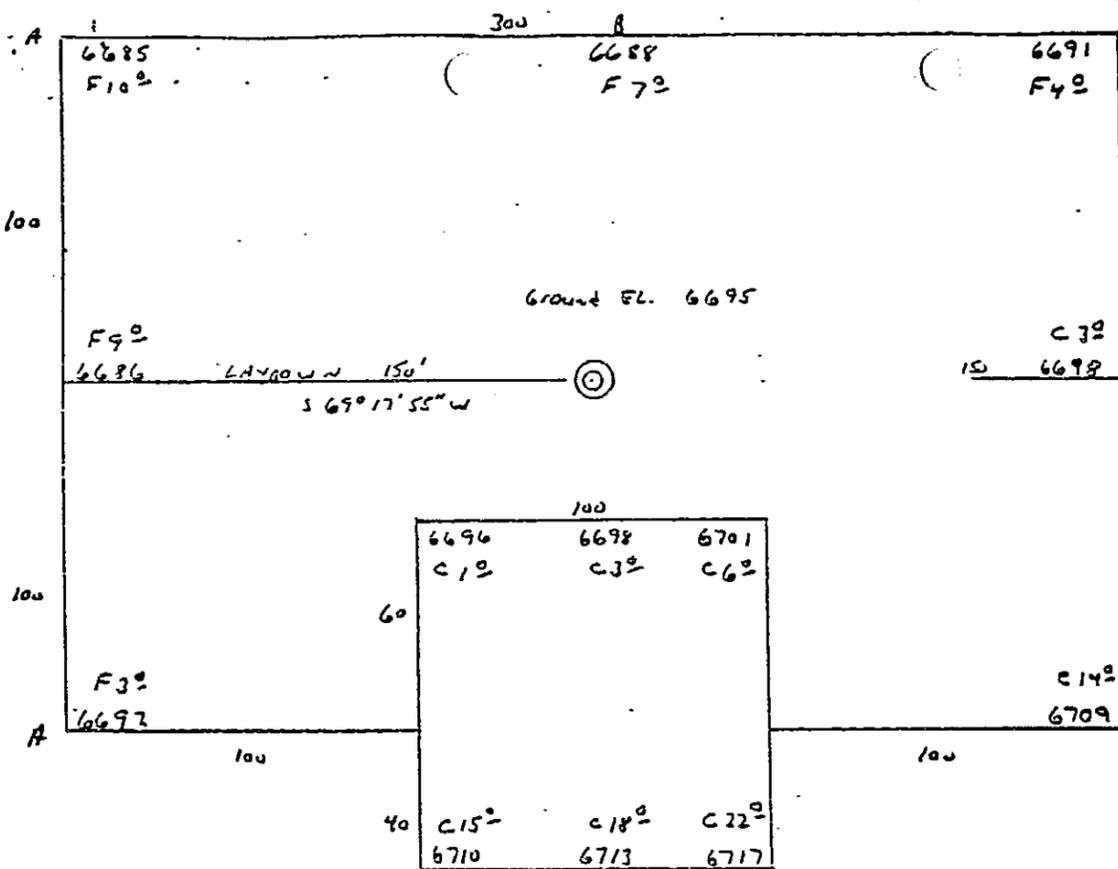
**Black Rock Well No. 7X
Section 17, T40N R29E
1750' FSL & 1572' FWL
Apache County, Arizona**

GENERAL COMPLETION PROCEDURE:

If the well is determined to be productive, move in completion rig. Perforate, acidize, and test each productive porosity zone. Completion work will commence after Sundry Notice approval is received. Detailed procedures will follow.

PLUGGING AND ABANDONMENT:

If the well is determined not to be productive, the well bore will be plugged as per BLM and State requirements.



Chuska Energy Company
OPERATOR

Black Rock 7
WELL NAME & NO.

1735' F/SL 1540' F/ML

FOOTAGES

17 40N 29E

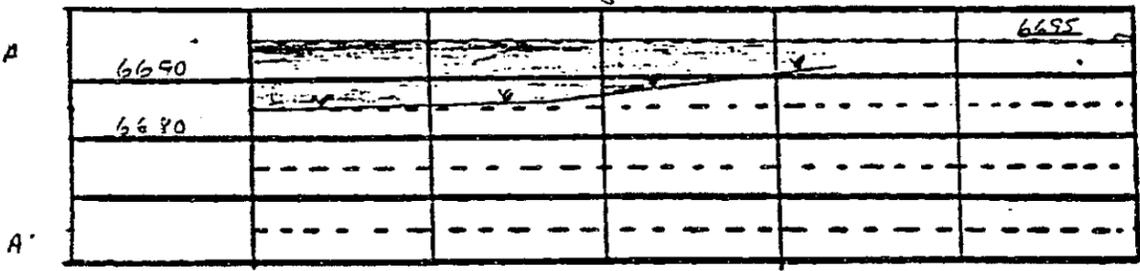
SEC. TWP. RGE.

Apache County, Arizona

COUNTY

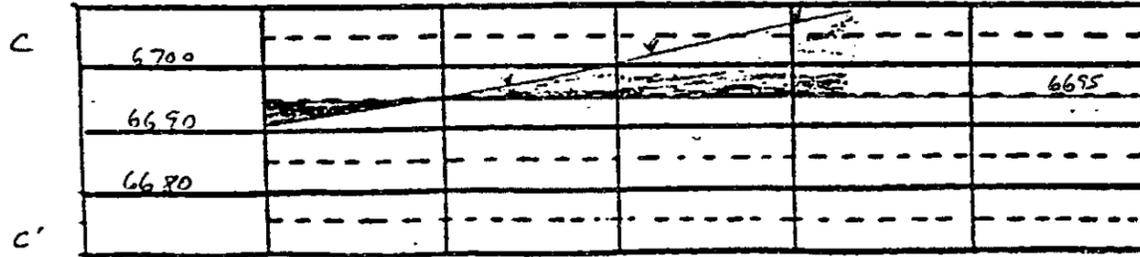
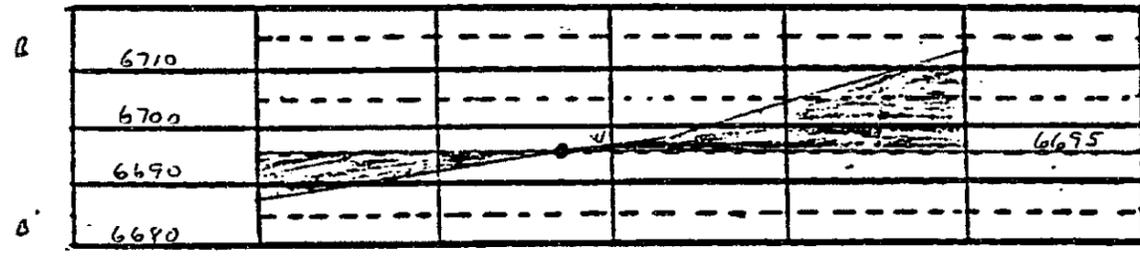
September 25, 1989

DATE

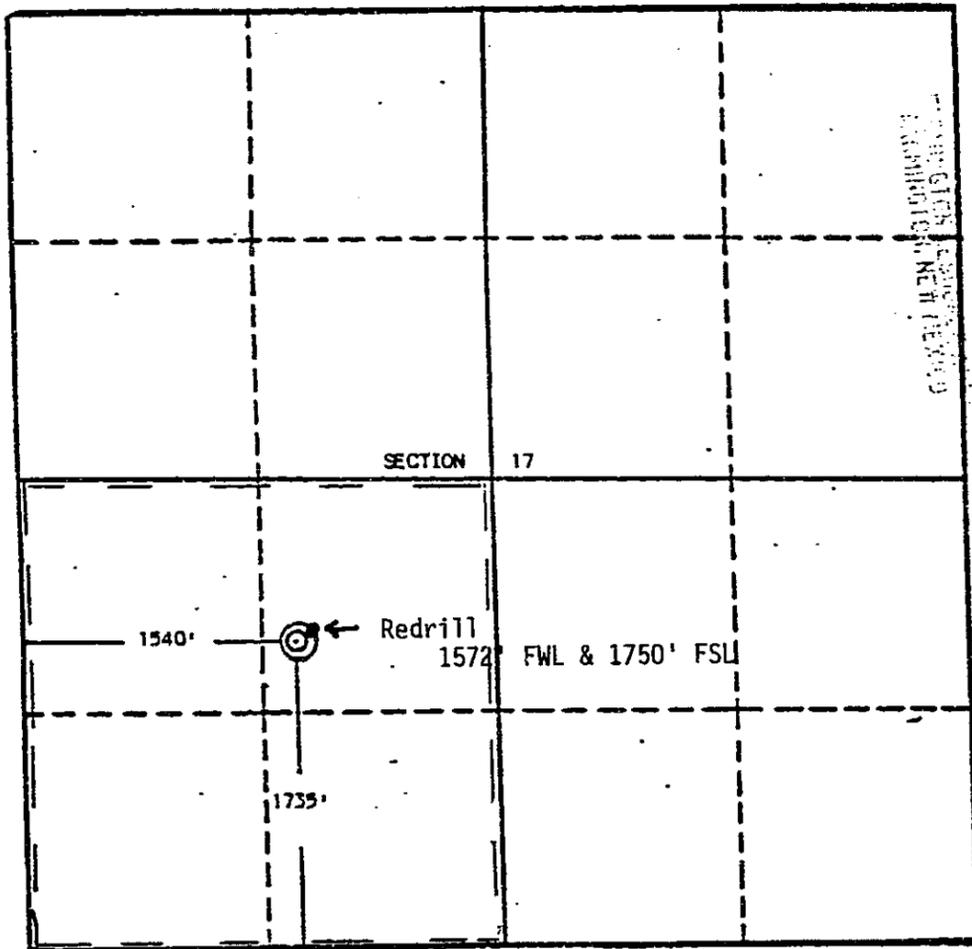


Horz 1" = 60'

Vert 1" = 20'



Company Occidental Energy Company
 Well Name & No. Black Rock 7
 Location 1735' F/SL 1540' F/WL
 Sec. 17, T. 40 N., R. 29 E., G. & S. R. M., County Apache, Arizona
 Ground Elevation 6695



Scale, 1 inch = 1,000 feet

Surveyed August 16, 1989

This is to certify that the above plot was prepared from field notes of actual surveys made by me or under my supervision and that the same are true and correct to the best of my knowledge and belief.

Seal:



Edgar L. Risenhoover
 Edgar L. Risenhoover
 Registered Land Surveyor
 Arizona Reg. No. 14207

RECEIVED
 MAIL ROOM
 AUG 17 2 10 PM '89

EXHIBIT "A"
BLOWOUT PREVENTER

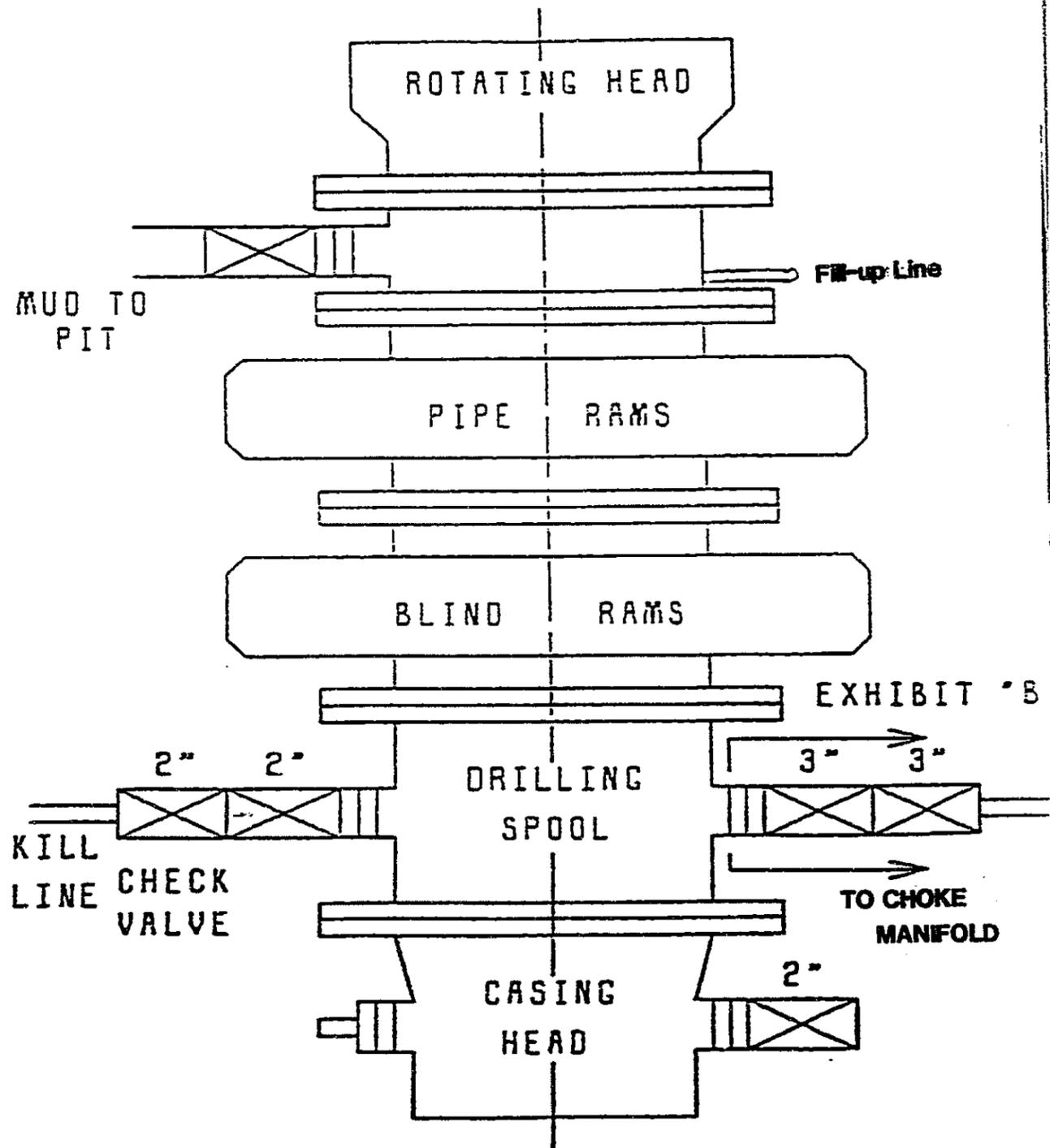
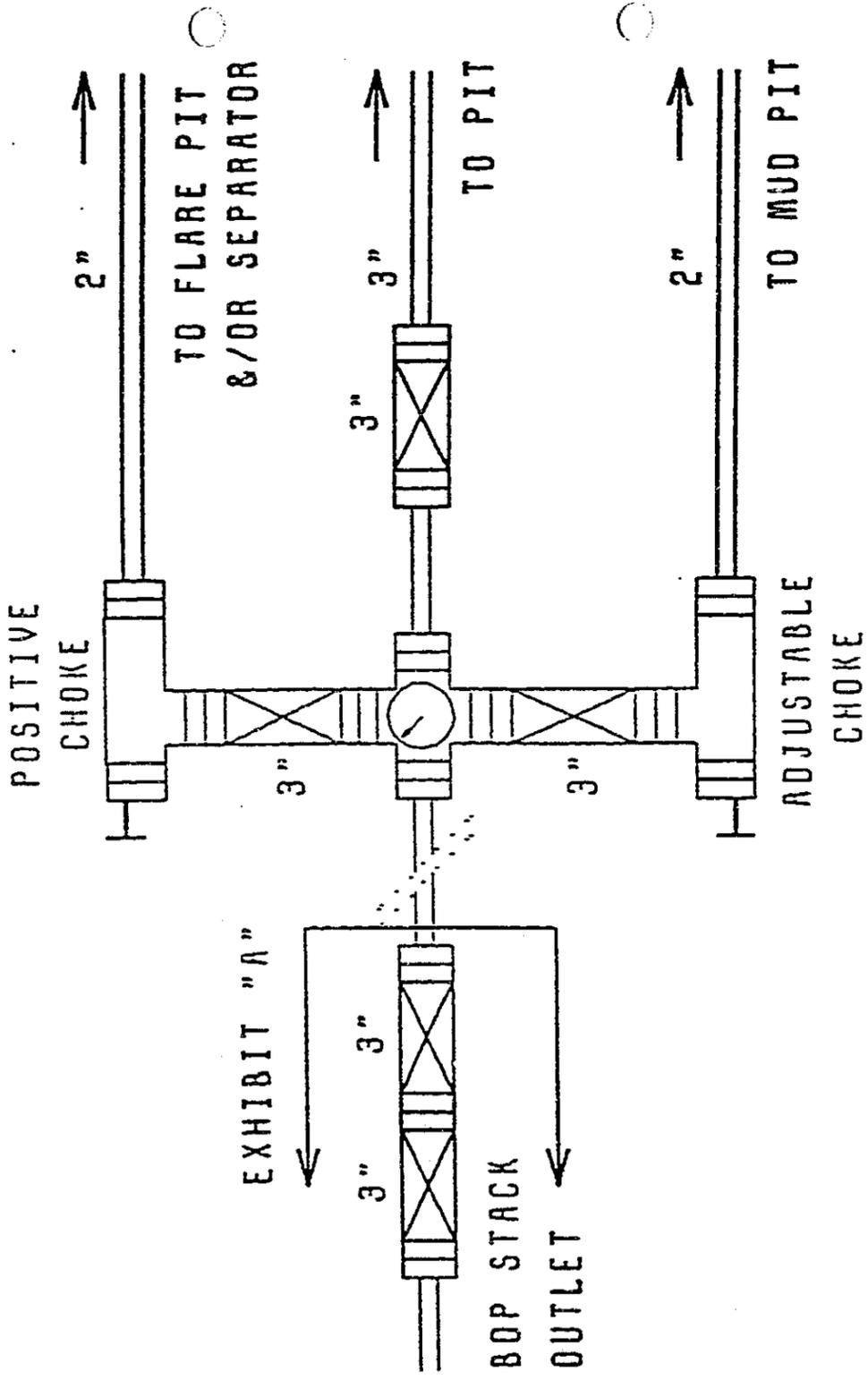
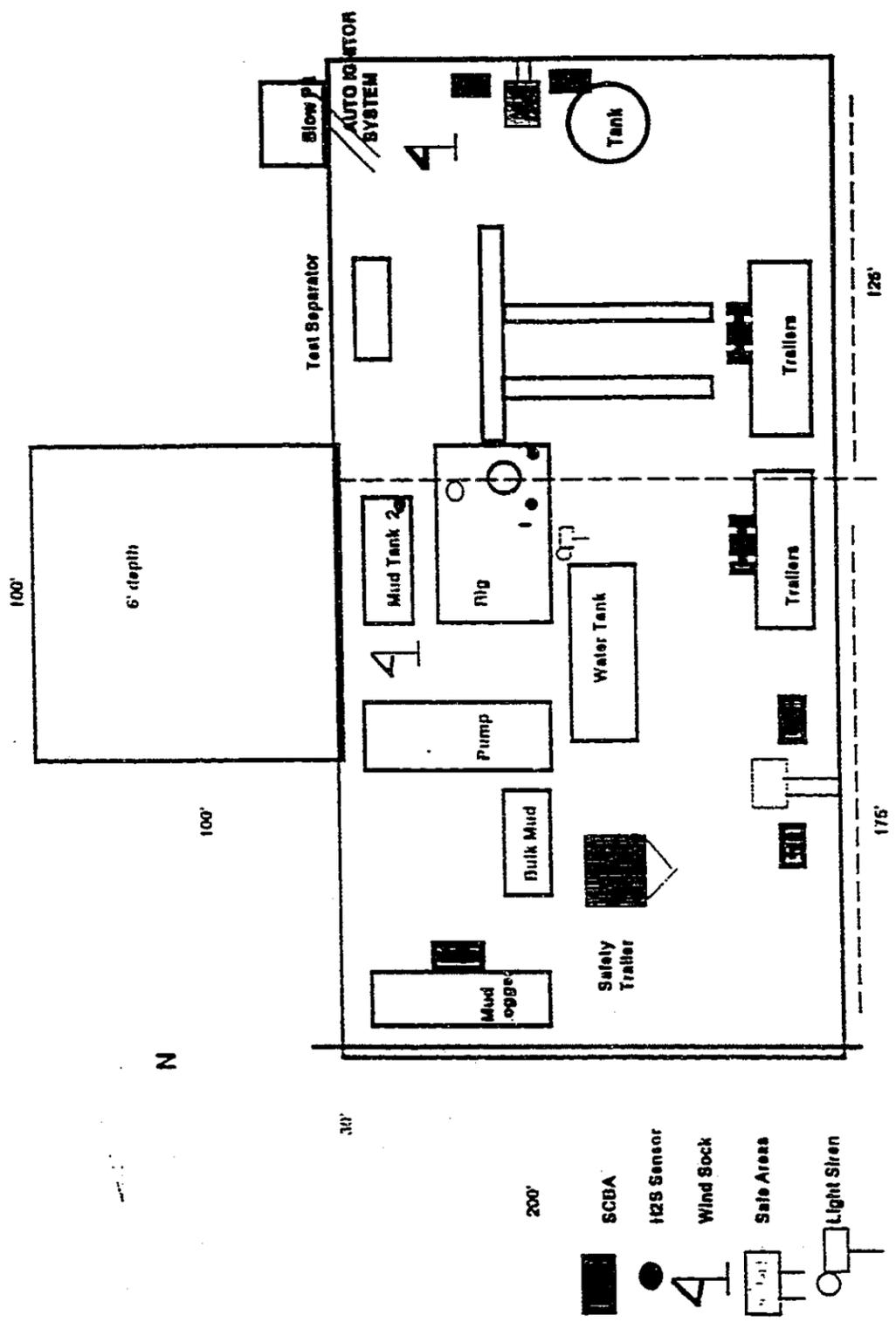


EXHIBIT "B"
CHOKE MANIFOLD



Black Rock Layout



**CONTINGENCY PLAN
INFORMATION WORKSHEET**

OIL COMPANY NAME: Harken Southwest Corporation (formerly Chuska Energy Company)
Local Office:
501 Airport Drive, #158
Farmington, NM 87401
(505) 327-5531

DRILLING OPERATOR NAME: Unassigned

WELL NAME: Black Rock #7X

BLOCK AND SECTION #: Section 17, T40N, R29E

COUNTY AND STATE: Apache County, Arizona

ROAD DIRECTIONS: Farmington, NM to Shiprock, NM (29 miles). Turn on Highway 504 towards Teec Nos Pos (20 miles). Go 7 miles West of Teec and turn South on County Road 5035 and go 2.5 miles on main road to access road.

THE SUSPECTED ZONE WHERE H₂S MAY BE ENCOUNTERED IS: Upper Ismay, at 5322 feet.

THE CONCENTRATION IS EXPECTED TO BE: 80 ppm with a potential open flow capacity of 4 MMCFD.

H₂S RADIUS OF EXPOSURE:

100 PPM: 50'
500 PPM: 44'

THE PLAN SHOULD BE IMPLEMENTED BEFORE DRILLING INTO THE Upper Ismay formation @ 5322 feet.

OIL COMPANY EMERGENCY PHONE NUMBERS:

Harken Farmington Office (505) 327-5531
Harken Operations Engineer - Larry A. Chambers-(505) 327-2941 (Home)
(505) 320-3284 (Cellular)
Harken Montezuma Creek Office (801) 651-3491
Harken V.P. of Operations - Marshall Watson -(817) 695-4900

HARKEN SOUTHWEST CORPORATION

**BLACK ROCK #7X
CONTINGENCY PLAN**

INDEX

- I. PURPOSE
- II. EMERGENCY EVACUATION PLAN/RESPONSIBILITIES
- III. EMERGENCY PHONE NUMBERS
- IV. WELLSITE DIRECTIONS
- V. LOCATION LAYOUT AND EQUIPMENT
- VI. EQUIPMENT LIST
- VII. CHECK LIST

CONTINGENCY PLAN

I. PURPOSE

The purpose of this plan is to safeguard the lives of the public, contract personnel, and company personnel in the event of equipment failures of formations which may contain hydrogen sulfide gas (H₂S). However, as a precautionary measure, evacuation plan has concern should a disaster occur.

II. DESCRIPTION OF HYDROGEN SULFIDE GAS

H₂S is a colorless gas which smells similar to rotten eggs in low concentrations. In large concentrations or over long periods of exposure, the sense of smell may be paralyzed. H₂S is an extremely toxic gas that must be treated with extreme care to prevent injury to people.

H₂S is heavier than air (specific gravity = 1.19), and on still days tends to accumulate in low places. The accumulation could build up and lead to dangerous concentrations. If the H₂S is warmer than air, it will tend to rise until cooled off and could affect workers above the escaping source.

The toxicity of H₂S gas is as follows:

<u>Period of Exposure</u>	<u>Parts H₂S Gas (PPM)</u>
Prolonged exposure, no adverse effects	10 ppm
Over 1 hour, could be hazardous	150 ppm
Possibly fatal in less than one-half hour	300 ppm
Fatal in a few minutes	700 ppm

III. TREATMENT OF HYDROGEN SULFIDE POISONING

A. Remove the patient to fresh air, call physician or ambulance, if possible.

B. If breathing is labored or has ceased, give artificial respiration IMMEDIATELY. Continue until physician available, even if person appears not to be breathing.

Should disaster conditions make it impossible to move to fresh air, keep your mask on and use resuscitator on patient.

NOTE: The H₂S trained operator will rig up equipment on second day after rig up and train all drilling hands, water/mud drivers, and Harken

personnel. After completing H₂S training, the H₂S operator will be on standby until 4500' MD. At 4500', the H₂S operator will be on location twenty-four hours per day until end of completion.

A continuous H₂S monitoring system with one H₂S detection head will be in operation. Windssocks will also be set in a visible area.

C. H₂S Training and Drills:

1. Blowout Prevention Drills:

Pit drill and trip drill training will be held with each crew until proficient in closing in the well. Drills will be held on a regular basis thereafter, with at least one drill per crew each week. Drills are to be on a surprise basis with the drilling foreman or contract tool pusher triggering the alarm. Reaction time will be checked from the time the alarm goes off until the simulated well shut-in is completed. Closing time should be under two minutes. A copy of drilling procedures will be posted on the rig floor.

2. Hydrogen Sulfide Training and Drills:

H₂S safety training will be given to all personnel, including the correct fit and use of the self-contained breathing apparatuses, resuscitator, and artificial respirator. H₂S drills will be held on a surprise basis during the drilling, completion and tripping operations. The drilling foreman or contract tool pusher will trigger the H₂S alarm and crews will proceed to get the masks on and secure, as per posted completion procedures. Similar drills will be held during well completions to which completion foreman or unit operator will trigger alarms.

BEARDS WILL NOT BE PERMITTED

3. Safety Equipment

H₂S safety protection equipment will be available to (or assigned to) each person on location and training will be given in correct usage.

IV. CONTINGENCY PROCEDURES

A. Responsibility

In order to assure the proper execution of this plan, it is essential that one person be responsible for and in complete charge of implementing these procedures. The responsibility will be as follows:

1. Larry Chambers, Engineer, Harken Southwest Corporation, Farmington, New Mexico.
2. Drilling contractor, tool pusher; or, should he become disabled, foreman on tour.

B. Precaution

1. The drilling rig will be located to allow prevailing winds to blow across the rig towards the reserve pit.
2. Briefing stations will be provided with a safety equipment trailer at one or more stations. Personnel will assemble at the most upwind station under alarm conditions, or when so ordered by the drilling foreman or the safety representative. A wind sock or streamer will be anchored to the trailer.

A second streamer will be anchored at the end of the catwalk on a pole about 30 feet high so as to be in easy view of the rig floor and visible at night.

A separate supply of air cylinders must be located at the opposite side of location than the safety unit. At least one briefing area with wind sock will be upwind at all times.

3. Warning signs will be posted on the access road to the location. "NO SMOKING" signs will also be posted.
4. One automatic H₂S monitor will be provided by the safety company and the detector will be at the shale shaker. Another automatic detector will be on the rig floor, monitoring either on the rig floor or in the logging unit. Should the alarm be shut off to silence the siren, the blinking light must continue to warn of H₂S presence. The safety representative will continuously monitor the detector and will reactivate the alarm if H₂S concentrations increase to a dangerous level.

Harken Southwest Corporation
Contingency Plan
Page 4 of 5

5. Do not permit sleeping in cars on location. Maintain a parking area remote from the location, preferably on the predominate upwind side of the site.
6. Explosion-proof electric fans (bug blowers) will be positioned to insure adequate circulation at all critical locations.
7. A gas trap, choke manifold and degasser will be installed.
8. A kill line, securely anchored and of ample strength, will be laid to the wellhead from a safe location. This line is to be used only in an emergency.
9. All swabbing and drill stem testing fluids containing H₂S shall be run through a separator to permit flaring of gas. The flare shall have a continuous flame.
10. Provision for blocking or monitoring access to the location during critical operations shall be provided.

C. Emergency Procedures and Definitions of Warning Signs

Condition GREEN - Normal Operations

Condition YELLOW - Moderate Danger, more than 10 ppm on location, authorized personnel only; uncontrolled well, poison gas present above threshold levels.

Safety Action:

1. Check safety equipment and keep it with you.
2. Do not panic.
3. The decision to ignite the well will be made only as a last resort and when it is clear that:
 - a. human life is endangered, and
 - b. there is no hope of controlling the well under prevailing conditions. Every effort should be made to notify Harken Southwest emergency phone numbers.

Harken Southwest Corporation
Contingency Plan
Page 5 of 5

4. Order evacuation of local people within the danger zone from local authorities (State Police and Sheriff's Department) to evacuate people and to control traffic.
5. Notify Harken Southwest Corporation of well conditions.

D. Evacuation Procedures

1. The person in charge will activate the siren and notify the appropriate agencies and law officers that an emergency exists and help is needed.
2. The State Police will contact residents in the danger zone. They will start with those in a downwind direction.

EMERGENCY EVACUATION PLAN

Note:

This attachment shall be posted on the bulletin board contained in the doghouse, with extra copies contained in the contract tool pusher's trailer, company trailer and in the safety trailer.

Designation of Responsibility

In order to assure the proper execution of this plan, it is essential that one person is responsible for and in complete charge of implementing these procedures. Therefore, responsibility shall be designated in the following order, depending on the person on location.

1. The company representative (foreman or consultant)
2. Contract tool pusher

Definition of Warning Signs

Condition GREEN: Normal Operations - with caution - potential danger

1. Be alert for a "change in condition" warning sign.
2. Before a zone has been perforated.
3. After a zone has been plugged and pressure tested.

Condition RED: Danger

1. Any time a well has been perforated in a known H₂S zone.
2. Circulation known H₂S zone.
3. Circulation gas out of known H₂S zone.
4. When swabbing known H₂S zone.
5. When testing known H₂S zone.
6. When performing DST in know H₂S zone.
7. Uncontrollable well.

After any accidental release of potentially hazardous volume of H₂S, this program shall be initiated immediately.

1. Set off alarm. Evacuate all persons off location to "safe" briefing area, upwind. Check that all persons are present. If not, proceed with evacuation from hazardous area in the following manner:

Harken Southwest Corporation
Evacuation Plan
Page 2 of 2

- a. Two persons, if available, re-enter hazardous area with air packs and each attached to an assistant via safety line. The assistant shall also be wearing respiratory equipment, but shall be outside the hazardous area.
 - b. Locate and evacuate all other persons in hazardous area to "safe" briefing area.
 - c. Proceed with emergency first aid to all injured. Call hospital emergency ward. Alert them of the problems and have them send rescue vehicle immediately.
2. Locate, define problem, and proceed with emergency shut-in procedures per company blowout drill procedure.
 3. Stay in "safe" briefing area unless instructed to do otherwise.
 4. Only enter hazardous area with adequate air supply and attended by someone with a safety rope.

**THERE ARE NO RESIDENCES
WITHIN A 3000' RADIUS OF EXPOSURE**

EMERGENCY TELEPHONE NUMBERS

Apache County Sherrif's Department:

(602) 337-4321
(800) 352-1857

Arizona Department of Public Safety: (602) 773-3600

Window Rock:(Dispatch for Navajo Nation)

(602) 871-6111 or 871-6112

Harken Southwest Corporation:

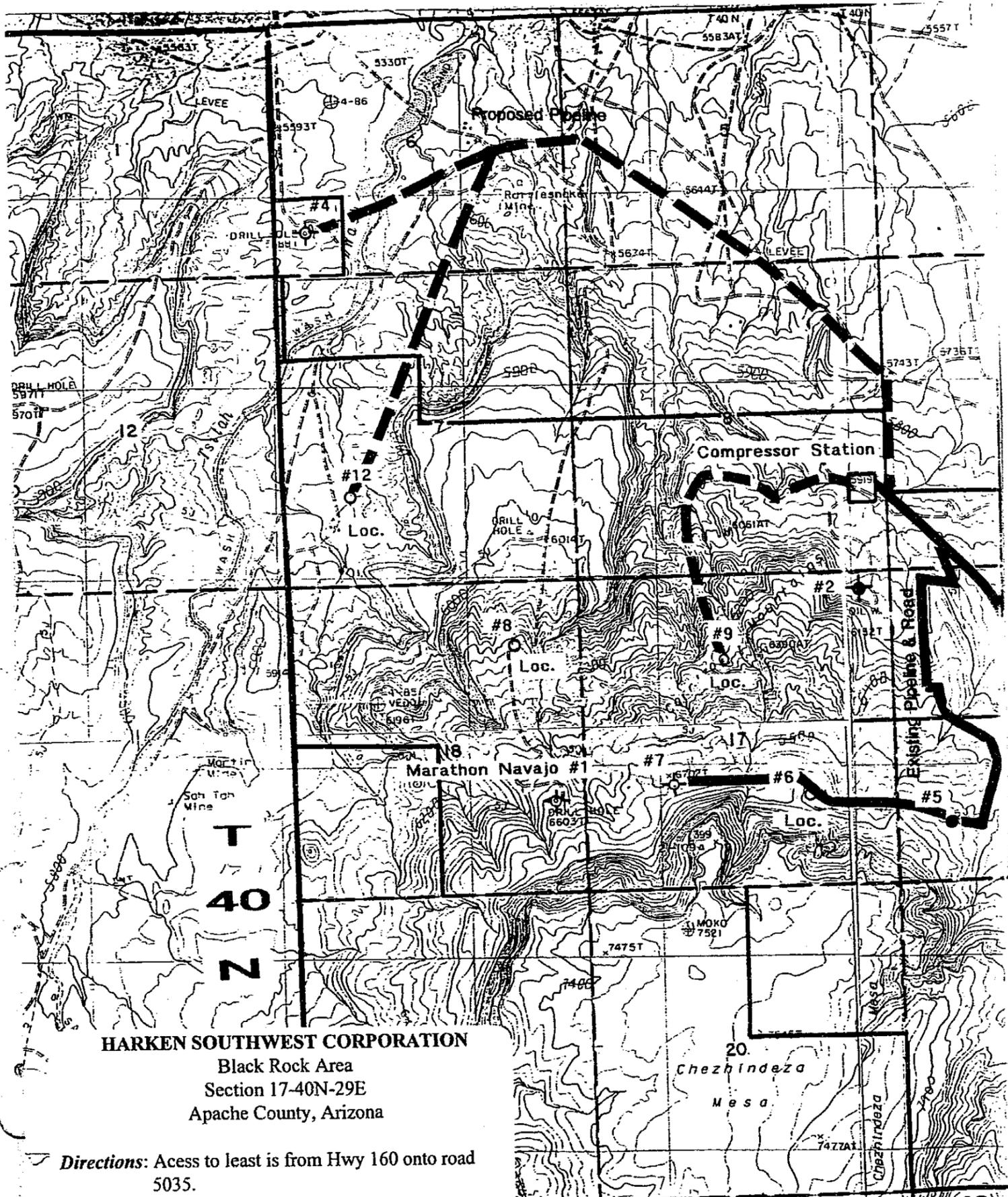
Farmington Office (505) 327-5531

Farmington Operations Engineer:
Larry Chambers (Cellular) (505) 320-3284
(Home) (505) 327-2941

Montezuma Creek Office (801) 651-3491

V. P. of Operations - Grand Prairie, TX:
Marshall Watson (817) 695-4900

NOTE: An Employee of Harken Southwest Corporation will notify the Bureau of Land Management - Farmington, New Mexico and the State of Arizona - Oil & Gas Conservation Commission.

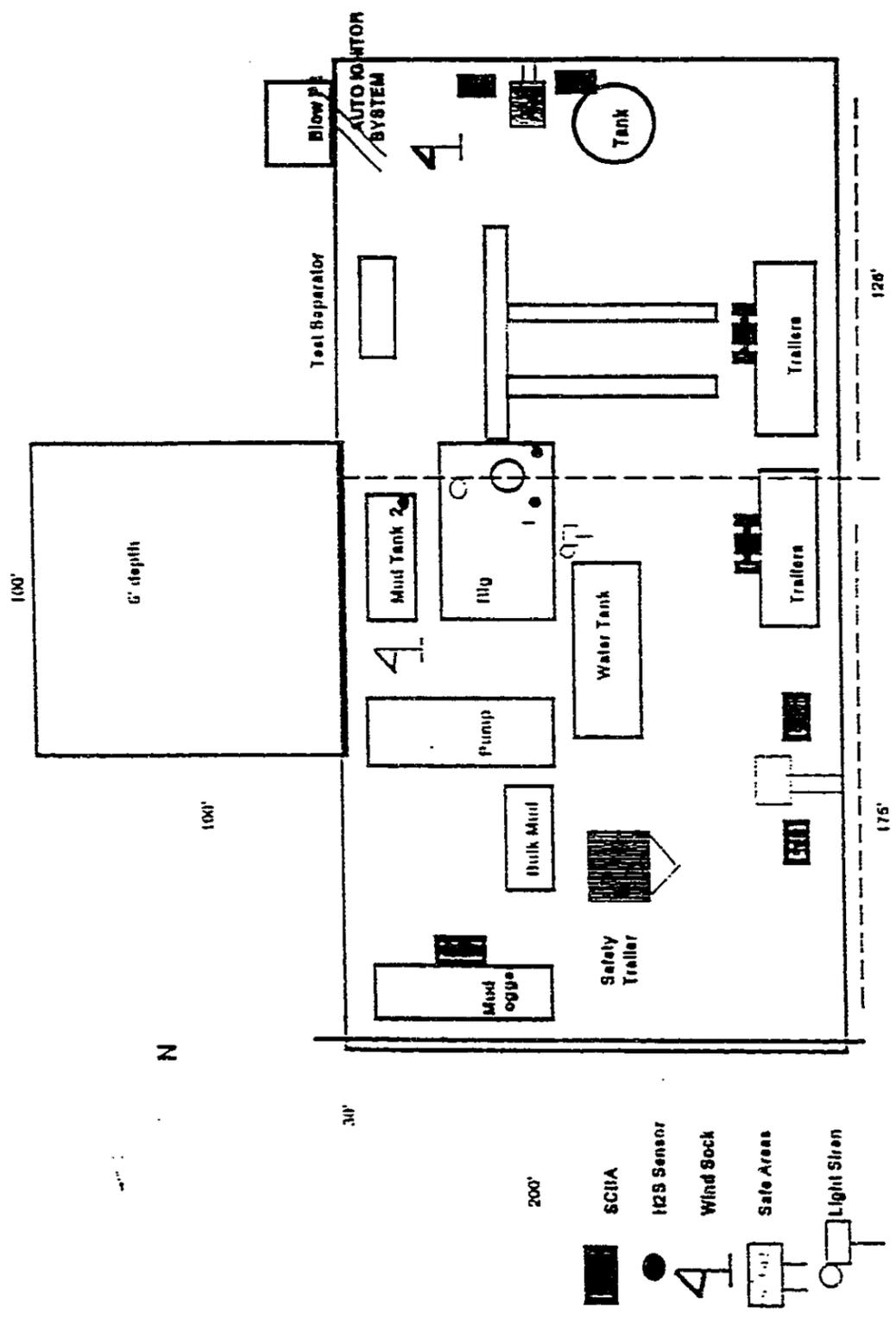


HARKEN SOUTHWEST CORPORATION
 Black Rock Area
 Section 17-40N-29E
 Apache County, Arizona

Directions: Access to least is from Hwy 160 onto road 5035.

Parts of Quad: Pastora Peak, Cow Butte, Toh Atin Mesa - East & Toh Chin Lini Mesa, Arizona

Black Rock Layout



- 200' [Symbol]
- SCIA [Symbol]
- 125 Sensor [Symbol]
- Wind Sock [Symbol]
- Safe Areas [Symbol]
- Light Siren [Symbol]

N

30'

175'

120'

EQUIPMENT LIST

1. (1) Safety Trailer with (10) 300 cu. ft. breathing bottles
2. Three (3) 5 man manifold systems
3. One (1) filler hose for hip pak and escape units
4. One (1) three channel monitor with alarm systems
5. Six (6) Scott SKA-PAK 30-minute units
6. Six (6) Scott SKA-PAK 5-minute workline units
7. Two (2) windsocks complete with frame and poles
8. Five (5) escape units
9. Two (2) briefing area signs
10. One (1) well condition sign
11. 1000 ft. breathing air hose
12. One (1) 24 unit first aid kit
13. One (1) 20 lb. fire extinguisher

CHECKLIST FOR DRILLING OR WORKOVER IN H₂S ENVIRONMENT

Pending Approval of Proposed NTL-10

Items 1-4 to be shown on site layout diagram. (Part 9 of NTL-6, 13 Point checklist.)

1. Two safety briefing areas at least 200 feet from wellhead and arranged so that at least one area will always be upwind of the well at all times.
2. Direction of prevailing winds.
3. Windsock locations. (minimum of two. NTL-10, 11-A-4).
4. A second emergency escape route from the location. (Flagged trail minimum.)
5. Number, types, and storage locations of H₂S respirators for personnel, and number of personnel to be expected at any on time.
6. H₂S detector locations. (Should at least include cellar or bell nipple and mud tanks at shale shaker.) Type and location of audible, visual alarm to be used (NTL-10, 11-A-3).
7. H₂S evacuation and emergency training procedures and frequency. (NTL-10, aa-A-1-b).
8. Area residents within a two mile radius and agencies to be notified in an emergency (contingency plan). (NTL-10-1D).
9. Types and quantities of mud additives and scavengers to be available to location from H₂S operations.
10. Design features and operational procedures to be used to protect the drill string, casing strings, wellhead, BOP's, choke lines and manifold, and other well killing equipment H₂S environment. (A certification by the operator on the APD that all equipment meets standards for H₂S service is acceptable to compliance).
11. Appropriate warning signs and flags on all access roads to location (NTL-10, 11-(4).)
12. Provision for blocking or monitoring access to location during critical operations.
13. Ventilation fan under rig floor.
14. In event of uncontrolled blowout, a local official has the authority to ignite flow.
15. Swabbing or drill stem testing fluids containing H₂S should be through a separator to permit flaring of gas. Flare should have continuous pilot light to insure ignition of all such gas.

GENERAL KILL WEIGHT MUD CALCULATIONS

(ICP) Initial Circulating Pressure
(FCP) Final Circulating Pressure
(SIDPP) Shut in Drill Pipe Pressure
(SICP) Shut in Casing Pressure
(TVD) True Vertical Depth

ICP = SIDPP = Slow Rate Pump Pressure
(Answer in PSI)

FCP = Slow Rate Pump Pressure x $\frac{\text{Kill Weight Mud}}{\text{Original Mud Weight}}$

Kill Mud Weight = Original Mud Weight + $\frac{19.23 (\text{SIDPP})}{\text{Depth}}$
(Answer in PPG)

Hydrostatic Pressure = TVD x 0.052 x MW = PSI

Equivalen Mud Weight = MW in Hole + $\frac{\text{SICP} \times 19.23}{\text{Depth of Shoe}}$

Formation Pressure = Hydrostatic Pressure + SIDPP

Pump Output (bbl/min) = bbl/stk x stk/min

CHUSKA ENERGY CO.
CHAP COST TRANSACTION ACCOUNT

P.O. BOX 619
DALLAS, TX 75202

NO. 009572

PAYMENT ADVICE

INVOICE		COMMENT	GROSS	DEDUCTIONS	AMOUNT PAID
NUMBER	DATE				
6/22/94 ck req	6/23/94	Permitting fee for the Black Rock #7X Apache Co., Arizona. <i>Rec'd 7-18-94 # 3067</i>			\$25.00

Operator CHUSKA ENERGY COMPANY (Harken Southwest Corp.)

Bond Company VALLEY NATIONAL BANK - ARIZONA Amount \$25,000

Bond No. C.D. #2578904 Date Approved 12/01/89

Permits covered by this bond:

- 559
- 581
- 610 (P & A 11-21-95)
- 615 (P & A 5/10/91)
- 868
- 869 expired
- 870 (J & A 5/90)
- 871
- 872 expired
- 873 (P & A 8/4/93)
- 874 expired
- 875
- 881
- 882
-
-
-
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-
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-
-

Operator CHUSKA ENERGY COMPANY (Harker Southwest Corp.)

Bond Company VALLEY NATIONAL BANK - ARIZONA Amount \$25,000

Bond No. C.D. #2578904 Date Approved 12/01/89

Permits covered by this bond:

- 559
- 581
- 610 (P & A 11-21-95)
- 615 (P & A 5/10/91)
- 868
- 869 expired
- 870 (J & A 5/90)
- 871
- 872 expired
- 873 (P & A 8/4/93)
- 874 expired
- 875
- 881
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Fife Symington
Governor

State of Arizona
Arizona Geological Survey

416 W. Congress, Suite 100
Tucson, Arizona 85701
(520) 770-3500



Larry D. Fellows
Director and State Geologist

April 2, 1996

Mr. Kevon Smith
Petroleum Information
P.O. Box 1537
Aztec, New Mexico 87410

file 891

Dear Kevon:

The abandonment notice for Harken Southwest's Black Rock 7X and the reclamation notice for the old United Gas Search location are attached for your information. You may recall that United Gas Search built its location in 1991 but never drilled the well. Premco Western (Rodney Ratheal) ended up with the United Gas Search lease but drilled at its current location instead of the old United Gas Search location.

Sincerely,

Steven L. Rauzi
Oil and Gas Program Administrator

Enclosures

WILDCAT: WDD =
FULL NEW POOL
ACCESSFUL

RT

PETROLEUM INFORMATION ROCKY MOUNTAIN REGION REPORT
SECTION VI - 03/27/96

DRILLING PROGRESS

INITIAL CLASS: WF=NEW FIELD WILDCAT; WD=DEEPER POOL WILDCAT; WS=SHALLOWER POOL WILDCAT; WP=NEW POOL WILDCAT; WO=WILDCAT OUTPOST; D=DEVELOPMENT.

■ DENOTES NEW INFORMATION ADDED THIS WEEK. LDIR - LAST DATE INFORMATION REPORTED OR CONFIRMED.
● DENOTES A FINAL STATUS HAS BEEN ADDED TO THE WELL.

ARIZONA

APACHE COUNTY

RIDGEWAY ARIZONA OIL 2-11N-29E UNNAMED; PERMIT #893; 2485 FORT APACHE, (FR 10/20/95FM) OPER WO
2-1 RIDGEWAY STATE SE NW ADD: 1080 700 4TH AVE SW, CALGARY ALB T2P 3J4, PHONE (800) 347-0294;
API 02-001-20305 1660 FNL 1660 FWL EL: 6710 GR; LOCATION DATA: 1/2 E FORT APACHE CO2 DISC 3-11N-29E
UNNAMED 8 1/2 MI SE ST JOHNS, AZ;

LOC;

RIDGEWAY ARIZONA OIL 10-11N-29E UNNAMED; PERMIT #891; 2485 FORT APACHE, (FR 10/20/95FM) OPER WO
10-1 RIDGEWAY STATE SW NE ADD: 1080 700 4TH AVE SW, CALGARY ALB T2P 3J4, PHONE (800) 347-0294;
API 02-001-20303 1660 FNL 1660 FEL EL: 6654 GR; LOCATION DATA: 1/3 MI S FORT APACHE CO2 DISC SE
3-11N-29E UNNAMED 9 1/2 MI SE ST JOHNS, AZ;

CONTR: AZTEC WELL SRVCG: LOC;

RIDGEWAY ARIZONA OIL 11-11N-29E UNNAMED; PERMIT #892; 2680 FORT APACHE, (FR 10/20/95FM) OPER WO
11-1 RIDGEWAY STATE SE NW ADD: 1080 700 4TH AVE SW, CALGARY ALB T2P 3J4, PHONE (800) 347-0294;
API 02-001-20304 1775 FNL 1660 FWL EL: 6824 GR; LOCATION DATA: 1/3 MI SE FORT APACHE CO2 DISC
3-11N-29E UNNAMED 10 MI SE ST JOHNS, AZ;

LOC;

RIDGEWAY ARIZONA OIL 15-12N-29E WILDCAT; PERMIT #883; 220 SAN ANDRES, (FR 12/08/94FM) OPER ADD: WF
1A RIDGEWAY PLATEAU NE SW 1080-700 4TH AVE SW, CALGARY, AS, T2P3J-0004 PHONE (800) 347-0294;
CATTLE CO 2983 FNL 3583 FEL EL: 6377 GR; LOCATION DATA: 51 MI S NAVAJO SPRINGS
API 02-001-20298 FLD(COCONINO) 59 FT FROM POSS GAS DISC 7 MI SE ST JOHNS, AZ;

CONTR: SALAZAR DRLG; SPUD: 11/26/94, DRLG COMMENTS: DRILD WITH CO2 FROM DISCOVERY WELL. MAY USE THIS WELL AS A DISPOSAL WELL IN THE FUTURE. 220 TD, (TD REACHED: 11/ 27/94); ... 220 TD, SI(WOO) (LDIR 03/12/96)

RIDGEWAY ARIZONA OIL 22-12N-29E UNNAMED; PERMIT #888; 2300 FORT APACHE, (FR 08/28/95FM) OPER WO
22-1X RIDGEWAY STATE SE NW ADD: 1080-700 4TH AVE SW, CALGARY, AB, 00T2R-03J4 PHONE (505)
API 02-001-20301 1363 FNL 1713 FWL 327-1378; EL: 6393 GR; LOCATION DATA: 1 MI S CO2
DISCOVERY-UNNAMED 15-12N-29E FLD 8 MI SE ST JOHNS, AZ; TO REPLACE
JUNKED HOLE #1; WELL ID CHANGES: WELL NAME CHGD FROM STATE.
FTG CHGD FROM 1383 FNL 1723 FWL

CONTR: SMITH WAYNE DRLG. RIG #1;LOC;

RIDGEWAY ARIZONA OIL 35-12N-29E UNNAMED; PERMIT #890; 2500 FORT APACHE, (FR 10/20/95FM) OPER WO
35-1 RIDGEWAY STATE NE SW ADD: 1080 700 4TH AVE SW, CALGARY ALB T2P 3J4, PHONE (800) 347-0294;
API 02-001-20302 1660 FSL 1660 FWL EL: 6689 GR; LOCATION DATA: 3/4 MI NE FORT APACHE CO2 DISC SE
3-11N-29E UNNAMED 10 1/2 MI SE ST JOHNS, AZ;

CONTR: AZTEC WELL SRVCG: LOC;

HARKEN SOUTHWEST 17-40N-29E BLACK ROCK; PERMIT #881; 6469 PARADOX, (FR 07/18/94DN) OPER D
7X BLACK ROCK NE SW ADD: DRAWER 612007, DALLAS, TX, 75261 PHONE (817) 695-4900; EL: 6695
API 02-001-20296 1750 FSL 1572 FWL GR; LOCATION DATA: 7 MI SW TEEC NOS POS, AZ;

LOC;

MOHAVE COUNTY

PREMCO WESTERN 10-41N-11W WILDCAT; 8500 CAMBRIAN, (FR 09/11/95FM) OPER ADD: WF
1-10 MOHAVE COUNTY NE SE GARLAND, TX, 74049-8568 PHONE (214) 341-7010; EL: 3090 GR; LOCATION
API 02-015-20029 2353 FSL 510 FEL DATA: 24 MI S-SW VIRGIN FLD(UTAH/NACHOE) 9 MI SE ST GEORGE, UT;
IC 20157000195 PLAN SPUD NOV-1-1995;

■ SPUD: 11/30/95 CSG: 18 @ 80; DRLG COMMENTS: LAYNE WESTERN CO DRILD TO SURF CSG POINT STARTING 1/29/96 FROM 80 FT. GARY DRLG TO DRILL 1100-2800. ... @ 1100, COH TO RUN 8 5/8 CSG (LDIR 03/26/96)

5-16-95 Rachelle Montgomery, Harken Energy calls

- T.D. BR 20 last night @ 5432'
- Ran logs
- Laying down drill pipe
- will set production casing today
- move off tomorrow.

- Reclaim location @ BR 7X
- May consider directional hole later on

file 881

file 881

- 4-26-95 Rich Cottle, Harken Energy calls:
- prep BR 7X + 20 locations
 - spud rig moving on 20 a.m. 4-27-95
 - will set ~200' conductor pipe.
- 5-1-95 Rich Cottle:
- set conductor on BR 20 a.m. 5-2-95
- 5-5-95 Rachelle Montgomery, Harken Energy:
- Spud BR 20 today or tomorrow
 - Spud rig on 7X
- 5-10-95 Rich Cottle calls:
- set 200' 13³/₈" csg on BR 20
 - Big rig moved in, drilling ahead below 3200'
 - Gene Javine is consultant (mobil # 505-320-2425)
 - BR 7X may go nowhere, up in air.
 - Spud rig couldn't maintain hole below 40'
 - caving, big boulders, same prob as with BR 7

MEMORANDUM TO FILE

file 881

DATE: April 19, 1995

FROM: Steven L. Rauzi *slr*
Oil and Gas Program Administrator

SUBJECT: Black Rock wells 7X and 20, Permits 881 and 882
Black Rock Field, Apache County

Rachelle Montgomery, Harken Energy Company, called this date to advise that the Navajo Tribe and BIA have approved the drilling of the referenced wells. Harken has the BLM permits in hand, and Lansing Construction to start location work as soon as possible.



HARKEN SOUTHWEST CORPORATION

(formerly Chuska Energy Company)

August 30, 1994

Mr. Steve L. Rauzi
Arizona Geological Survey
Oil & Gas Division
845 North Park Avenue #100
Tucson, AZ 85719



RE: Black Rock #7 - Permit #881 ✓
Black Rock #20 - Permit #882

Dear Mr. Rauzi:

Pursuant to rule R12-7-104(C), a permit to drill is valid for 180 days after the date of issuance. At the time the APD's were submitted on the two referenced wells, Harken believed the federal approval process could be accomplished within this time frame. However, the Navajo Nation has passed a new Resolution which requires additional permitting procedures. Due to the uncharted nature of this process, there is no predicting what the time frame will be. Therefore, Harken Southwest respectfully request the above referenced permits be placed on hold and the time clock stopped until we are able to determine the amount of time the Navajo Nation will require to process Applications for Permits to Drill.

Should you have any questions or need additional information, please feel free to contact me.

Very truly yours,

HARKEN SOUTHWEST CORPORATION

Ms. Rachelle Montgomery
Production Administrator



Fife Symington
Governor

State of Arizona
Arizona Geological Survey

845 North Park Avenue, #100
Tucson, Arizona 85719
(602) 882-4795



Larry D. Fellows
Director and State Geologist

August 26, 1994

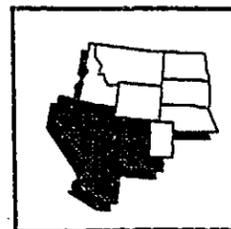
Memo to Permit files 881 and 882
From: Steven L. Rauzi SLR

I called Rachelle Montgomery, Harken Energy, today to ask about the status of their federal permits for Black Rock wells No. 7X and No. 20. She indicated that the BIA and Navajo Tribe have initiated a *Signature Authorization Survey (SAS)* which requires that all new wells drilled on Navajo lands must receive signatures from 13 separate Tribal Councils. I advised her that state permits to drill are valid for 180 days from the date of issue and that in light of this new requirement on the part of the Navajo Tribe that the Commission would not start counting the 180 days until Harken had the federal permits in hand. She will advise me when they get the federal permits.



ROCKY MOUNTAIN

REGION REPORT



FOUR CORNERS EDITION

Vol. 67, No. 139
7-20-94

Rangeland Receives Permit for Kaiparowits Basin Wildcat

*Environmental Assessment Under Way for Remote Paradox Basin Horizontal Test
New Drilling Slated for Kiva Field*

MIDLAND INDEPENDENT Rangeland Exploration Co has been granted a federal drilling permit for its remote exploratory test in the Kaiparowits Basin about 60 miles south-southwest of Escalante, southern Utah.

The 1 Judd Hollow, sw nw 19-43s-2e, Kane County, is a proposed deepening of a 7341-ft dry hole (the 1 Judd Hollow Unit) originally drilled by Union Oil Co of California in 1966. Unocal recovered 3688 ft of slightly brackish water with no reported shows of oil or gas on a drill-stem test of Redwall (Mississippian) between 6390 and 6506 ft. Formation tops include Hermosa (Pennsylvanian) at 6120 ft, Molas 6245, Redwall 6295, Ouray (Devonian) 6899, Elbert 6995 and Cambrian at 7169 ft. Kelly bushing elevation is 5125 ft.

Rangeland's plans call for the well

to be reentered, cleaned out to its original depth, and then deepened by about 2009 ft to a new total depth of 9350 ft. The deepening is designed to evaluate the Bright Angel shale (Cambrian), anticipated at 8100 ft; the Tapeats sand (Cambrian) at about 8400 ft; and the Precambrian Chuar

Group, estimated at 8690 ft.

The remote site, on which an Environmental Assessment was performed by the Bureau of Land Management (PI 6-9-94), is 37 miles south of the southernmost producer

(Please see Utah, Page 2)

Harken Schedules New Four Corners Exploration

DALLAS-BASED HARKEN Southwest Corp will evaluate Paradox zones at an exploratory test staked off the southern flank of the Paradox Basin seven miles southwest of Teec Nos Pos, Arizona.

The Apache County venture, the 7X Black Rock in ne sw 17-40n-29e, is projected to 6469 ft in Paradox and will be drilled as a twin to a 155-ft junked hole drilled in 1990 by

Chuska Energy Co (Harken acquired Chuska last year).

The site is about three quarters of a mile from two active Paradox gas producers completed by Chuska in early 1990 in Black Rock field. To the southeast, the Harken-operated 5 Black Rock, sw sw 16-40n-29e, has produced more than 978 million cu ft

(Please see Harken, Page 2)

NEWSLETTER
DAILY ACTIVITY REPORT
WESTERN COLORADO
UTAH
NEW MEXICO
ARIZONA & NEVADA

SECTION I
SECTION II
SECTION III
SECTION IV
SECTION V
SECTION VI



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(Utah, continued from Page 1)

in Upper Valley field, a Kaibab oil pool in southern Garfield County. That field, located on the northern end of the Kaiparowits Basin, is the only producing field in the basin.

Meanwhile, the BLM is preparing an Environmental Assessment for a horizontal venture planned by Union Pacific Resources Co in the Paradox Basin 14 miles north of Monticello, southeastern Utah.

If approved, Union Pacific's 21-1H Winchester will be drilled in nw sw 21-31s-24e, northern San Juan County, presumably to evaluate a horizontal section of the Cane Creek (Paradox) shale. Projected bottom-hole location and objective have not been disclosed.

It's six miles southeast of the inactive Lightning Draw field discovery, a Lower Ismay (Paradox) oil and gas producer in nw ne 35-30s-23e, and seven miles south of deeper Mississippian Leadville oil production in Lisbon field.

Union Pacific also has applied with the BLM for a permit for another apparent horizontal test approximately six miles to the west at the 21-1H Remington in se 21-31s-23e (PI 4-29-94). The latter site is five miles south-southwest of the Lightning Draw field opener and about 10 miles southwest of Lisbon field.

The area is approximately 40 miles southeast of the horizontal Cane Creek play being carried out along the San Juan/Grand County line.

Elsewhere in San Juan County, Meridian Oil Inc has filed Notices of Staking and/or Applications for Permit to Drill with the BLM for three development tests in Kiva field about 21 miles southeast of Blanding.

The proposed ventures are the 13-4 Federal in nw sw 4-39s-25e; 24-4 Federal, se sw 4-39s-25e; and 31-9 Federal in nw ne 9-39s-25e. Objectives were not disclosed.

Kiva field, discovered in 1984, has produced more than 2,076,000 bbls of oil, 3.1 billion cu ft of gas and 2.4 million bbls of water from Ismay and Desert Creek. In March, the field's five active wells combined to produce an average of about 303 bbls of oil, 183,000 cu ft of gas and 2,491 bbls of water per day.

(Harken, continued from Page 1)

of gas with about 3,900 bbls of oil and 5,100 bbls of water from Paradox between 5342 and 5992 ft, and in March was averaging 246,000 cu ft of gas daily. Log tops include Upper Ismay at 5282 ft, Lower Ismay 5340, Desert Creek 5417, Akah 5566, Barker Creek 5722, Pinkerton Trail 5844 and Molas at 6050 ft, measured from a Kelly bushing elevation of 6672 ft.

Northwest of the new location,

Harken's 8 Black Rock, ne ne 18-40n-29e, had produced 953 million cu ft of gas, 3,462 bbls of oil and a small amount of water through March. Production at the latter well is from Paradox between 4928 and 5877 ft.

Black Rock field has produced about 5.1 billion cu ft of gas, 22,000 bbls of oil and 727,000 bbls of water since its discovery in 1973. March production for the pool averaged 1,897,000 cu ft of gas, three bbls of oil

and 10 bbls of water per day.

Twenty-one miles to the east-northeast, in northwestern New Mexico, Harken will drill a 6575-ft Paradox wildcat at the 1 Canal Creek 6K in nesw 6-31n-19w, northwestern San Juan County. This venture, originally permitted by Chuska in 1991, is about 15 miles northwest of Shiprock. It's five miles southeast of Paradox production in Four Corners field.

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Fife Symington
Governor

State of Arizona
Arizona Geological Survey

845 North Park Avenue, #100
Tucson, Arizona 85719
(602) 882-4795

July 19, 1994



Larry D. Fellows
Director and State Geologist

Mr. Clarence Bigelow
Apache County Manager
P. O. Box 428
St. Johns, Arizona 85936

Re: Harken Southwest Corporation Black Rock #7X
Sec. 17, T. 40 N., R. 29 E.
State Permit #881

Dear Mr. Bigelow:

I have enclosed a copy of the approved application to drill the referenced well in northernmost Apache County on the Navajo Nation. Wells drilled on the Navajo Nation in Arizona also require approval and a permit to drill from the U.S. Bureau of Land Management district office in Farmington, New Mexico.

The enclosed copy of the approved application to drill is being sent to you in accordance with the recently adopted policy of the **Oil and Gas Conservation Commission of the State of Arizona** to provide a copy of the approved application to the County Manager of the County in which the well is located. The **Commission** adopted this policy as a courtesy to local governments and to keep local governments informed and advised on exploration drilling efforts in the State of Arizona.

The Commission issues a permit to drill pursuant to A.R.S. §§ 27-513 and 27-516 after it has determined that drilling of the well is in compliance with statutes and rules (*Arizona Administrative Code* Title 12, Chapter 7) and that correlative rights, public health and safety, and subsurface resources will not be compromised.

Please do not hesitate to contact me if I may be of further assistance.

Sincerely,

Steven L. Rauzi
Oil and Gas Program Administrator

Enclosures



Fife Symington
Governor

State of Arizona
Arizona Geological Survey

845 North Park Avenue, #100
Tucson, Arizona 85719
(602) 882-4795

July 19, 1994



Larry D. Fellows
Director and State Geologist

Ms. Rachelle Montgomery
Production Administrator
Harken Southwest Corporation
P. O. Drawer 612007
Dallas, Texas 75261

Re: Harken Southwest Corporation Black Rock No. 7X well
Sec. 17, T. 40 N., R. 29 E., Apache County, Arizona
State Permit #881

Dear Rachelle:

An approved duplicate copy of your Application for Permit to Drill the referenced well, Permit to Drill #881, and filing fee receipt #3067 are enclosed.

The State Permit is issued on the condition that you conduct operations substantially as outlined in the drilling program submitted with the application to drill and that you *notify this office at least 48 hours* before you

- 1) Commence drilling operations;
- 2) Run and cement surface casing; and
- 3) Nipple up and test the BOPE prior to drilling out of the surface casing.

I have also enclosed Form 4, *Well Completion Report* and, should it be necessary, Form 9, *Application to Plug and Abandon* and Form 10, *Plugging Record*. *Sundry Notices* of the BLM may be used to provide this office with a weekly update of wellsite activity.

The Oil and Gas Conservation Commission looks forward to a successful completion of this well.

Sincerely,

Steven L. Rauzi
Oil & Gas Program Administrator

Enclosures

ORGANIZATION REPORT

Full Name of the Company, Organization, or Individual

Harken Southwest Corporation

Post Office Address (Box or Street Address)

P. O. Drawer 612007, Dallas, TX 75261 -or- 2505 N. Hwy 360, Suite 800, Grand Prairie, TX

Plan of Organization (State whether organization is a corporation, joint stock association, firm or partnership, or individual)

Corporation

75050

Purpose of Organization (State type of business in which engaged)

Oil & Gas Exploration

If a reorganization, give name and address of previous organization.

Changed name from Chuska Energy Company

If a foreign corporation, give (1) State where incorporated

Nevada

(2) Name and post office address of state agent
Corporation Service Co.
530 South 4th Street
Las Vegas, Nevada 89101

(3) Date of permit to do business in state

1980

Principal Officers or Partners (if partnership)
NAME

TITLE

POST OFFICE ADDRESS

Mikel D. Faulkner

Chairman of the Board
Chief Executive Officer

P. O. Drawer 612007
Dallas, TX 75261

Richard Schroeder

President
Chief Operating Officer

" "

Bruce Huff

Senior Vice President
Chief Financial Officer

" "

Larry Cummings

Vice President
General Council

" "

DIRECTORS NAME

POST OFFICE ADDRESS

/ All of the above

P. O. Drawer 612007, Dallas, TX 75261

Don Raymond

P. O. Drawer 612007, Dallas, TX 75261

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Production Administrator of the Harken Southwest Corporation (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

Signature Rachelle L. Montgomery

Date 6/24/94



STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION

Organization Report
File One Copy

Form No. 1