SOHIO PETROLEUM COMPANY
EXPLORATION AND PRODUCTION

P. O. BOX 30
CASPER, WYOMING 82602

September 29, 1982
WHW: 116

Cleon Feight
Division of Oil, Gas & Mining
4241 State Office Bldg.
Salt Lake City, UT 84114

Re: Application for Exception to Rule C-3
Red Knoll #33B
1780' FWL, 1500' FNL
Sec. 33, T13N, R7E
Rich County, Utah

Dear Mr. Feight:

Sohio Petroleum Company proposes drilling an exploratory well at the above referenced location to test the Wells, Dinwoody, and Phosphoria formations. This location does not conform with the spacing requirements outlined in Rule C-3 of the Utah Oil and Gas Conservation General Rules and Regulations (amended January 1, 1982). Therefore, an Exception to Rule C-3 is being requested.

This unorthodox location is considered to be the most desirable for the following reasons:

1) The proposed location will locate the well upslope from the Six Mile Creek drainage area. The location which would conform to Rule C-3 is situated at the confluence of two drainages (see attached map).

2) The proposed location will encounter the Wells, Dinwood and Phosphoria formations in optimal structural position. The alternate location would not accomplish the desired results for testing the potential of the Wells formation and the overlying zones of interest.

It is for these reasons that approval of this Rule C-3 exception for an unorthodox location is requested. Sohio Petroleum Company is the operator of all leases within 660 feet of the proposed location.

Please advise if further information is required to approve this application.

Sincerely,

W. H. Ward

W.H. Ward
District Superintendent

TR/jc

cc: M.M.S., Dist. Supervisor, Salt Lake City
J.H. Walters
E.G. Werren
T. Rooney
File

SOHIO PETROLEUM COMPANY
EXPLORATION AND PRODUCTION

P. O. BOX 30
CASPER, WYOMING 82602

September 29, 1982
WHW: 115

Cleon Feight
Division of Oil, Gas and Mining
4241 State Office Bldg.
Salt Lake City, UT 84114

Re: Application for Permit to Drill
Red Knoll #33B
1780' FWL, 1500' FNL
Sec. 33, T13N, R7E
Rich County, Utah

Dear Mr. Feight:

Enclosed are the original and two copies of the Application for Permit to Drill the Red Knoll #33B in Rich County, Utah. The proposed location does not conform to Statewide Spacing Requirements, therefore an Application for Exception to Rule 3-C is attached. Statewide Bond #K00 683449-1-184 (Insurance Company of North America) is in force.

Please advise if further information is required to approve this application.

Sincerely,

W. H. Ward

W.H. Ward
District Superintendent

TR/jc

cc: M.M.S., Dist. Supervisor, Salt Lake City
J.H. Walters
E.G. Werren
T. Rooney
File

RECEIVED
OCT 01 1982
DIVISION OF
OIL, GAS & MINING

Form DOGC-1a

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL & GAS

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work
DRILL [X] DEEPEN [ ] PLUG BACK [ ]

b. Type of Well
Oil Well [ ] Gas Well [X] Other Single Zone [ ] Multiple Zone [ ]

2. Name of Operator
Sohio Petroleum Company

3. Address of Operator
P.O. Box 30, Casper, Wyoming 82602

4. Location of Well (Report location clearly and in accordance with any State requirements.*)
At surface
1780' FWL, 1500' FNL

At proposed prod. zone
1780' FWL, 1500' FNL

14. Distance in miles and direction from nearest town or post office*
19.9 miles to Randolph, UT

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drlg. line, if any) 180'

16. No. of acres in lease

17. No. of acres assigned to this well

18. Distance from proposed location* to nearest well, drilling, completed, or applied for, on this lease, ft.

19. Proposed depth
11,000' (Wells Phosphoria)

20. Rotary or cable tools
Rotary

21. Elevations (Show whether DF, RT, GR, etc.)
6455.8' GR

22. Approx. date work will start*
October 20, 1982

5. Lease Designation and Serial No.
1130015

6. If Indian, Allottee or Tribe Name
N/A

7. Unit Agreement Name
N/A

8. Farm or Lease Name
Red Knoll

9. Well No.
33-B

10. Field and Pool, or Wildcat
Wildcat

11. Sec., T., R., M., or Blk. and Survey or Area
Sec. 33, T13N, R7E

12. County or Parrish 13. State
Rich Utah

23.
PROPOSED CASING AND CEMENTING PROGRAM

Size of Hole	Size of Casing	Weight per Foot	Setting Depth	Quantity of Cement
26"	20"	93#,H40,weld	0-40'	125 sx. Cl. G
17½"	13-3/8"	68#,K55,STC	0-2500'	to surface
12¼"	9-5/8"	47,43.5,40#,SS95 LTC	0-7500'	to surface
8½"	7"	26,23#,SS95,LTC	0-11000'	to 7500'

The proposal is to drill to ±11,000' in the Wells formation. 20" conductor csg. will be set at 40', 13-3/8" surface csg. will be set at ± 2500' and 9-5/8" intermediate csg. will be set at ± 7500'. All strings will be cemented to surface. The 7" production csg. will be set at ± 11,000' and cemented back to 7500'. To 2500' an annular preventer will be used as a diverter. After NU at 2500', BOP's will be tested to ½ working pressure. During drlg., pipe rams and Hydril will be tested daily and noted on daily drilling report. The blind rams will be tested after each trip. A DST will be run and a 60' section will be cored in both the Dinwoody and Phosphoria formations. Logs will be run from surf. to T.D. Anticipated formation tops: Nugget - 3100', Ankareh - 4300', Thaynes - 5800', Woodside - 7900', Dinwoody - 9100', Phosphoria - 9700' and Wells - 10,250'. Production stimulation will be accomplished as needed.
Utah statewide bond in force, K00 683 449-1-184 (Ins. Co of N. America). Attachments: 1) Rule C-3 excep.; 2) Certified surveyor plat; 3) BOP diagram.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, 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 W. H. Ward W.H. Ward Title District Superintendent Date Sept. 29, 1982

(This space for Federal or State office use)

Permit No. APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING Approval Date

Approved by Title Date

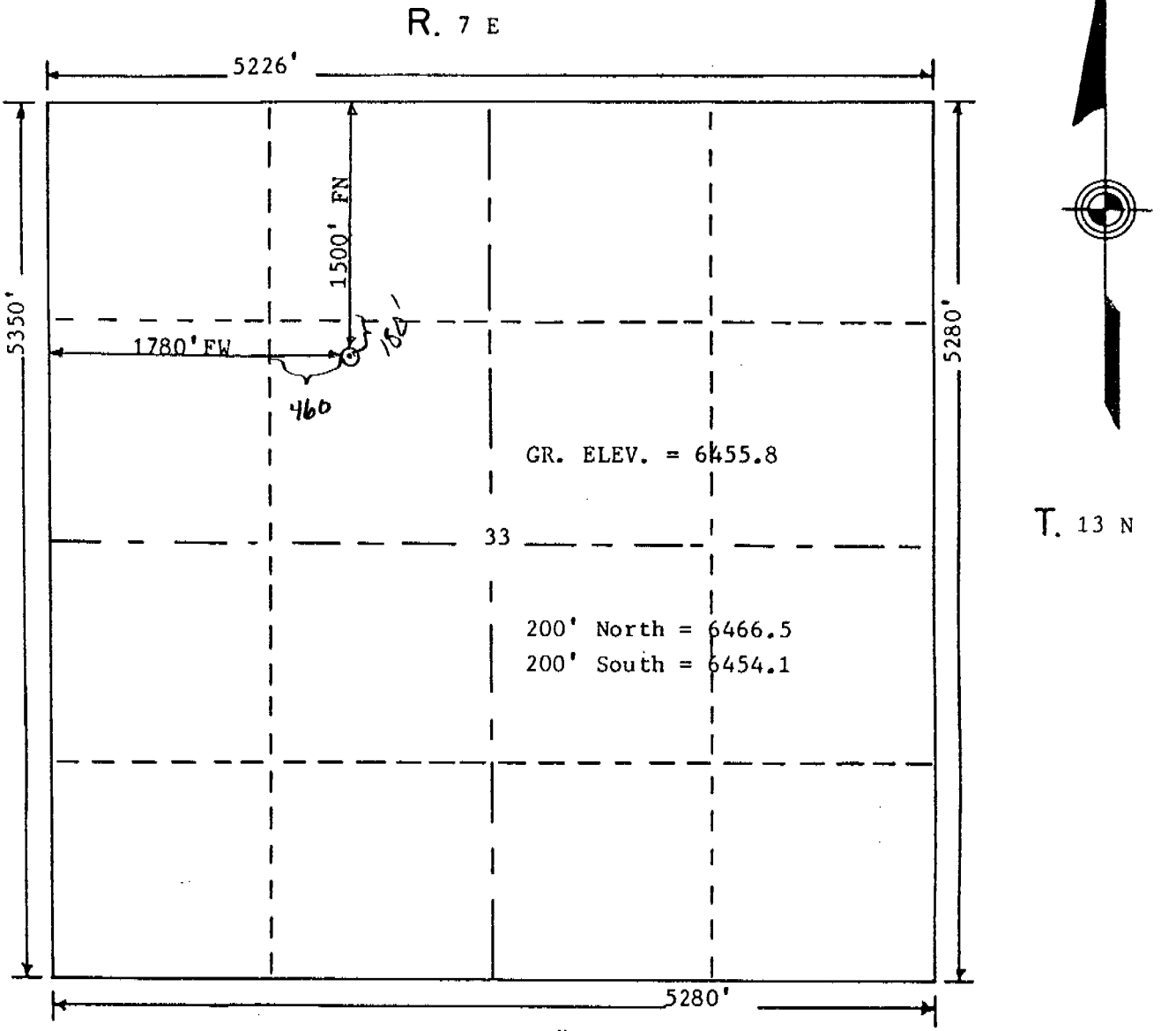
Conditions of approval, if any:

DATE: 10-5-82
BY: Norman C. Stout

RECEIVED
OCT 01 1982
DIVISION OF OIL, GAS & MINING

*See Instructions On Reverse Side

FORM F-106



Scale··· 1" = 1000'

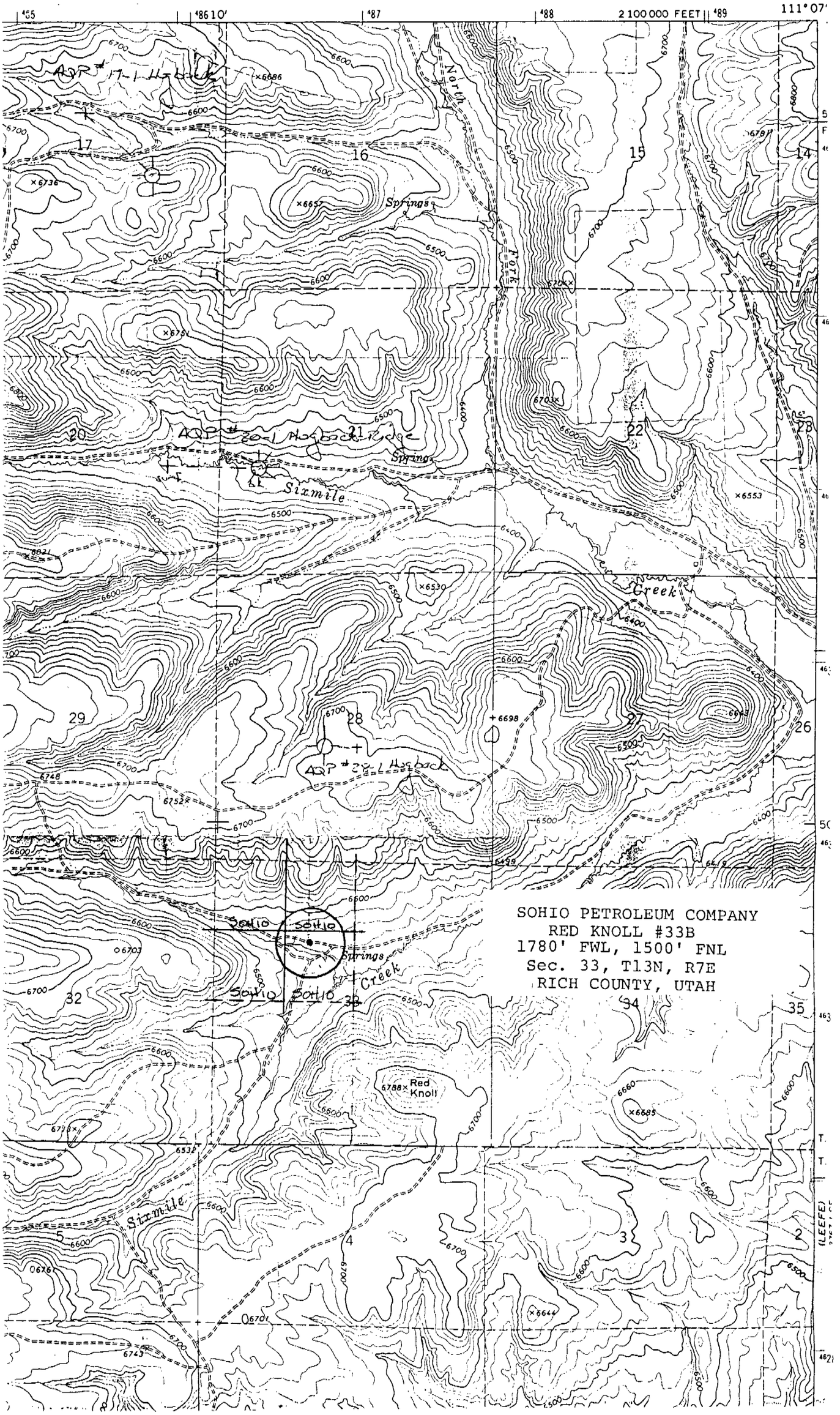
Powers Elevation of Denver, Colorado
has in accordance with a request from Terry Rooney
for Sohio Petroleum Company
determined the location of #33-B Red Knoll
to be 1500' FN & 1780' FW Section 33 Township 13 N
Range 7 E of the S L B Meridian
Rich County, Utah

I hereby certify that this plat is an accurate representation of a correct survey showing the location of Red Knoll

Date: Sept. 22, 1982

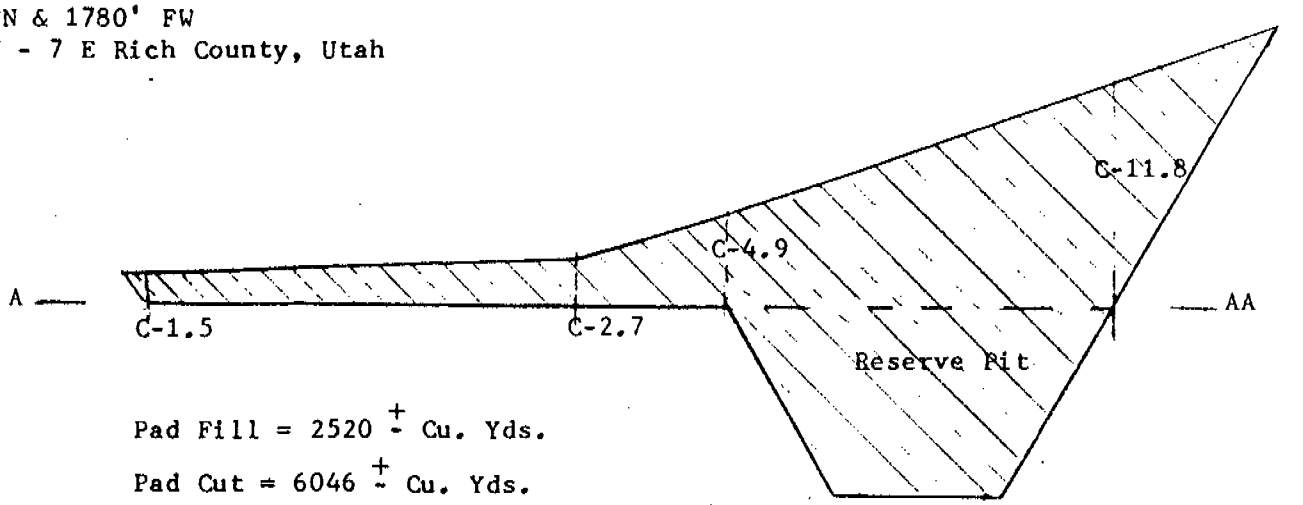
T Nelson
Licensed Land Surveyor No.2711
State of Utah

SAGE CREEK QUADRANGLE
UTAH—RICH CO.
7½ MINUTE SERIES (TOPOGRAPHIC)



Cross - Sections

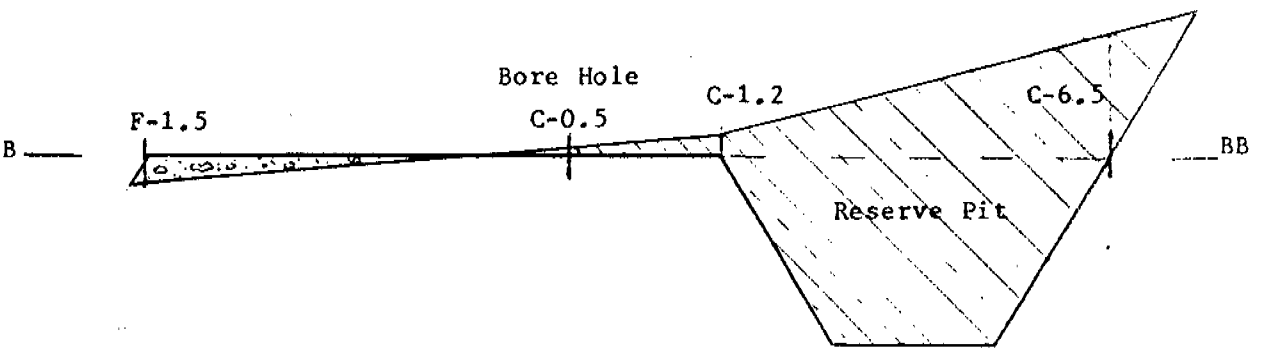
SOHIO PETROLEUM CO.
33-B Red Knoll
1500' FN & 1780' FW
33-13 N - 7 E Rich County, Utah

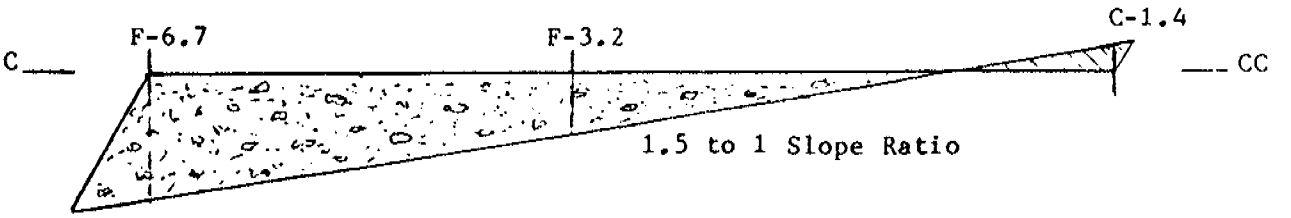


Pad Fill = 2520 ± Cu. Yds.

Pad Cut = 6046 ± Cu. Yds.

Pit Cut = 5100 ± Cu. Yds.





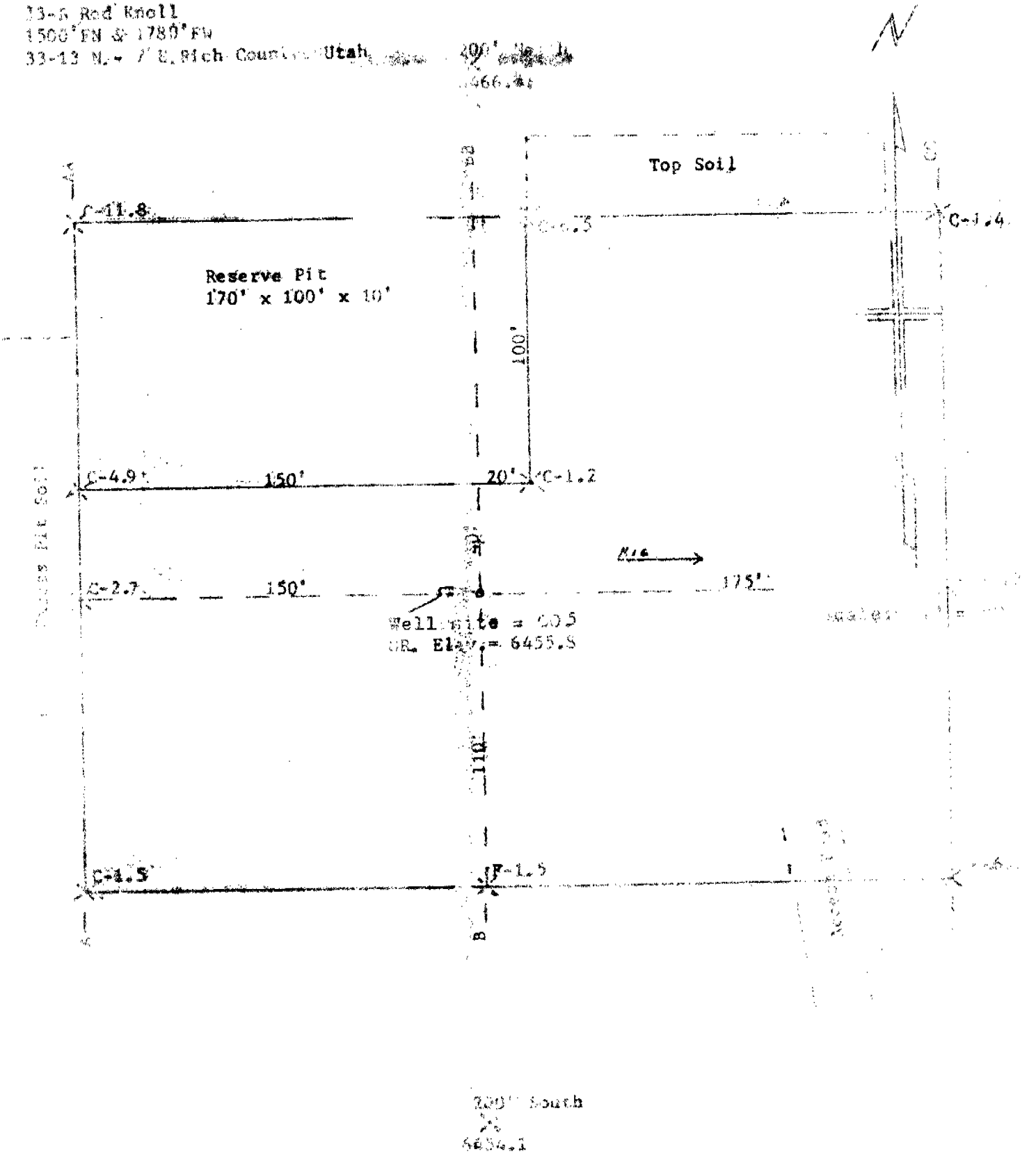
Cut

Fill

Scale 1"= 50' Horiz.

1"= 10' Vert.

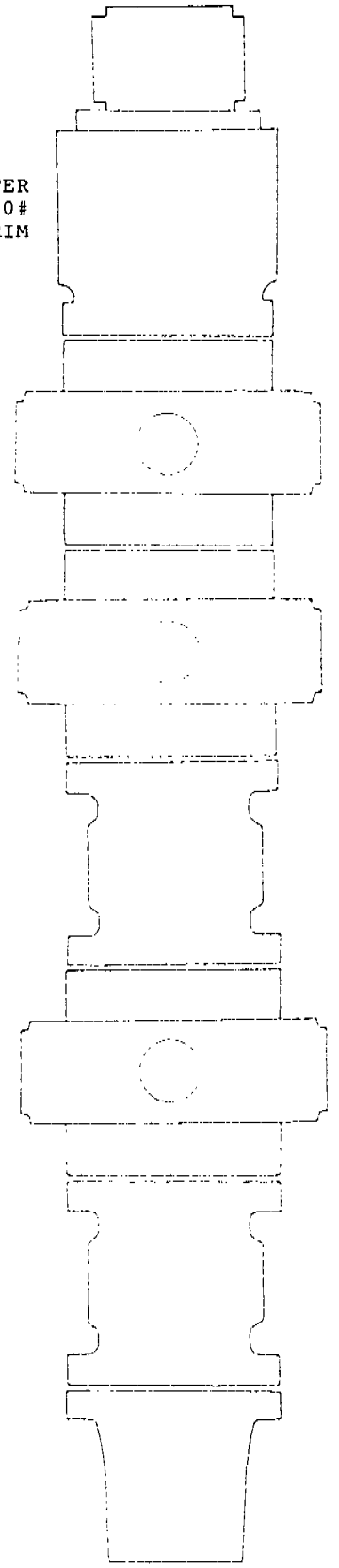
SOHIO PETROLEUM CO.
13-6 Red Knoll
1500'FN & 1780'FW
33-13 N. - 7 E. Rich County Utah



200' South
6634.1

by: Richard Johnson
Powers Elevation

RED KNOLL PROSPECT
BLOWOUT PREVENTION STACK
2500' - T.D.



NOTE: ALL CONNECTIONS FLANGE TYPE, H_2S TRIM.

OPERATOR Sohio Petroleum Co. DATE 10-1-82

WELL NAME Red Knoll 33-B

SEC SENW 33 T 13N R 7E COUNTY Rich

43-033-30038
API NUMBER

STATE
TYPE OF LEASE

POSTING CHECK OFF:

[ ] INDEX	[✓] HL	[ ]
[ ] NID	[✓] PI	[ ]
[✓] MAP	[✓]	[ ]

PROCESSING COMMENTS:

No nearby wells

Request for exception based upon proximity to G/Q

RJR ✓

APPROVAL LETTER:

SPACING: [ ] A-3 _____ UNIT [ ] c-3-a _____ CAUSE NO. & DATE

[ ] c-3-b [✓] c-3-c

SPECIAL LANGUAGE:

- [x] RECONCILE WELL NAME AND LOCATION ON APD AGAINST SAME DATA ON PLAT MAP.

- [x] AUTHENTICATE LEASE AND OPERATOR INFORMATION

- [x] VERIFY ADEQUATE AND PROPER BONDING STATEWIDE

- [x] AUTHENTICATE IF SITE IS IN A NAMED FIELD, ETC.

- [x] APPLY SPACING CONSIDERATION

  - [ ] ORDER 169-1 & 10-25-77 wax temp for 1 yr

  - [ ] UNIT NO

  - [ ] c-3-b

  - [x] c-3-c

- [x] OUTSTANDING OR OVERDUE REPORTS FOR OTHER WELLS OF THE OPERATOR.

- [x] POTASH — NO

October 5, 1982

Sohio Petroleum Company
P. O. Box 30
Casper, Wyoming 82602

RE: Well No. Red Knoll 33-B
SENW Sec. 33, T. 13N, R. 7E
Rich County, Utah

Gentlemen:

Insofar as this office is concerned, approval to drill the above referred to gas well on said unorthodox location is hereby granted in accordance with Rule C-3(c), General Rules and Regulations and Rules of Practice and Procedure.

Should you determine that it will be necessary to plug and abandon this well, you are hereby requested to immediately notify the following:

RONALD J. FIRTH - Engineer Office: 533-5771 Home: 571-6068	OR	CLEON B. FEIGHT - Director Office: 533-5771 Home: 466-4455

Enclosed please find Form OGC-8-X, which is to be completed whether or not water sands (acquifers) are encountered during drilling. Your cooperation in completing this form will be appreciated.

Further, it is requested that this Division be notified within 24 hours after drilling operations commence, and that the drilling contractor and rig number be identified.

The API number assigned to this well is 43-033-30038.

Sincerely,

Norman C. Stout
Administrative Assistant

NCS/as
cc: State Lands
Enclosure

Form OGCC-1 b

STATE OF UTAH

OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

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—" for such proposals.)

1. OIL WELL [ ] GAS WELL [X] OTHER

2. NAME OF OPERATOR: Sohio Petroleum Company

3. ADDRESS OF OPERATOR: P. O. Box 30, Casper, WY 82602

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 1780' FWL, 1500' FNL

5. LEASE DESIGNATION AND SERIAL NO.: 1130015

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A

7. UNIT AGREEMENT NAME: N/A

8. FARM OR LEASE NAME: Red Knoll

9. WELL NO.: 33-B

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 33,T13N, R7E

14. PERMIT NO.: 43-033-30038

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 6455.8', GR

12. COUNTY OR PARISH: Rich

13. STATE: Utah

16. **Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data**

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]	WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]	SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[X]	(Other)			[ ]
(Other)			[ ]	(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. 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.) *

The APD for Red Knoll #33B was approved October 5, 1982. An incorrect cement depth was included on that APD. The intermediate 9-5/8" casing will be cemented back to the surface casing (2500') and not cemented to surface as was stated in APD. All other information remains unchanged.

RECEIVED
OCT 21 1982
DIVISION OF
OIL, GAS & MINING

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

SIGNED W. H. Ward (W. H. Ward) TITLE District Superintendent DATE 10-15-82

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

NAME OF COMPANY: SOHIO

WELL NAME: RED KNOLL 33-B

SECTION SENW 33 TOWNSHIP 13N RANGE 7E COUNTY Rich

DRILLING CONTRACTOR Bomac

RIG # 44

SPUDDED: DATE 11-25-82

TIME 6:00 AM

HOW Rotary

DRILLING WILL COMMENCE _____

REPORTED BY Terry Rodney

TELEPHONE # 307-237-3861

DATE November 29, 1982 SIGNED NS

Form OGCC-1 b

STATE OF UTAH

OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

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—" for such proposals.)

1. OIL WELL [ ] GAS WELL [x] OTHER

2. NAME OF OPERATOR: Sohio Petroleum Company

3. ADDRESS OF OPERATOR: P. O. Box 30, Casper, WY 82602

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 1780' FWL, 1500' FNL, Sec. 33, T13N, R7E

5. LEASE DESIGNATION AND SERIAL NO.: 1130015

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A

7. UNIT AGREEMENT NAME: N/A

8. FARM OR LEASE NAME: Red Knoll

9. WELL NO.: 33-B

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 33,T13N, R7E

12. COUNTY OR PARISH: Rich Co.

13. STATE: Utah

14. PERMIT NO.: 43-033-30038

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 6544.8', GR

16. **Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data**

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	[ ]	FULL OR ALTER CASING	[ ]	WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]	SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]	(Other)			[ ]
(Other) Weekly Well History			[ ]	(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. 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.)*

See Attached Sheet

RECEIVED
DEC 16 1982
DIVISION OF OIL GAS & MINING

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

SIGNED W. H. Ward TITLE Dist. Supt. DATE 11-14-82

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

UTAH
Rich County, Red Knoll 33B (D) Elev. 6544.8' GR (11-25-82)
Sec. 33, T13N, R7E
Red Knoll

AFE #60-2219
Lse. #None
Location: E/2 NW Sec. 33, T13N, R7E
WI: Sohio 100%

11-25 Depth 60' (Conductor depth). Made 0', Operation: Spudding. Spud @ 6AM 11-25-82.

11-26 Depth 621', made 561', drlg.

11-27 Depth 942', made 321', drlg.

11-28 Depth 1140', made 198', drlg.

11-29 Depth 1402', made 262' drlg.

11-30 Depth 1653', made 251', drlg.

12-01 Depth 1827, made 174', drlg.

12-02 Depth 1983, made 156', drlg.

12-03 Depth 2078', made 95', make up fishing tools.

12-04 Depth 2187', made 109' drlg.

12-05 2310', made 123', drlg.

12-06 2403', made 93' last 24 hrs, drlg.

12-7 2497', 94' last 24 hrs, drlg.

12-8 2515', 18' last 24 hrs., Opr. @ report time: making up 17½" BHA.

12-9 Depth 358' in 17½" hole, 298' last 24 hrs, opening 12¼" hole to 17½" hole.

12-10 Depth 998', made 640', TIH.

Form OGCC-1 b

STATE OF UTAH

OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

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—" for such proposals.)

1. OIL WELL [ ] GAS WELL [x] OTHER

2. NAME OF OPERATOR: Sohio Petroleum Company

3. ADDRESS OF OPERATOR: P. O. Box 30, Casper, WY 82602

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 1780' FWL, 1500' FNL, Sec. 33, T13N, R7E

5. LEASE DESIGNATION AND SERIAL NO.: 1130015

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A

7. UNIT AGREEMENT NAME: N/A

8. FARM OR LEASE NAME: Red Knoll

9. WELL NO.: 33-B

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 33, T13N, R7E

12. COUNTY OR PARISH: Rich Co.

13. STATE: Utah

14. PERMIT NO.: 43-033-30038

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 6544.8', GR

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]
(Other) Weekly Well History			[ ]

SUBSEQUENT REPORT OF:

WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[ ]
(Other)			[ ]

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

17. 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.)*

See Attached Sheet

RECEIVED
DEC 27 1982
DIVISION OF
OIL GAS & MINING

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

SIGNED W. H. Ward TITLE Dist. Supt. DATE 12/21/82

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

UTAH
Rich County, Red Knoll 33B (D) Elev. 6544.8' GR (11-25-82)
Sec. 33, T13N, R7E
Red Knoll

AFE #60-2219
Lse. #None
Location: E/2 NW Sec. 33, T13N, R7E
WI: Sohio 100%

11-25 Depth 60' (Conductor depth). Made 0', Operation: Spudding. Spud @ 6AM 11-25-82.

11-26 Depth 621', made 561', drlg.

11-27 Depth 942', made 321', drlg.

11-28 Depth 1140', made 198', drlg.

11-29 Depth 1402', made 262' drlg.

11-30 Depth 1653', made 251', drlg.

12-01 Depth 1827, made 174', drlg.

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12-03 Depth 2078', made 95', make up fishing tools.

12-04 Depth 2187', made 109' drlg.

12-05 2310', made 123', drlg.

12-06 2403', made 93' last 24 hrs, drlg.

12-7 2497', 94' last 24 hrs, drlg.

12-8 2515', 18' last 24 hrs., Opr. @ report time: making up 17½" BHA.

12-9 Depth 358' in 17½" hole, 298' last 24 hrs, opening 12¼" hole to 17½" hole.

12-10 Depth 998', made 640', TIH.

12-11 Depth 2500', reaming to 17½" hole @ 1183'. Made 185'. Reaming.

12-12 Reaming to 17½" hole @ 1429. Made 246', reaming.

12-13 Reaming to 17½" hole @ 1930', Made 501', reaming.

12-14 Reaming @ 2118'.

12-15 Reaming @ 2247'. Made 129'.

12-16 Made 110', reaming @ 2357'.

12-17 TOH at report time. Made 98'. Depth 2455' in 17½" hole.

RECEIVED
DEC 27 1982
DIVISION OF
OIL, GAS & MINING

REBEL TESTERS
Drilco - See-Flo - Degassers
P.O. BOX 1165 - ROCK SPRINGS, WYOMING 82901 - (307)362-7500
24 Hour Service

Date _____

Co. _____

Lease & Well # _____ County & State _____

Sec. _____ T.S. _____ Range _____

Field _____ Rig _____

Operator & Equipment to Test Following _____

Hydrill _____ PSI Choke Manifold _____ PSI

Upper Rams _____ PSI H.C.R. Valve _____ PSI

Lower Rams _____ PSI Manual Valve _____ PSI

Blind Rams _____ PSI Upper Kelly Valve _____ PSI

Casing _____ PSI Lower Valve _____ PSI

Other _____ PSI Tool Joint Connection _____

Remarks _____

_____

_____

_____

Test BOP Stack 8 hour Minimum _____ _____

Test Plug Used _____ _____

Test Subs Used _____ @ _____ each _____ _____

Test Seals _____ @ _____ each _____ _____

Special X over Subs _____ @ _____ each _____ _____

Additional Hours _____ @ _____ Each _____ _____

_____ Miles @ _____ each _____

Operator _____ Unit No. _____ Total _____

Prices Subject to Correction by Bookkeeping Dept.

Customers Signature _____

Customers Order No. _____

ARCCO
MVP 0-1000
Volume & Pressure
12 NOON
1 P.M.
2 P.M.
3 P.M.
4 P.M.
5 P.M.
6 P.M.
7 P.M.
8 P.M.
9 P.M.
10 P.M.
11 P.M.
12 NIGHT
1 A.M.
2 A.M.
3 A.M.
4 A.M.
5 A.M.
6 A.M.
7 A.M.
8 A.M.
9 A.M.
11 A.M.
SOHIO BOMPAC 44 TRANSMISSION 23 PIPE, LEDYARD 88-18
SEC. 33 T.5. 13N RANGE 10 EAST

RECEIVED
DEC 27 1982
DIVISION OF
OIL, GAS & MINING

REBEL TESTERS
Drilco - See-Flo - Degassers
P.O. BOX 1165 - ROCK SPRINGS, WYOMING 82901 - (307)362-7500
24 Hour Service

Date 12-22-82

Co. Sohio

Lease & Well # Redknoll - 33-B County & State Rich Utah

Sec. 33 T.S. 13 North Range 70 EAST

Field Wild Cat Field Rig Bomar Rig 4

Operator & Equipment to Test Following B.O.P stack

Hydrill 2500 PSI Choke Manifold 2500 PSI

Upper Rams 2500 PSI H.C.R. Valve 2500 PSI

Lower Rams 2500 PSI Manual Valve 2500 PSI

Blind Rams 2500 PSI Upper Kelly Valve 2500 PSI

Casing PSI Lower Valve PSI

Other PSI Tool Joint Connection 4½ x hole

Remarks Arrived on location at 10:30 - Started test at 12:00 finished test at 5:45 good test.

Test BOP Stack 8 hour Minimum		$900.00
Test Plug Used 12" Gulf 00		$100.00
Test Subs Used 2 @ 4½ x hole each 50.00		n/c
Test Seals @ each		
Special X over Subs 1 @ 4½ x hole x 4½ IF each 50.00		n/c
Additional Hours @ Each		
225 Miles @ Round trip 1.00 each		$225.00
Operator Lynn + Mike Smith Unit No. 3	Total	$1225.00

Prices Subject to Correction by Bookkeeping Dept.

Customers Signature Bob Strickler

Customers Order No.

Tank 1 Hour

Form OGCC-1 b

STATE OF UTAH

OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

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—" for such proposals.)

1. OIL WELL [ ] GAS WELL [X] OTHER

2. NAME OF OPERATOR: Sohio Petroleum Company

3. ADDRESS OF OPERATOR: P. O. Box 30, Casper, WY 82602

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 1780' FWL, 1500' FNL, Sec. 33, T13N, R7E

5. LEASE DESIGNATION AND SERIAL NO.: 1130015

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A

7. UNIT AGREEMENT NAME: N/A

8. FARM OR LEASE NAME: Red Knoll

9. WELL NO.: 33-B

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 33, T13N, R7E

12. COUNTY OR PARISH: Rich Co.

13. STATE: Utah

14. PERMIT NO.: 43-033-30038

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 6544.8', GR

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]	WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]	SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]	(Other)			[ ]
(Other) Weekly Well History			[ ]				

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

17. 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.) *

See Attached Sheet

CONFIDENTIAL

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

SIGNED W. H. Ward TITLE Dist. Supt. DATE 12-29-82

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

Red Knoll (Cont'd)

12-18 TD 2514', made 59', running 13-3/8" csg.

12-19 2514', cutting off csg & installing head. Rand 13-3/8" csg., set @ 2513.

12-20 2514', made 0', NU BOP.

12-21 2535', made 21', drlg.

12-22 2562', made 27', PU BHA.

CONFIDENTIAL

Form OGCC-1 b

STATE OF UTAH

OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

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—" for such proposals.)

1. OIL WELL ☐ GAS WELL ☒ OTHER

2. NAME OF OPERATOR: Sohio Petroleum Company

3. ADDRESS OF OPERATOR: P. O. Box 30, Casper, WY 82602

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 1780' FWL, 1500' FNL, Sec. 33, T13N, R7E

5. LEASE DESIGNATION AND SERIAL NO.: 1130015

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A

7. UNIT AGREEMENT NAME: N/A

8. FARM OR LEASE NAME: Red Knoll

9. WELL NO.: 33-B

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 33, T13N, R7E

12. COUNTY OR PARISH: Rich Co.

13. STATE: Utah

14. PERMIT NO.: 43-033-30038

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 6544.8', GR

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

- TEST WATER SHUT-OFF ☐
- FRACTURE TREAT ☐
- SHOOT OR ACIDIZE ☐
- REPAIR WELL ☐
- (Other) Weekly Well History ☐
- PULL OR ALTER CASING ☐
- MULTIPLE COMPLETE ☐
- ABANDON* ☐
- CHANGE PLANS ☐

SUBSEQUENT REPORT OF:

- WATER SHUT-OFF ☐
- FRACTURE TREATMENT ☐
- SHOOTING OR ACIDIZING ☐
- (Other) ☐
- REPAIRING WELL ☐
- ALTERING CASING ☐
- ABANDONMENT* ☐

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

17. 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.)*

See Attached Sheet

CONFIDENTIAL

DIVISION OF OIL, GAS & MINING

JAN 07 1983

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

SIGNED F. J. Hoffer TITLE Assistant Dist. Supt. DATE 1-4-82

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

Red Knoll (Cont'd)

12-18 TD 2514', made 59', running 13-3/8" csg.

12-19 2514', cutting off csg & installing head. Rand 13-3/8" csg., set @ 2513.

12-20 2514', made 0', NU BOP.

12-21 2535', made 21', drlg.

12-22 2562', made 27', PU BHA.

12-23 2786', made 224', drlg.

12-24 3098', made 312', dlrg.

12-25 3354', made 246', drlg.

12-26 3470', made 116' drlg.

12-27 3562', made 92', drlg.

12-28 3804', made 242', drlg.

12-29 3892', made 88', TOH to remove DP rubbers.

12-30 4028', made 136', dlrg.

CONFIDENTIAL

RECEIVED
JAN 24 1983
DIVISION OF
OIL, GAS & MINING

REBEL TESTERS
Drilco - See-Flo - Degassers
P.O. BOX 1165 - ROCK SPRINGS, WYOMING 82901 - (307)362-7500
24 Hour Service

Date 1-18-83

Co. Sohio

Lease & Well # Red knoll 33-B County & State Rich, Utah

Sec. 33 T.S. 13N Range 7E

Field W/C Rig Bomac #44

Operator & Equipment to Test Following 900 Series

Hydrill 2500 PSI Choke Manifold 3500 PSI

Upper Rams 2500 PSI H.C.R. Valve 3500 PSI

Lower Rams 2500 PSI Manual Valve 3500 PSI

Blind Rams 3500 PSI Upper Kelly Valve 3000 PSI

Casing PSI Lower Valve 3000 PSI

2 TIW Valves ~~Other~~ 3000 PSI Tool Joint Connection 4½ XH

Remarks Arrived on location at 1:00 P.M. started testing at 2:00 P.M. Finished testing at 6:00 P.M.

"Good Test"

Test BOP Stack 8 hour Minimum 900.00

Test Plug Used 13" Cup Plug 100.00

Test Subs Used 4½ XH Pin 4½ XH Box @ 50.00 each N/C

Test Seals @ each

Special X over Subs @ each

Additional Hours @ Each

225 RT Miles @ 1.00 each 225.00

Operator Bob Pool Unit No. 3 Total 1225.00

Prices Subject to Correction by Bookkeeping Dept.

Customers Signature Paul Pharaah

Customers Order No.

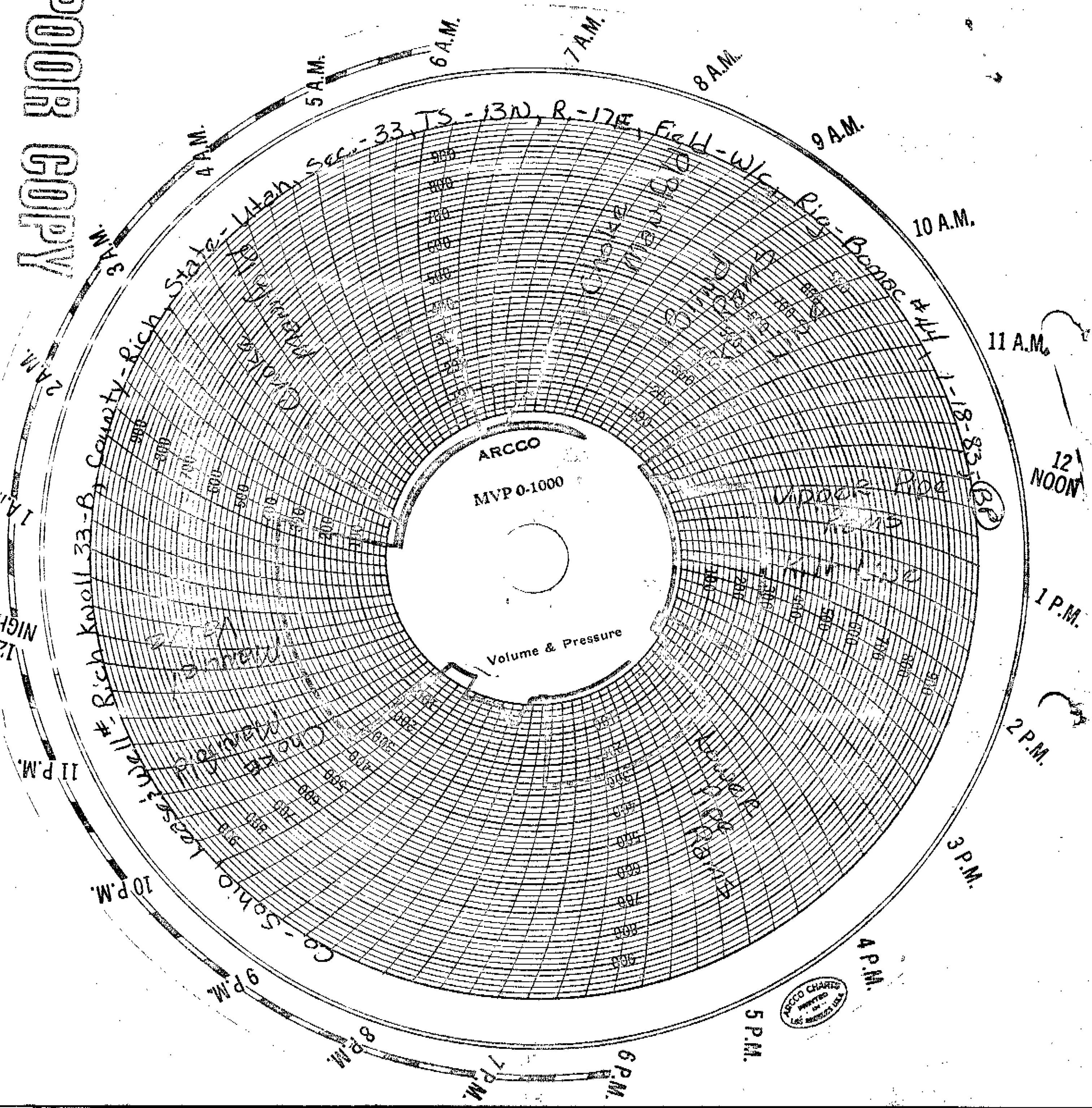
Thank You!

POOR COPY

Co-Schon Lease Well # Reed Knoll 33-3 County - Rich State - Utah Sec - 33 T5-13U R-7E Field - Wildcat Rig - 8
Date 7-19-83
ARCCO
MVP 0-1000
Volume & Pressure
12 NOON
1 P.M.
2 P.M.
3 P.M.
4 P.M.
5 P.M.
6 P.M.
7 P.M.
8 P.M.
9 P.M.
10 P.M.
11 P.M.
12 NIGHT
1 A.M.
2 A.M.
3 A.M.
4 A.M.
5 A.M.
6 A.M.
7 A.M.
8 A.M.
9 A.M.
10 A.M.
11 A.M.

POOR COPY

POOR COPY


ARCCO
MVP 0-1000
Volume & Pressure
Co.-Sohio, Lease, Well #-Rich Knoll 33-B, County-Rich, State-Utah, Sec.-33, TS-13N, R-17E, Field-W/C, Rig-Bomac #44, 1-18-83-BP
Upper Pipe Rams
Lower Pipe Rams
12 NOON
1 P.M.
2 P.M.
3 P.M.
4 P.M.
5 P.M.
6 P.M.
7 P.M.
8 P.M.
9 P.M.
10 P.M.
11 P.M.
12 NIGHT
1 A.M.
2 A.M.
3 A.M.
4 A.M.
5 A.M.
6 A.M.
7 A.M.
8 A.M.
9 A.M.
10 A.M.
11 A.M.
ARCCO CHARTS PRINTED IN LOS ANGELES U.S.A.

Form OGCC-1 b

STATE OF UTAH

OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

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—" for such proposals.)

5. LEASE DESIGNATION AND SERIAL NO.: 1130015

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A

7. UNIT AGREEMENT NAME: N/A

8. FARM OR LEASE NAME: Red Knoll

9. WELL NO.: 33-B

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 33, T13N, R7E

1. OIL WELL ☐ GAS WELL ☒ OTHER

2. NAME OF OPERATOR: Sohio Petroleum Company

3. ADDRESS OF OPERATOR: P. O. Box 30, Casper, WY 82602

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 1780' FWL, 1500' FNL, Sec. 33, T13N, R7E

14. PERMIT NO.: 43-033-30038

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 6544.8', GR

12. COUNTY OR PARISH: Rich Co.

13. STATE: Utah

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF	☐	PULL OR ALTER CASING	☐
FRACTURE TREAT	☐	MULTIPLE COMPLETE	☐
SHOOT OR ACIDIZE	☐	ABANDON*	☐
REPAIR WELL	☐	CHANGE PLANS	☐
(Other) Monthly Well History			☐

SUBSEQUENT REPORT OF:

WATER SHUT-OFF	☐	REPAIRING WELL	☐
FRACTURE TREATMENT	☐	ALTERING CASING	☐
SHOOTING OR ACIDIZING	☐	ABANDONMENT*	☐
(Other)			☐

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

17. 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.)*

CONFIDENTIAL

See Attached Sheet

Monthly Well History for Month of January 1983

RECEIVED
JAN 28 1983
DIVISION OF
OIL, GAS & MINING

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

SIGNED W. H. Ward TITLE Dist. Supt. DATE 1-26-83

W. H. Ward

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

RED KNOLL 33B (Cont'd) (1983)

12-31 4131', 103' drlg.

1-01 4182', 51' dlrg.

1-2 4265', 83', TOH for bit change.

1-3 4358', 93' dlrg.

1-4 4482' 124' tripping.

1-5 4552' made 70' drlg.

1-6 4617 made 65' tripping.

1-7 4667, made 50' drlg.

1-8 4812', 145' drlg.

1-9 4857', 45' drlg.

1-10 5023', 166' drlg.

1-11 5141', 118', TOH for bit.

1-12 5200', 59', TOH

1-13 5222' (22') drlg.

1-14 5280', 58', drlg.

1-15 5418', made 138', drlg.

1-16 5504', made 86' drlg.

1-17 5565', made 61' drlg.

1-18 5706', made 141' drlg.

1-19 5749', made 43' POH to look for leak.

1-20 5855', made 106' drlg.

1-21 5592', made 133' drlg.

CONFIDENTIAL

RECEIVED
FEB 16 1983
DIVISION OF
OIL GAS & MINING

P.O. BOX 1503 - ROCK SPRINGS, WYOMING 82901 - (307)362-7500

Date 2-11-83

Co. Sohio

Lease & Well # Red Knoll 33B County & State Rich, Utah

Sec. 33 T.S. 13N Range 7E

Field [illegible] Rig [illegible]

Operator & Equipment to Test Following 1000 Series

Annular [illegible] PSI Manifold Valve [illegible] PSI

Upper Rams [illegible] PSI Gate Valve [illegible] PSI

Lower Rams [illegible] PSI Manual Valve [illegible] PSI

Blind Rams [illegible] PSI Upper Kelly Valve [illegible] PSI

Casing [illegible] PSI Lower Valve [illegible] PSI

Other [illegible] PSI Test Joint Connection [illegible]

Remarks [illegible]

Test BOP Stack 8 hour Minimum

Test Plug Used [illegible]

Test Subs Used [illegible]

Test Seals [illegible]

Special X over Subs [illegible]

Additional Hours [illegible]

[illegible] Miles @ [illegible]

[illegible] Total [illegible]

Prices Subject to Contract Clauses [illegible] Dogie

Customer Representative [illegible]

Customer Order No. [illegible]

POOR COPY

ARCCO
MVP 0-1000
Volume & Pressure
MIDNIGHT
1 A.M.
2 A.M.
3 A.M.
4 A.M.
5 A.M.
6 A.M.
7 A.M.
8 A.M.
9 A.M.
10 A.M.
11 A.M.
NOON
1 P.M.
2 P.M.
3 P.M.
4 P.M.
5 P.M.
6 P.M.
7 P.M.
8 P.M.
9 P.M.
10 P.M.
11 P.M.

12 NIGHT
1 A.M.
2 A.M.
3 A.M.
4 A.M.
5 A.M.
6 A.M.
7 A.M.
8 A.M.
9 A.M.
10 A.M.
11 A.M.
12 NOON
1 P.M.
2 P.M.
3 P.M.
4 P.M.
5 P.M.
6 P.M.
7 P.M.
8 P.M.
9 P.M.
10 P.M.
11 P.M.
ARCCO
MVP 0-1060
Volume & Pressure

POOR COPY

Form OGCC-1 b

STATE OF UTAH

OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

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—" for such proposals.)

5. LEASE DESIGNATION AND SERIAL NO.: 1130015

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A

7. UNIT AGREEMENT NAME: N/A

8. FARM OR LEASE NAME: Red Knoll

9. WELL NO.: 33-B

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 33, T13N, R7E

1. OIL WELL [ ] GAS WELL [x] OTHER

2. NAME OF OPERATOR: Sohio Petroleum Company

3. ADDRESS OF OPERATOR: P. O. Box 30, Casper, WY 82602

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 1780' FWL, 1500' FNL, Sec. 33, T13N, R7E

14. PERMIT NO.: 43-033-30038

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 6544.8', GR

12. COUNTY OR PARISH: Rich Co.

13. STATE: Utah

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]	WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]	SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]	(Other)			
(Other) Monthly Well History			[ ]	(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. 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.)*

See Attached Sheet

RECEIVED
FEB 28 1983
DIVISION OF
OIL, GAS & MINING

Monthly Well History for Month of February, 1983.

CONFIDENTIAL

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

SIGNED W. H. Ward (W. H. Ward) TITLE Dist. Supt. DATE 2-23-83

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

Red Knoll (Cont'd)

1-22 6087', made 95' drlg.

1-23 6159', made 92' drlg.

1-24 6245', made 86' drlg.

1-25 6342', made 97' last 24 hrs, drlg.

1-26 6362', made 20' PU DP & GIH.

1-27 6475', made 112', drlg.

1-28 6615', made 140' drlg.

1-29 6745', Made 130' drlg.

1-30 6796', made 51', drlg.

1-31 6872', made 80', drlg.

2-1 6937', made 65' drlg.

2-2 6972', made 35' drlg.

2-3 7046', made 74', drlg.

2-4 7156', made 110' drlg.

2-5 7268', made 112' drlg.

2-6 7373', made 105' drlg.

2-7 7450', made 77' drlg.

2-8 7571', made 121' drlg.

2-9 7640', made 69', logging.

2-10 7640', made 0', laying down BHA.

2-11 WOC. Finish LD BHA, RU casing crew.

2-12 PBTD 7636', TIH to drl. cmt.

2-13 7684', made 48' logging.

2-14 7738, made 54' drlg.

2-15 7866', made 128' drlg.

2-16 7917', made 51' drlg.

2-17 7966', made 49' drlg.

2-18 8035', made 69', surveying.

CONFIDENTIAL

CONFIDENTIAL

RECEIVED
MAR 14 1983
DIVISION OF
GAS & MINING

REBEL TESTERS
Drilco - See-Flo - Degassers
P.O. BOX 1165 - ROCK SPRINGS, WYOMING 82901 - (307)362-7000
24 Hour Service

Date 3-9-83

Co. Sohio Oil Co.

Lease & Well # Red Knoll 33-B County & State Rich

Sec. 33 T.S. 13 N Range 7E

Field W.C. Rig Bomac 44

Operator & Equipment to Test Following 13 5/8" 5000 psi Bop stack & Choke manif.

Hydrill 2500 PSI Choke Manifold 5000 PSI

Upper Rams 5000 PSI H.C.K. Valve 5000 PSI

Lower Rams 5000 PSI Manual Valve 5000 PSI

Blind Rams 5000 PSI Upper Kelly Valve 5000 PSI

Casing PSI Lower Valve 5000 PSI

Other Kill line Valve 5000 PSI Tool Joint Connection 4 1/2 X hole

Remarks Arrived on Loc. @ 1:00 p.m. Started Testing @ 1:15. Test Complete @ 4:00 p.m. No Leaks Good test

Test BOP Stack 8 hour Minimum

Test Plug Used 13 3/4" Gotco 900.00

Test Subs Used 2 @ each 25.00 50.00

Test Seals @ each

Special X over Subs @ each

Additional Hours @ Each

250 Miles @ 4.00 no Charge

Operator CH Smith & Scott Smith Unit No. III Total 1050.00

Prices Subject to Correction by Bookkeeping Dept.

Customers Signature Carl Pharaah

Customers Order No.

Thank you much

NIGHT
11 P.M.
10 P.M.
9 P.M.
8 P.M.
7 P.M.
6 P.M.
5 P.M.
4 P.M.
3 P.M.
2 P.M.
1 P.M.
NOON
11 A.M.
10 A.M.
9 A.M.
8 A.M.
7 A.M.
6 A.M.
5 A.M.
ARCCO
MVT 0-1000

12 NIGHT
1 A.M.
2 A.M.
3 A.M.
4 A.M.
5 A.M.
6 A.M.
7 A.M.
8 A.M.
9 A.M.
10 A.M.
11 A.M.
12 NOON
1 P.M.
2 P.M.
3 P.M.
4 P.M.
5 P.M.
6 P.M.
7 P.M.
8 P.M.
9 P.M.
10 P.M.
11 P.M.
ARCCO
MVPC-1000
Volumetric Pressure

Form OGCC-1 b

STATE OF UTAH

OIL & GAS CONSERVATION COMMISSION

CONFIDENTIAL

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

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—" for such proposals.)

5. LEASE DESIGNATION AND SERIAL NO.: N 1130015

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A

7. UNIT AGREEMENT NAME: N/A

8. FARM OR LEASE NAME: Red Knoll

9. WELL NO.: 33-B

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 33, T13N, R7E

1. OIL WELL ☐ GAS WELL ☒ OTHER

2. NAME OF OPERATOR: Sohio Petroleum Company

3. ADDRESS OF OPERATOR: P. O. Box 30, Casper, WY 82602

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 1780' FWL, 1500' FNL, Sec. 33, T13N, R7E

14. PERMIT NO.: 43-033-30038

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 6544.8', GR

12. COUNTY OR PARISH: Rich Co.

13. STATE: Utah

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

- TEST WATER SHUT-OFF ☐
- FRACTURE TREAT ☐
- SHOOT OR ACIDIZE ☐
- REPAIR WELL ☐
- PULL OR ALTER CASING ☐
- MULTIPLE COMPLETE ☐
- ABANDON* ☐
- CHANGE PLANS ☐
- (Other) Monthly Well History

SUBSEQUENT REPORT OF:

- WATER SHUT-OFF ☐
- FRACTURE TREATMENT ☐
- SHOOTING OR ACIDIZING ☐
- REPAIRING WELL ☐
- ALTERING CASING ☐
- ABANDONMENT* ☐
- (Other) ____

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

17. 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.)*

See Attached Sheet

Monthly Well History for Month of March 1983.

RECEIVED MAR 25 1983 DIVISION OF OIL, GAS & MINING

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

SIGNED F. G. Hofer TITLE Assistant Dist. Supt. DATE 3-22-83

(This space for Federal or State office use)

APPROVED BY ____ TITLE ____ DATE ____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

2-19 8130', (95') drlg.

2-20 8207' (77') TOH. Hole in DP.

2-21 8278' (71') drlg.

2-22 8419' (141') drlg.

2-23 8560' (141') drlg.

2-24 8653', (93') drlg.

2-25 8780' (127') drlg.

2-26 8894', (114') drlg.

2-27 8996', (102') tripping.

2-28 9063' (67') drlg.

3-01 9144' (81') drlg.

3-2 9260', (116') drlg.

3-3 9389' (129') drlg.

3-4 9516' (127') drlg.

3-5 9549' (33') drlg.

3-6 9605' (56') circ for core.

3-7 9618' (13') TOH w/core bbl.

3-8 9636'. LD Core #2.

3-9 9697', drld 8½" hole from 9636-9697' (61')

3-10 9738' (41') drlg. Drld 8½" hole from 9697' - 9738'.

3-11 9831', (93') drlg. 8½" hole from 9738'-9831'.

3-12 9860' (29') drlg. 8½" hole from 9831'-9860'.

3-13 9947' (87') drlg. 8½" hole from 9860' -9947'.

3-14 10,042' (95') drlg. 8½" hole from 9947-10,042'.

3-15 10,062', drld 8½" hole from 10,042-10,062'.

3-16 10,121', drld 8½" hole from 10,062-10,121' (59').

3-17 10,151', drld. 8½" hole from 10,121'-10,151' (30').

3-18 10,189' drld. 8½" hole form 10,151-10,189' (38').

CONFIDENTIAL

ORAL APPROVAL TO PLUG AND ABANDON WELL

Operator Sohio Petroleum Company Representative Rodney Schock

Well No. Red Knoll 33-B Location SE ¼ NW ¼ Section 33 Township 13N Range 7E

County Rich Field Wildcat State Utah

Unit Name and Required Depth East Duck Creek Base of fresh water sands

T.D. 10,794' Size hole and Fill per sack 8½ " ' Mud Weight and Top #/gal. '

Casing Size	Set At	Top of Cement	To Be Pulled
13 3/8"	2500'	Surface	
9 5/8"	7640'	2500	

Formation	Top	Base	Shows
Woodside	7980'		
Dinwoody	9555'		
Phosphoria	10,162'		
Wells	10,651'		

Plugging Requirements

From	To	Sacks Cement
1. 100' plug on bottom		
2. 100' plug @ Phosphonia top		
3. 100' plug @ Dinwoody top		
4. 100' Plug @ shoe of 9 5/8" casing		
5. 50' - surface inside 9 5/8" casing and		
13 3/8" X 9 5/8" annulus. Drilling mud		
between plugs.		
If attempt is made to pull 9 5/8" casing,		
a 100' plug in & out of casing stub will		
be required & a 50' plug @ surface inside		
13 3/8' casing.		

REMARKS

DST's, lost circulation zones, water zones, etc.,

Slight gas shows @ 9910' & 10,042'.

May possibly plug back & sidetrack; operator will advise when procedures are determined.

Approved by R. J. Firth Date 3-39-83 Time a.m. p.m.

Ford Chemical
LABORATORY, INC.
Bacteriological and Chemical Analysis
40 WEST LOUISE AVENUE
SALT LAKE CITY, UTAH 84115
PHONE 466-8761

DATE: 03/22/83

CERTIFICATE OF ANALYSIS

N.L. BAROID
BOX 1905
EVANSTON, WYOMING
82930

RED KNOLL-33-B
#60-2219

83-003340

SAMPLE: WATER SAMPLE FROM WELL RECEIVED 3-9-83 FOR COMPLETE ANALYSIS.

Alkalinity,CaCO3 mg/l SM205	328.80	Ammonia, NH3-N mg/l SM417A	.46
Arsenic, As mg/l SM404C	<.001	Barium, Ba mg/l SM303A	.36
Bicarbonate, HCO3 mg/l SM40	401.10	Boron as B mg/l	.15
Cadmium, Cd mg/l SM305A	<.001	Calcium, Ca mg/l SM306A	30.40
Carbonate as CO3 mg/l	<.01	Chloride, Cl SM408A	18.80
Chromium as Cr (Hex.) mg/l	<.001	Chromium,Cr (Tot) mg/l SM30	<.001
Conductivity umhos/cm SM205	850	Copper, Cu mg/l SM308A	.01
Fluoride, F mg/l SM414A&C	.51	Hardness, CaCO3 mg/l SM309R	162
Hydroxide as OH mg/l	<.01	Iron, Fe (Dis) mg/l SM310B	.670
Iron, Fe (Tot) mg/l SM310B	8.500	Lead, Pb mg/l SM311A	.002
Magnesium, Mg mg/l SM313B	20.64	Manganese, Mn mg/l SM314A	.110
Mercury, Hg mg/l SM315A	<.0002	Nickel, Ni mg/l SM249.2	<.01
Nitrate, NO3-N mg/l SM418C	.02	Nitrite as NO2-N mg/l	<.02
Phosphate PO4-P Ortho mg/l	.070	Potassium, K mg/l EPA258.1	21.50
Selenium, Se mg/l SM318C	.002	Silica,SiO2 (Dis) mgl SM426	35.50

All reports are submitted as the confidental property of clients. Authorization for publication of our reports, conclusions, or, extracts from or regarding them, is reserved pending our written approval as a mutual protection to clients, the public and ourselves.

Ford Chemical
LABORATORY, INC.
Bacteriological and Chemical Analysis
40 WEST LOUISE AVENUE
SALT LAKE CITY, UTAH 84115
PHONE 466-8761

DATE: 03/22/83

CERTIFICATE OF ANALYSIS

83-003340-01

RED KNOLL-33-B
#60-2219

FORD CHEMICAL LABORATORIES

BALANCE SHEET FOR SAMPLE: (1) RESULTS

CATIONS	mg/l	meq/l
Calcium, Ca mg/l SM306A	30.400	1.517
Magnesium, Mg mg/l SM313B	20.640	1.698
Iron, Fe (Dis) mg/l SM310B	.670	.024
Sodium, Na mg/l EPA273.1	135.000	5.873
Potassium, K mg/l EPA258.1	21.500	.550

ANIONS	mg/l	meq/l
Carbonate as CO3 mg/l	.000	.000
Bicarbonate, HCO3 mg/l SM403	401.100	6.578
Sulfate, SO4 mg/l SM427C	120.000	2.498
Chloride, Cl SM408A	18.800	.530
Nitrate, NO3-N mg/l SM418C	.020	.000

BALANCE INFORMATION

CATIONS:	9.662
ANIONS:	9.606
TOTAL:	19.268
DIFFERENCE:	.056
SIGMA:	.002

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Ford Chemical
LABORATORY, INC.
Bacteriological and Chemical Analysis
40 WEST LOUISE AVENUE
SALT LAKE CITY, UTAH 84115
PHONE 466-8761

RED KNOLL-33-B
#60-2219

CERTIFICATE OF ANALYSIS

Silver, As mg/l SM319A	<.001	Sodium, Na mg/l EPA273.1	135
Sulfate, SO4 mg/l SM427C	120	Total Dis. Solids mg/l SM20	550
Turbidity NTU	1,000.00	Zinc, Zn mg/l SM323A	.020
pH Units SM424	7.50		

FORD CHEMICAL LABORATORY, INC.

All reports are submitted as the confidental property of clients. Authorization for publication of our reports, conclusions, or, extracts from or regarding them, is reserved pending our written approval as a mutual protection to clients, the public and ourselves.

CONFIDENTIAL

Form OGCC-1 b

STATE OF UTAH

OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

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—" for such proposals.)

1. OIL WELL [ ] GAS WELL [X] OTHER

2. NAME OF OPERATOR: Sohio Petroleum Company

3. ADDRESS OF OPERATOR: P.O. Box 30, Casper, Wyoming 82602

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 1780' FWL, 1500' FNL

5. LEASE DESIGNATION AND SERIAL NO.: Fee

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: NA

7. UNIT AGREEMENT NAME: East Duck Creek

8. FARM OR LEASE NAME: Red Knoll

9. WELL NO.: 33-B

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 33, T13N, R7E

14. PERMIT NO.: 43-033-30038

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 6455.8' GR

12. COUNTY OR PARISH: Rich

13. STATE: Utah

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[X]
(Other)			[ ]

SUBSEQUENT REPORT OF:

WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[ ]
(Other)			[ ]

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

17. 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.)*

The APD (approved October 5, 1982) specified total depth to be 11,000'. Approval is requested to change the total depth to 12,800'. This will enable testing of the Madison formation. The depth as of 3/31/83 is 10,794'.

Verbal approval was received 3/31/83 during a phone conversation between Ron Firth, Div. Oil, Gas, Mining, and Terry Rooney, Sohio. Notice was given verbally to Bill Martens, MMS, 3/31/83.

APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING
DATE: 4-11-83
BY: Johnson Ostrout

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

SIGNED: R D Vassar — R. D. Vassar TITLE: Dist. Drlg. Supt. DATE: 4-6-83

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

SOHIO PETROLEUM COMPANY
EXPLORATION AND PRODUCTION

P. O. BOX 30
CASPER, WYOMING 82602

April 6, 1983
RDV:4

CONFIDENTIAL

Supervisor
Division of Oil, Gas, & Mining
4241 State Office Bldg.
Salt Lake City, Utah 84114

RE: Red Knoll 33-B
Rich Co., Utah

Supervisor:

Attached you will find the original and one copy of the Sundry Notice requesting approval to change the total depth at the Red Knoll #33-B well from 11,000' to 12,800'. This will enable testing of the Madison formation.

Sincerely,

R D Vassar

R. D. Vassar
Dist. Drilling Superintendent

TR:ed
Attachments

cc: Bill Martens, MMS, Salt Lake City
J. H. Walters
T. Rooney
File

RECEIVED
APR 08 1983
DIVISION OF
OIL, GAS & MINING

RECEIVED
APR 08 1983
DIVISION OF
OIL, GAS & MINING

REBEL TESTERS
Drilco - See-Flo - Degassers
P.O. BOX 1165 - ROCK SPRINGS, WYOMING 82901 - (307)362-7500
24 Hour Service

Date 4-6-83

Co Sabre Petroleum Co.

Lease & Well # Ute Tribal 3-6 County & State Duchesne, Utah

Sec. 33 T.S. 13N Range 7E

Field n/a Rig Bennett #4

Operator & Equipment to Test Following 900 Series

Hydrill 1500	PSI	Choke Manifold 3500	PSI
Upper Rams 3500	PSI	H.C.K. Valve 3500	PSI
Lower Rams 3500	PSI	Manual Valve 3500	PSI
Blind Rams 3500	PSI	Upper Kelly Valve 3500	PSI
Casing	PSI	Lower Valve 3500	PSI
Other	PSI	Tool Joint Connection 4½ XH	

Remarks Arrived on location at 3:00 AM started testing at 4:00 AM finished testing at 7:45 AM

"Good Test"

Test BOP Stack 8 hour Minimum 300.00

Test Plug Used 10" Cup Tool 100.00

Test Subs Used 4½ XH Pin 4½ XH Box @ 50.00 each (2) N/C

Test Seals @ each

Special X over Subs 4½ XH Box @ 4½ FH Pin 50.00 each (1) N/C

Additional Hours @ Each

250 RT. Miles @ 1.00 each N/C

Operator Bob Peel Unit No. 3 Total 900.00

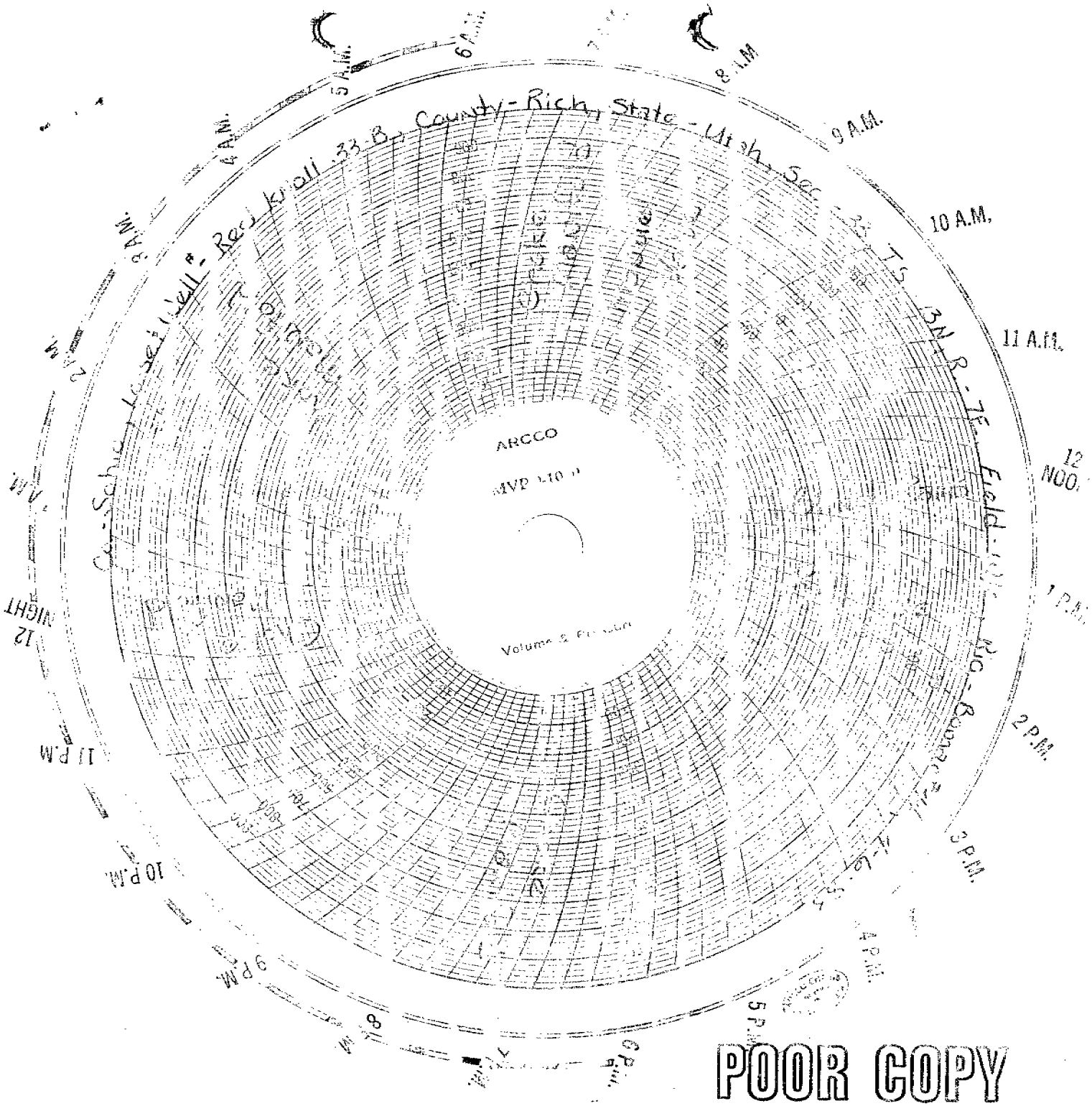
Prices Subject to Correction by Bookkeeping Dept.

Customers Signature [signature]

Customers Order No.

Thank You

POOR COPY


Co-Schar Lasselwell - Red Knoll 33-B, County - Rich, State - Utah, Sec. 33, T.5 3N, R. 7E, Field - Wildcat
ARCCO
MVP 1-10
Volume & Pressure
6 A.M.
5 A.M.
8 A.M.
9 A.M.
10 A.M.
11 A.M.
12 NOON
1 P.M.
2 P.M.
3 P.M.
4 P.M.
5 P.M.
6 P.M.
7 P.M.
8 P.M.
9 P.M.
10 P.M.
11 P.M.
12 MIDNIGHT
1 A.M.
2 A.M.
3 A.M.
4 A.M.

POOR COPY

ARCCO
MVP 0-1000
Volume & Pressure
8 A.M.
9 A.M.
10 A.M.
11 A.M.
12 NOON
1 P.M.
2 P.M.
3 P.M.
4 P.M.
5 P.M.
6 P.M.
7 P.M.
8 P.M.
9 P.M.
10 P.M.
11 P.M.
12 NIGHT
1 A.M.
2 A.M.
3 A.M.
4 A.M.
5 A.M.
6 A.M.
7 A.M.
Co.-Schic Lease; Well #- Red Knoll 33-B; County-Rich State-Utah
Sec. 33 T5-13N R-7E Field-Uinta
Date 4-6-83

POOR COPY

Core Services, Inc.

TerraTek

April 12, 1983

Sohio Petroleum Co.
2200 First of Denver Plaza
633 17th Street
Denver, CO 80202

Attn: Mr. Don Hartman

Subject: Core Analysis Data; Red Knoll No. 33-B Well; Rich County, Utah; TTCS File No. 325

Gentlemen:

Diamond coring equipment and water base mud were used to obtain 4.0-inch diameter cores from the formations and intervals shown on the preceding page in the subject well. A representative of Terra Tek Core Services received the cores at the wellsite where they were preserved in plastic polytubing and transported to our Salt Lake City laboratory for routine plug analysis.

A core gamma log was recorded and, along with porosity, permeability, grain density and fluid saturation plots, is shown on the enclosed TEKLOG.

Residual fluid removal was accomplished by the Dean-Stark low temperature solvent extraction method on one-inch diameter plug samples drilled from the cores. Porosities were determined by Boyle's law (helium) grain volumes and Archimedes (mercury) bulk volumes. Horizontal permeabilities to nitrogen were measured in a hassler sleeve using the traveling miniscus method to monitor downstream flow.

Data resulting from the above analysis is tabulated on pages one through three. Following this analysis is a summary reflecting average data by zones based on permeability, porosity and fluid saturation variations.

As requested, the cores were slabbed and the slab segments photographed in color. The photographs of cores 1 and 2 have been mailed to Mr. Hartman and those of cores 3 and 4 are included in the back of one of the reports to him.

• 360 Wakara Way • Salt Lake City, Utah 84108 • (801) 584-2480
• 920 Central Avenue • Suite #2 • Billings, Montana 59102 • (406) 256-0371

The slab segments and core butts are temporarily being stored in our Salt Lake City laboratory awaiting additional instructions.

We sincerely appreciate this opportunity to be of service.

Very truly yours,

Jack R. Good

Jack R. Good
Laboratory Director

JRG:gd
Enclosures

FINAL DISTRIBUTION LIST

Sohio Petroleum Company
Red Knoll No. 33-B Well
Rich County, Utah

TTCS File No. 325

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P.O. Box 30
Casper, WY 82602

Attn: W.H. Ward

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2200 First of Denver Plaza
633 17th St.
Denver, CO 80202

Attn: J.H. Walters

2 copies:

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2200 First of Denver Plaza
633 17th St.
Denver, CO 80202

Attn: E.G. Werren

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American Quasar Petroleum
1700 Broadway, Ste. 707
Denver, CO 80290

Attn: Clare Gregg

1 copy:

El Paso Exploration Co.
P.O. Box 4289
Farmington, NM 87499-4689

Terra Tek Core Services

University Research Park - 360 Wakara Way - Salt Lake City, Utah 84108 - (801) 584-2480 - TWX 910-925-5284

SOHIO PETROLEUM COMPANY

Well:	Red Knoll #33-B	State:	Utah	Date:	07 Apr 1983
Field:	Wildcat	County:	Rich	TTCS File #:	325
Drilling Fluid:	LSND	Location:	Sec33 - T13N - R7E	Elevation:	6478 KB

DEAN-STARK PLUG ANALYSIS

Sample Number	Depth (feet)	Permeability Horz (md)	Porosity (%)	Saturation Oil (%)	Saturation H2O (%)	Grain Density (gm/cc)	Lithology	
DINWOODY FORMATION								
1	9605.0-06.0	0.01	0.9	0.0	34.1	2.87	Dol,crpxln,qtz fracs	
2	9606.0-07.0	<0.01	0.7	0.0	77.4	2.84	Dol,crpxln	
3	9607.0-08.0	<0.01	0.6	0.0	60.9	2.81	Dol,crpxln	
4	9608.0-09.0	<0.01	0.1	0.0	90.2	2.83	Dol,crpxln	
5	9609.0-10.0	2.0	0.7	0.0	51.6	2.85	Dol,crpxln	HF
6	9610.0-11.0	<0.01	0.6	0.0	78.1	2.82	Dol,crpxln	
7	9611.0-12.0	0.55	1.6	0.0	87.3	2.81	Dol,crpxln,shly	HF
8	9612.0-13.0	<0.01	1.2	0.0	81.5	2.82	Dol,crpxln,shly	
9	9613.0-14.0	<0.01	0.4	0.0	79.8	2.86	Dol,crpxln,qtz fracs	
10	9614.0-15.0	<0.01	0.7	0.0	66.9	2.87	Dol,crpxln,qtz fracs	
11	9615.0-16.0	<0.01	0.6	0.0	63.6	2.86	Dol,crpxln	
12	9616.0-17.0	<0.01	0.3	0.0	80.7	2.84	Dol,crpxln,shly	
13	9617.0-18.0	<0.01	1.2	0.0	71.3	2.79	Dol,crpxln,shly	
14	9618.0-19.0	<0.01	0.6	0.0	89.5	2.79	Dol,crpxln,shly	
15	9619.0-20.0	0.01	1.1	0.0	63.5	2.79	Dol,crpxln,shly	
16	9620.0-21.0	<0.01	1.4	0.0	48.4	2.84	Dol,crpxln	
17	9621.0-22.0	<0.01	1.3	0.0	44.0	2.86	Dol,crpxln,qtz fracs	
18	9622.0-23.0	<0.01	1.0	0.0	46.4	2.82	Dol,crpxln	

Terra Tek Core Services

University Research Park - 360 Wakara Way - Salt Lake City, Utah 84108 - (801) 584-2480 - TWX 910-925-5284

SOHIO PETROLEUM COMPANY Date: 07 Apr 1983 TTCS File #: 325
Well: Red Knoll #33-B

DEAN-STARK PLUG ANALYSIS

Sample Number	Depth (feet)	Permeability Horz (md)	Porosity (%)	Saturation Oil (%)	Saturation H2O (%)	Grain Density (gm/cc)	Lithology	
19	9623.0-24.0	<0.01	1.0	0.0	41.9	2.81	Dol,crpxln,qtz fracs	
20	9624.0-25.0	<0.01	0.7	0.0	42.9	2.81	Dol,crpxln,qtz	
21	9625.0-26.0	<0.01	1.0	0.0	40.0	2.84	Dol,crpxln	
22	9626.0-27.0	12	1.5	0.0	34.5	2.80	Dol,crpxln	HF
23	9627.0-28.0	<0.01	0.9	0.0	44.7	2.82	Dol,crpxln	
24	9628.0-29.0	0.05	0.5	0.0	95.2	2.78	Dol,crpxln,sl/shly	HF
25	9629.0-30.0	<0.01	0.7	0.0	56.5	2.78	Dol,crpxln,sl/shly	
26	9630.0-31.0	<0.01	0.6	0.0	56.3	2.80	Dol,crpxln,sl/shly	
27	9631.0-32.0	<0.01	0.8	0.0	59.8	2.79	Dol,crpxln,sl/shly	
28	9632.0-33.0	<0.01	0.5	0.0	68.8	2.77	Dol,crpxln,sl/shly	
29	9633.0-34.0	<0.01	0.8	0.0	49.0	2.77	Dol,crpxln,shly	
30	9634.0-35.0	0.01	0.9	0.0	65.9	2.73	Dol,crpxln,shly	
	9635.0 - 10331.0						DRILLED INTERVAL	
PHOSPHORIA FORMATION								
31	10331.0-32.0	<0.01	0.9	0.0	79.3	2.69	Sd,vfg,dol,shly	
32	10332.0-33.0	<0.01	0.7	0.0	37.9	2.64	Sd,vfg,dol,shly	
33	10333.0-34.0	<0.01	0.7	0.0	79.9	2.68	Sd,vfg,sol	
34	10334.0-35.0	<0.01	1.3	0.0	46.3	2.67	Sd,vfg,dol,qtz fracs	
35	10335.0-36.0	<0.01	0.6	0.0	80.5	2.64	Sd,vfg,dol,qtz fracs	
36	10336.0-37.0	<0.01	1.1	0.0	75.6	2.67	Sd,vfg,dol	
37	10337.0-38.0	0.07+	1.1	0.0	57.3	2.67	Sd,vfg,dol	

+ Horizontal dehydration crack

Terra Tek Core Services

University Research Park - 360 Wakara Way - Salt Lake City, Utah 84108 - (801) 584-2480 - TWX 910-925-5284

SOHIO PETROLEUM COMPANY Date: 07 Apr 1983 TTCS File #: 325

Well: Red Knoll #33-B

DEAN-STARK PLUG ANALYSIS

Sample Number	Depth (feet)	Permeability Horz (md)	Porosity (%)	Saturation Oil (%)	Saturation H2O (%)	Grain Density (gm/cc)	Lithology
38	10338.0-39.0	<0.01	0.5	0.0	31.3	2.72	Sh
39	10339.0-40.0	<0.01	0.2	0.0	36.9	2.69	Sd,vfg,dol,shly,slty
40	10340.0-41.0	<0.01	0.6	0.0	86.1	2.74	Sd,vfg,dol,shly,slty
41	10341.0-42.0	<0.01	0.3	0.0	36.4	2.69	Sd,vfg,dol,shly,slty
42	10342.0-43.0	<0.01	0.3	0.0	90.4	2.72	Sd,vfg,dol,shly
43	10343.0-44.0	<0.01	0.5	0.0	91.7	2.73	Sd,vfg,dol,shly
44	10344.0-45.0	<0.01	0.4	0.0	91.5	2.75	Sd,vfg,dol,shly
45	10345.0-46.0	<0.01	0.8	0.0	63.3	2.67	Sd,vfg,dol,qtz
46	10346.0-47.0	<0.01	1.2	0.0	39.8	2.76	Sd,vfg,dol,shly
47	10347.0-48.0	<0.01	0.4	0.0	93.9	2.77	Sd,vfg,dol
48	10348.0-49.0	0.17+	1.1	0.0	82.7	2.97	Sd,vfg,dol,cons
49	10349.0-50.0	<0.01	1.1	0.0	54.9	2.72	Sd,vfg,dol
50	10350.0-51.0	<0.01	1.0	0.0	56.2	2.84	Sd,vfg,v/dol
	10351.0 - 10354.0						NOT RECOVERED

+ Horizontal dehydration crack

Terra Tek Core Services

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SOHIO PETROLEUM COMPANY

Well:	Red Knoll #33-B	State:	Utah	Date:	07 Apr 1983
Field:	Wildcat	County:	Rich	TTCS File #:	325
Drilling Fluid:	LSND	Location:	Sec33 - T13N - R7E	Elevation:	6478 KB

DEAN-STARK PLUG ANALYSIS
DATA SUMMARY

Zone Number	Depth Interval (feet)	Number of samples	Permeability Horz (md)	Porosity (%)	Saturation Oil (%)	Saturation H2O (%)	Grain Density (gm/cc)
DINWOODY FORMATION							
1	9605.0-635.0	30	<0.01 [0.00]	0.8 [0.3]	0.0 [0.0]	62.4 [17.8]	2.82 [0.0]
PHOSPHORIA FORMATION							
1	10331.0-351.0	20	<0.01 [0.00]	0.7 [0.3]	0.0 [0.0]	65.6 [21.9]	2.72 [0.1]

[ ] Sample standard deviation

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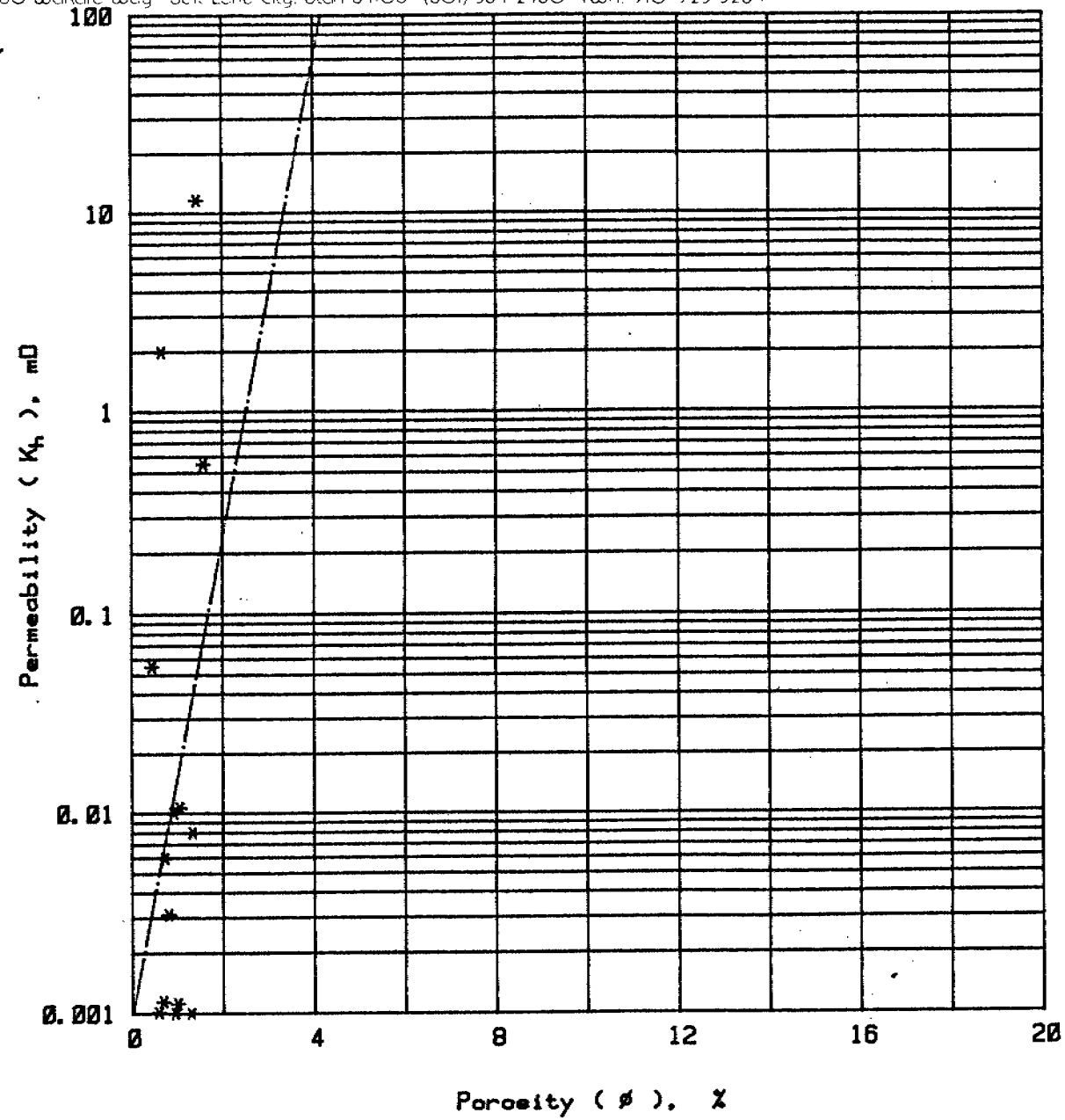
HORIZONTAL PERMEABILITY VS POROSITY

SOHIO PETROLEUM COMPANY

Red Knoll #33-B
Wildcat Field
Rich County, Utah
Dinwoody Formation

Depth Interval : 9605 to 9635 feet		
Permeability (K_h), mD		
Min	Max	Average
0.00	11.54	0.01
Porosity (ø), %		
Min	Max	Average
0.47	1.60	0.98
Equation of the Line		
Log K_h = Slope ø + Log of intercept		
Log K_h = 1.1997 ø − 3.0291		
Correlation Coefficient : .309		



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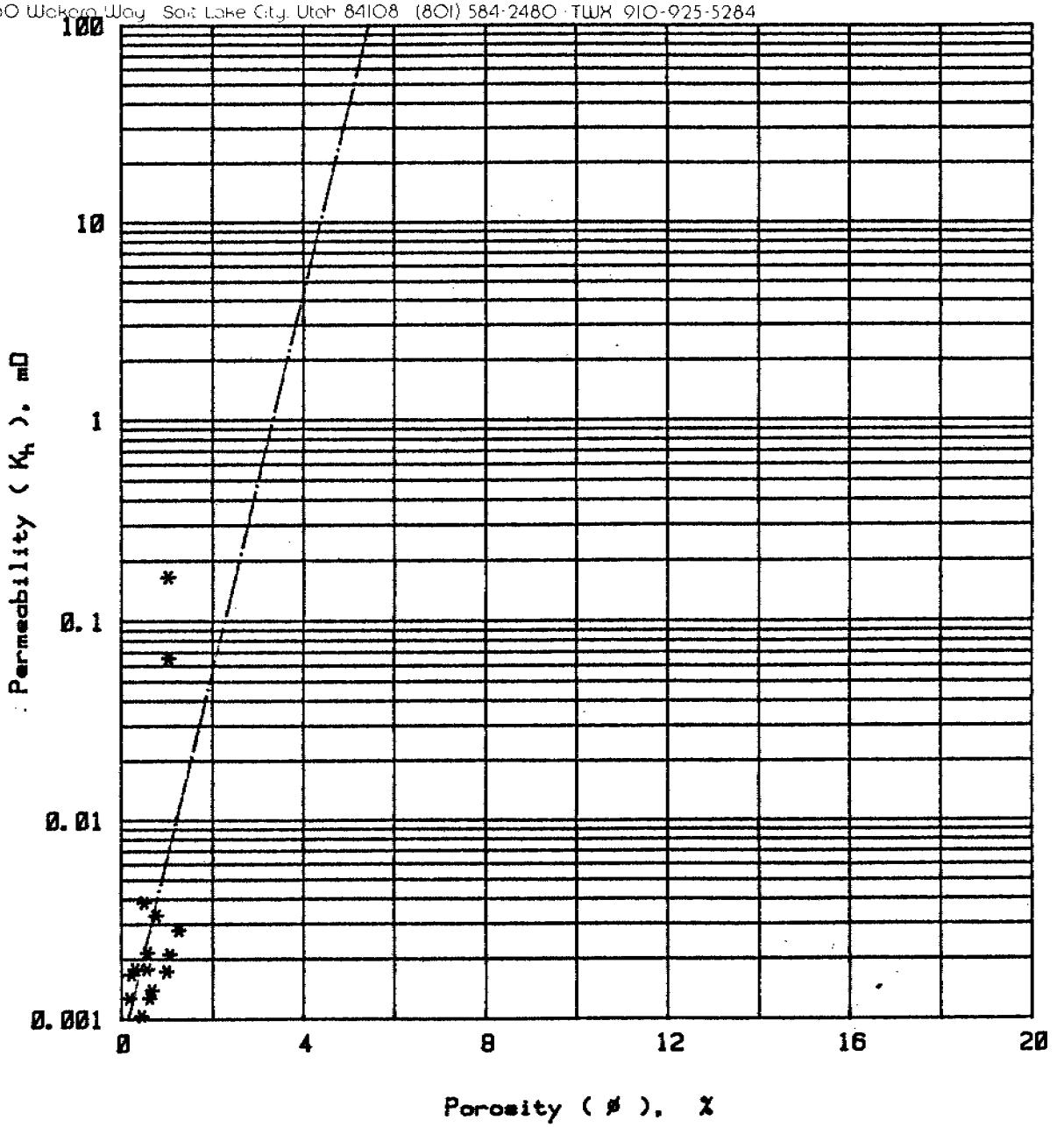
HORIZONTAL PERMEABILITY VS POROSITY

SOHIO PETROLEUM COMPANY

Red Knoll #33-B
Wildcat Field
Rich County, Utah
Phosphoria Formation

Depth Interval : 10331 to 10351 feet		
Permeability (K_h), mD		
Min	Max	Average
0.00	0.17	0.00
Porosity (ø), %		
Min	Max	Average
0.21	1.29	0.71
Equation of the Line		
Log K_h = Slope ø + Log of intercept		
Log K_h = .9471 ø - 3.165		
Correlation Coefficient : .495		



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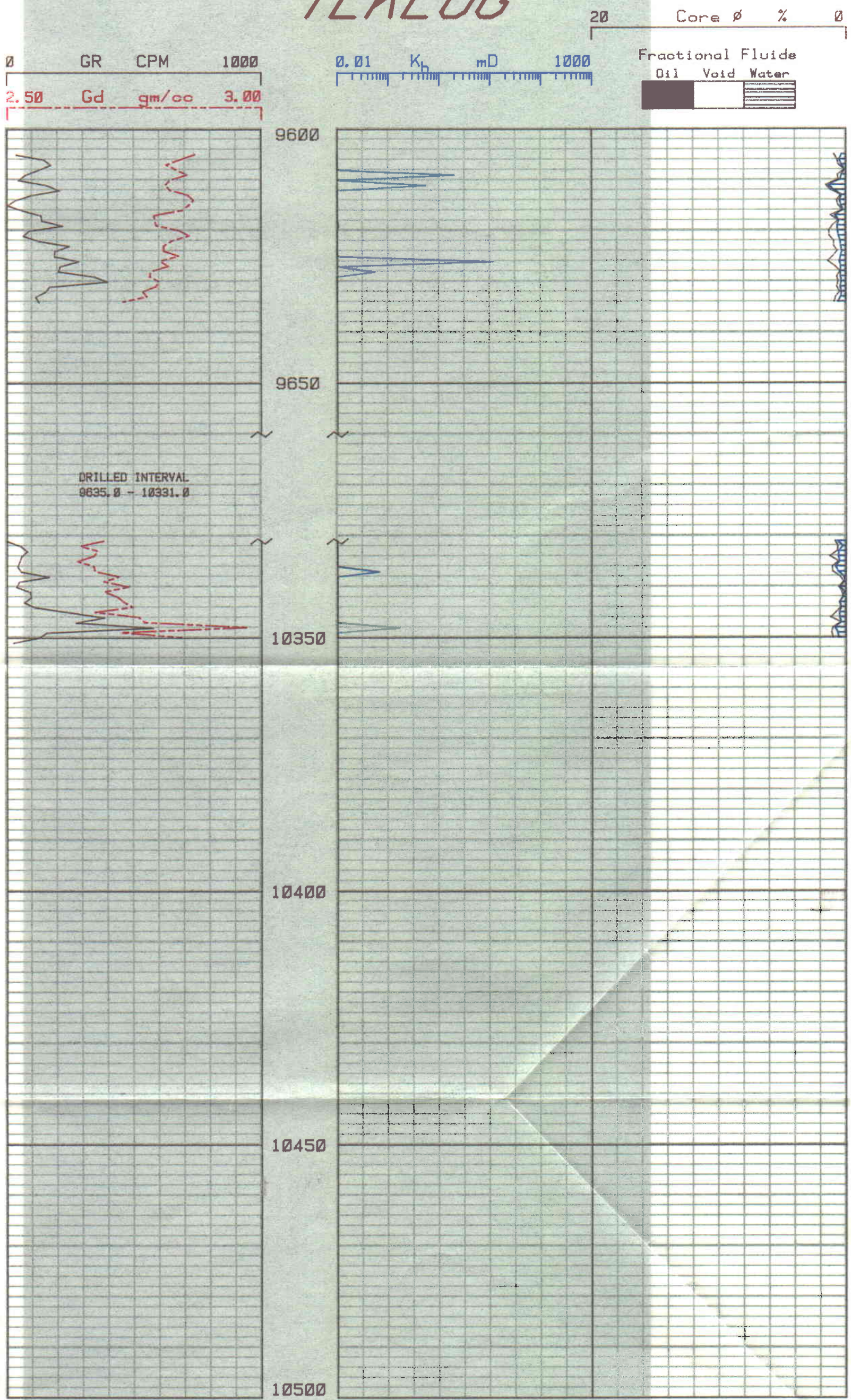
360 Wakara Way, SLC Utah 84108 (801) 584-2480

SOHIO PETROLEUM COMPANY
Red Knoll #33-B

TEKLOG

07 Apr 1983
TTCS No. 325



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WELL SITE GEOLOGY—WELL LOGGING
2450 INDUSTRIAL BLVD.
GRAND JUNCTION, COLORADO 81501

PHONE:
(303) 243-3044

LEASE RED KNOLL WELL NO. RED KNOLL 33-B COUNTY/PARISH

TYPE OF SURVEY MAGNETIC CORRECTIONS DATE

SUPERVISOR OBJECTIVE SHEET 1 OF 1

DOG LEG	MEASURED DEPTH	COURSE LENGTH	DRIFT ANGLE	VERTICAL DEPTH	TRUE VERTICAL DEPTH	VERTICAL SECTION	SECT'N DIFF.	COURSE DEVIAT'N	DRIFT DIRECTION	D. D.	COORDINATE DIFFERENCES NORTH	SOUTH	EAST	WEST	RECTANGULAR COORDINATES NORTH	SOUTH	EAST	WEST
	2449				2448 45				S 50 E									S21° 48"E
	2535	86	2½	85 91	2534 37			92	S 53 E				73		38 27	15 36	41	S26° 14"E
	2629	94	"	93 91	2628 28			4 1	S 65 E			1 73	3 71		38 82	19 07	43	25
12/23	2721	92	"	91 91	2720 19			4 0	S 85 E			35	3 93		40 55	23 00	47	S29° 44"E
	2815	94	2 3/4	93 89	2814 08			4 5	S 75 E			1 16	4 35		40 90	27 35	49	S33° 46°E
	2901	86	3	85 88	2899 96			4 5	S 79 E			86	4 42		42 06	31 77	53	S37° 6"E
12/24	2994	93	3	92 87	2992 83			4 9	S 81 E			77	4 84		42 92	36 61	56	S40° 28"E
	3119	125	2 3/4	124 86	3117 69			6 0	S 85 E			52	5 98		43 69	42 59	61	S44° 16"E
12/25	3237	118	3	117 84	3235 53			6 2	S 85 E			54	6 18		44 23	48 77	66	S47° 47"E
12/26	3334	97	2 3/4	96 89	332 42			4 6	90 E				4 6		44 23	53 37	69	S50° 32"E
12/27	3421	87	3	86 88	3419 30			4 5	S 85 E			39	4 49		44 62	57 86	73	S52° 36"E
"	3512	91	2 3/4	90 89	3510 19			4 4	N 89 E		08		4 40		44 54	62 26	77	S54° 39"E
	3606	94	3 1/4	93 85	3604 04			5 3	S 85 E			47	5 28		45 01	67 54	81	S56° 32"E
12/28	3666	60	3	59 92	3663 96			3 1	N 85 E		27		3 90		44 74	71 44	84	S57° 56"E
12/29	3762	96	3	95 87	3759 83			5 0	N 85 E		43		4 98		44 31	76 42	88	S59° 53"E
12/30	3877	115	3	114 84	3874 67			6 0	N 85 E		52		5 98		43 79	82 40	93	S62° 1"E
12/31	3999	122	3¼	121 80	3996 47			6 9	S 87 #			36	6 89		44 15	89 29	100	S63° 41"E

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2450 INDUSTRIAL BLVD.
GRAND JUNCTION, COLORADO 81501

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LEASE RED KNOLL WELL NO. 33-B COUNTY/PARISH

TYPE OF SURVEY MAGNETIC CORRECTIONS DATE

SUPERVISOR OBJECTIVE SHEET 2 OF 11

DOG LEG 1983	MEASURED DEPTH	COURSE LENGTH	DRIFT ANGLE	VERTICAL DEPTH	TRUE VERTICAL DEPTH	VERTICAL SECTION	SECT'N DIFF.	COURSE DEVIAT'N	DRIFT DIRECTION	D. D.	COORDINATE DIFFERENCES NORTH	SOUTH	EAST	WEST	RECTANGULAR COORDINATES NORTH	SOUTH	EAST	WEST
1/1/	4060	61	3 3/4	60 86	4057 34			3 9	N 85 E		34	55	389		43 81	9318	103 S64°49"E	
	4155	95	3½	94 82	4152 16			5 7	N 89 E		10		570		43 71	9888	108 S66°25"E	
1/2	4215	60	3½	59 88	4212 05			3 7	N 89 E		06		370		43 65	10258	111 S66°57"E	
	4308	93	3½	92 83	4304 88			5 7	S 88 E			20	570		43 85	10828	117 S67°58"E	
1/4	4432	124	3 3/4	123 73	4428 61			8 11	N 85 E		71		808		43 14	11636	124 S69°40"E	
	4525	93	4	92 77	4521 28			6 49	90 E				649		43 14	12285	130 S70°41"E	
1/6	4567	42	4	41 90	4563 28			2 93	N 89 E		05		293		43 09	12578	133 S71°04"E	
	4647	80	4	79 80	4643 08			5 58	N 89 E		10		558		42 99	13136	138 S71°49"E	
1/8	4708	61	4	60 85	4703 93			4 25	90 E				425		42 99	13561	142 S72°46"E	
1/9	4801	93	4¼	92 74	4796 67			6 89	N 84 E		72		685		42 27	14246	148 59 S73°48"E	
1/10	4894	93	4	92 77	4889 44			6 49	N 80 E		1 12		639		41 15	14885	154 43 S74°30"E	
	4985	91	4	90 78	4980 22			6 35	N 85 E		55		632		40 59	15518	160 40 S75°31"E	
1/11	5079	94	4	93 77	5073 99			6 55	N 83 E		80		650		39 79	16168	166 50 S76°10"E	
1/12	5150	71	4	70 83	5144 82			4 95	N 83 E		60		491		39 19	16659	171 14 S76°46"E	
	5251	101	4	100 75	5245 47			7 04	N 79 E		1 34		691		37 84	173 50	177 58 S77°41"E	
1/15	5343	92	4	91 77	5337 35			6 42	N 73 E		1 88		614		35 96	179 64	183 20 S78°40"E	

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Rocky Mountain Geo-Engineering Co.

WELL SITE GEOLOGY—WELL LOGGING
2450 INDUSTRIAL BLVD.
GRAND JUNCTION, COLORADO 81501

PHONE:
(303) 243-3044

COMPANY: SUNTO PETROLEUM FIELD: WIL JOB NO.:

LEASE: RED KNOLL WELL NO.: 33-B COUNTY/PARISH:

TYPE OF SURVEY: MAGNETIC CORRECTIONS: DATE:

SUPERVISOR: OBJECTIVE: SHEET 3 OF 11

DOG LEG 1983	MEASURED DEPTH	COURSE LENGTH	DRIFT ANGLE	VERTICAL DEPTH	TRUE VERTICAL DEPTH	VERTICAL SECTION	SECT'N DIFF.	COURSE DEVIAT'N	DRIFT DIRECTION	D. D.	COORDINATE DIFFERENCES NORTH	SOUTH	EAST	WEST	RECTANGULAR COORDINATES NORTH	SOUTH	EAST	WEST
1/16	5436	93	4¼	92 74	5430 09			6 89	N 65 E		2 91		6 24			33 05	185 88	188 79 S79°55"E
	5529	93	4½	92 71	5522 80			7 30	N 63 E		3 31		6 50			29 74	192 38	194 66 S81°13"E
1/18	5621	92	4½	91 71	5614 52			7 22	N 62 E		3 39		6 37			26 35	198 75	200 49 S82°26"E
1/19	5652	31	4½	30 90	5645 42			2 43	N 61 E		1 18		2 13			25 17	200 88	202 45 S82°52"E
1/20	5732	80	4½	79 75	5725 17			6 28	N 60 E		3 14		5 44			22 03	206 32	207 49 S83°54"E
	5838	106	4 3/4	105 63	5830 81			8 78	N 55 E		5 04		7 19			16 99	213 51	214 18 S85°27"E
1/21	5916	78	5	77 70	5908 51			6 80	N 53 E		4 09		5 43			12 90	218 94	219 32 S86°38"E
	5991	75	5	74 71	5983 22			6 53	N 52 E		4 02		5 15			8 88	224 09	224 27 S87°44"E
1/23	6071	80	5¼	79 66	6062 88			7 32	N 47 E		4 99		5 35			3 89	229 44	229 47 S89°0"E
1/24	6164	93	5+	92 65	6155 53			8 11	N 54 E		4 77		6 56		88		236 00	236 N89°47"E
1/25	6257	93	5+	92 65	6248 18			8 11	N 52 E		4 99		6 39		5 87		242 39	242 46 N88°37"E
1/27	6355	98	5	97 63	6345 81			8 54	N 54 E		5 02		6 91		13 89		249 30	249 69 N86°49"E
	6464	109	5¼	108 54	6454 35			9 97	N 49 E		6 54		7 52		20 43		256 82	257 63 N85°27"E
1/28	6536	72	5¼	71 70	6526 05			6 59	N 55 E		3 78		5 40		24 21		262 22	263 34 N84°43"E
	6587	51	5¼	50 79	6576 84			4 67	N 48 E		3 12		3 47		27 33		265 69	267 09 N84°8"E
	6618	31	5½	30 86	6607 70			2 97	N 50 E		1 91		2 28		29 24		267 96	269 55 N83°46"E

WELL SITE GEOLOGY—WELL LOGGING
2450 INDUSTRIAL BLVD.
GRAND JUNCTION, COLORADO 81501

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LEASE RED KNOLL WELL NO. 33-8 COUNTY/PARISH

TYPE OF SURVEY MAGNETIC CORRECTIONS DATE

SUPERVISOR OBJECTIVE SHEET 4 OF 11

DOG LEG	MEASURED DEPTH	COURSE LENGTH	DRIFT ANGLE	VERTICAL DEPTH	TRUE VERTICAL DEPTH	VERTICAL SECTION	SECT'N DIFF.	COURSE DEVIAT'N	DRIFT DIRECTION	D. D.	COORDINATE DIFFERENCES NORTH	SOUTH	EAST	WEST	RECTANGULAR COORDINATES NORTH	SOUTH	EAST	WEST
	6648	30	5 3/4	29 85	6637 55			3 00	N 50 E		1 93		2 30		31 17		270 26	272 05 N83°25"E
1/29	6679	31	5½	30 86	6668 41			2 97	N 50 E		1 91		2 28		33 08		272 54	274 54 N83°0"E
	6710	31	5½	30 86	6699 27			2 97	N 47 E		2 03		2 17		35 11		274 71	276 94 N82°43"E
1/30	6741	31	5½	30 86	6730 73			2 97	N 50 E		1 91		2 28		37 02		276 99	279 45 N82°23"E
	6802	61	6	60 66	6790 79			6 38	N 50 E		4 10		4 89		41 12		281 88	284 86 N81°42"E
	6834	32	6	31 82	6822 61			3 34	N 46 E		2 32		2 40		43 44		284 28	287 58 N80°17"E
2/1	6865	31	5 3/4	30 84	6853 45			3 10	N 48 E		2 07		2 30		45 51		286 58	290 17 N80°59"E
	6897	32	5½	31 85	6885 30			3 07	N 48 E		2 05		2 28		47 56		288 86	292 75 N80°39"E
2/2	6928	31	5 3/4	30 84	6916 14			NO DIRECTION										N80°32"E
2/3	6959	31	5 3/4	30 84	6946 98			3 10	N 44 E		2 23		2 30		49 79		291 16	295 39 N80°18"E
	6991	32	5 3/4	31 84	6978 82			3 21	N 49 E		2 11		2 42		51 90		293 58	298 13 N79°58"E
	7022	31	5 3/4	30 84	7009 66			3 10	N 49 E		2 03		2 34		53 93		295 92	300 79 N79°40"E
	7053	31	6	30 83	7040 49			3 24	N 47 E		2 21		2 37		56 14		298 29	303 53 N79°20"E
2/4	7084	31	6	30 83	7071 32			3 24	N 48 E		2 17		2 41		58 31		300 70	306 30 N79°18"E
	7114	30	5 3/4	29 85	7101 17			3 00	N 49 E		1 97		2 26		60 28		302 96	308 90 N78°45"E
	7145	31	6	30 83	7132 00			3 24	N 44 E		2 33		2 25		62 61		305 21	311 57 N78°25"E

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GRAND JUNCTION, COLORADO 81501

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LEASE RED KNOLL WELL NO. 33-B COUNTY/PARISH

TYPE OF SURVEY MAGNETIC CORRECTIONS DATE

SUPERVISOR OBJECTIVE SHEET 5 OF 11

DOG LEG	MEASURED DEPTH	COURSE LENGTH	DRIFT ANGLE	VERTICAL DEPTH	TRUE VERTICAL DEPTH	VERTICAL SECTION	SECT'N DIFF.	COURSE DEVIAT'N	DRIFT DIRECTION	D. D.	COORDINATE DIFFERENCES NORTH	SOUTH	EAST	WEST	RECTANGULAR COORDINATES NORTH	SOUTH	EAST	WEST
	7161	16	6	15 91	7147 91			1 67	N 46 E		1 16		1 20		63 77		306 41	312 97 / N78°14"E
2/5	7192	31	5 3/4	30 84	7178 75			3 10	N 48 E		2 07		2 30		65 84		308 71	315 65 / N77°58"E
	7237	45	5 3/4	44 77	7223 52			4 51	N 42 E		3 35		3 02		69 19		311 73	319 31 / N77°29"E
	7269	32	6	31 82	7255 34			3 34	N 47 E		2 28		2 44		71 47		314 17	322 20 / N77°11"E
2/6	7300	31	6	30 83	7286 17			3 24	N 46 E		2 25		2 33		73 72		316 50	324 97 / N76°53"E
	7330	30	6	29 83	7316 00			3 14	N 44 E		2 26		2 18		75 98		318 68	327 61 / N76°35"E
	7360	30	6¼	29 82	7345 82			3 27	N 43 E		2 39		2 23		78 37		320 91	330 34 / N76°17"E
2/7	7392	32	6	31 82	7377 64			3 34	N 41 E		2 52		2 19		80 89		323 10	333 07 / N75°56"E
	7424	32	6¼	31 81	7409 45			3 48	N 43 E		2 54		2 37		83 43		325 47	335 99 / N75°37"E
	7455	31	6¼	30 82	7440 27			3 37	N 45 E		2 38		2 38		85 81		327 85	338 89 / N75°20"E
2/8	7486	31	6¼	30 82	7471 09			3 37	N 40 E		2 58		2 17		88 39		330 02	341 65 / N75°0"E
	7518	32	6¼	31 81	7502 90			NO DIRECTION RUN										
	7548	30	6¼	29 82	7532 72			3 27	N 46 E		2 27		2 35		90 66		332 37	344 51 / N74°44"E
2/9	7578	30	6 3/4	29 79	7562 51			3 53	N 45 E		2 49		2 50		93 15		334 87	347 58 / N74°27"E
	7653	75	6 3/4	74 48	7636 99			8 81	N 45 E		6 23		6 23		99 38		341 10	355 28 / N73°46"E
2/14	7684	31	6½	30 80	7667 79			3 51	N 45 E		2 48		2 48		101 86		343 58	358 36 / N73°29"E

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LEASE RED KNOLL WELL NO. 33 - B COUNTY/PARISH

TYPE OF SURVEY MAGNETIC CORRECTIONS DATE

SUPERVISOR OBJECTIVE SHEET 6 OF 11

DOG LEG	MEASURED DEPTH	COURSE LENGTH	DRIFT ANGLE	VERTICAL DEPTH	TRUE VERTICAL DEPTH	VERTICAL SECTION	SECT'N DIFF.	COURSE DEVIAT'N	DRIFT DIRECTION	D. D.	COORDINATE DIFFERENCES NORTH	SOUTH	EAST	WEST	RECTANGULAR COORDINATES NORTH	SOUTH	EAST	WEST
2/14	7746	62	7	61 54	7729 33			7 56	N 51 E		4 76		5 87		106 62		349 46	365 36 N73°0"E
	7776	30	7	29 78	7759 11			3 66	N 51 E		2 30		2 34		108 92		352 30	368 75 N72°49"E
2/15	7307	31	7¼	30 75	7789 86			3 91	N 51 E		2 46		3 04		111 38		355 34	372 39 N72°36"E
2/16	7839	32	7½	31 73	7821 59			4 18	N 48 E		2 80		3 11		114 18		358 45	376 20 N72°20"E
2/17	7886	47	7½	46 60	7868 19			6 13	N 46 E		4 26		4 41		118 44		362 86	381 70 N71°55"E
2/18	7980	94	7½	93 20	7961 39			12 27	N 44 E		8 83		8 52		127 27		371 38	392 58 N71°05"E
2/19	8042	62	7¼	61 50	8022 89			7 82	N 46 E		5 43		5 63		132 70		377 01	399 70 N70°36"E
2/20	8134	92	7¼	91 26	8114 15			11 61	N 44 E		8 35		8 06		141 05		385 07	410 01 N69°52"E
	8229	95	7	94 29	8208 44			11 58	N 43 E		8 47		7 90		149 52		392 97	420 46 N69°10"E
2/22	8322	93	7¼	92 26	8300 70			11 74	N 44 E		8 45		8 16		157 97		401 13	431 13 N68°30"E
	8414	92	7¼	91 26	8391 96			11 61	N 43 E		8 49		7 92		166 46		409 05	441 64 N67°51"E
2/23	8508	94	7¼	93 25	8485 21			11 86	N 41 E		8 95		7 78		175 41		416 83	452 27 N67°10"E
	8601	93	7	92 31	8577 52			11 33	N 41 E		8 55		7 43		183 96		424 26	462 46 N66°33"E
2/25	8697	96	6½	95 38	8672 90			10 87	N 41 E		8 20		7 13		192 16		431 39	472 28 N65°59"E
2/26	8789	92	6½	91 41	8764 31			10 41	N 38 E		8 20		6 41		200 36		437 80	481 50 N65°24"E
	8883	94	6	93 49	8857 80			9 83	N 33 E		8 24		5 35		208 60		443 15	489 83 N64°47"E

WELL SITE GEOLOGY—WELL LOGGING
2450 INDUSTRIAL BLVD.
GRAND JUNCTION, COLORADO 81501

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(303) 243-3044

COMPANY _____ FIELD _____

LEASE RED KNOLL WELL NO. 33-B COUNTY/PARISH _____

TYPE OF SURVEY _____ MAGNETIC CORRECTIONS _____ DATE _____

SUPERVISOR _____ OBJECTIVE _____ SHEET 7 OF 11

DOG LEG 1983	MEASURED DEPTH	COURSE LENGTH	DRIFT ANGLE	VERTICAL DEPTH	TRUE VERTICAL DEPTH	VERTICAL SECTION	SECT'N DIFF.	COURSE DEVIAT'N	DRIFT DIRECTION	D. D.	COORDINATE DIFFERENCES NORTH	SOUTH	EAST	WEST	RECTANGULAR COORDINATES NORTH	SOUTH	EAST	WEST
2/27	8944	61	5½	60 72	8918 52			5 85	N 26 E		5 26		2 56		213 86		445 71	494 36 N64°22"E
	9030	86	5	85 67	9004 19			7 50	N 13 E		7 31		1 69		221 17		447 40	499 13 N63°41"E
	9060	30	4 3/4	29 90	9034 09			2 48	N 6 E		2 47		26		223 64		447 66	500 43 N63°27"E
3/1	9092	32	4 3/4	31 89	9065 98			2 65	N 2 E		2 65		09		226 29		447 75	501 71 N63°11"E
	9124	32	4 3/4	31 89	9097 87			2 65	N 1 E		2 65			05	228 94		447 70	502 84 N62°55"E
	9155	31	4½	30 90	9128 77			2 43	N 5 W		2 42			21	231 36		447 49	503 81 N62°39"E
3/2	9186	31	4½	30 90	9159 67			2 43	N 9 W		2 40			38	233 76		447 11	504 52 N62°24"E
	9217	31	4 3/4	30 80	9190 56			2 57	N 13 W		2 50			58	236 26		446 53	505 18 N62°07"E
	9248	31	4 3/4	30 80	9221 36			2 57	N 17 W		2 46			75	238 72		445 78	505 75 N61°49"E
	9278	30	4 3/4	29 90	9251 26			2 48	N 21 W		2 32			89	241 04		444 89	506 N61°33"E
3/3	9310	32	4 3/4	31 89	9283 15			2 65	N 27 W		2 36			1 20	243 40		443 69	506 08 N61°15"E
	9341	31	5	30 88	9314 03			2 70	N 32 W		2 29			1 43	245 69		442 26	505 90 N60°57"E
	9372	31	5	30 88	9344 91			2 70	N 37 W		2 16			1 62	247 85		440 64	505 61 N60°38"E
	9403	31	5 3/4	30 84	9375 75			3 11	N 41 W		2 35			2 04	250 20		438 60	504 93 N60°18"E
3/4	9435	32	6½	31 79	9407 54			3 62	N 49 W		2 37			2 73	252 57		435 87	503 81 N59°54"E
3/5	9465	30	7½	29 76	9437 30			3 79	N 51 W		2 39			2 95	254 96		432 92	502 44 N59°30"E

WELL SITE GEOLOGY—WELL LOGGING
2450 INDUSTRIAL BLVD.
GRAND JUNCTION, COLORADO 81501

PHONE:
(303) 243-3044

LEASE _____ WELL NO. _____ COUNTY/PARISH _____

TYPE OF SURVEY _____ MAGNETIC CORRECTIONS _____ DATE _____

SUPERVISOR _____ OBJECTIVE _____ SHEET 8 OF 11

DOG LEG 1983	MEASURED DEPTH	COURSE LENGTH	DRIFT ANGLE	VERTICAL DEPTH	TRUE VERTICAL DEPTH	VERTICAL SECTION	SECT'N DIFF.	COURSE DEVIAT'N	DRIFT DIRECTION	D. D.	COORDINATE DIFFERENCES NORTH	SOUTH	EAST	WEST	RECTANGULAR COORDINATES NORTH	SOUTH	EAST	WEST
	9497	32	7½	31 73	9469 03			4 18	N 55 W		2 40			3 42	257 36		429 50	500 72 N59°04"E
	9529	32	8	31 69	9500 72			4 45	N 54 W		2 62			3 60	259 98		425 90	498 97 N58°36"E
3/7	9567	38	8 3/4	37 56	9538 28			5 78	N 56 W		3 23			4 79	263 21		421 11	496 65 N57°59"E
	9593	26	8½	25 71	9563 99			3 84	N 58 W		2 03			3 26	265 24		417 85	494 98 N57°35"E
3/9	9624	31	8½	30 66	9594 65			4 58	N 56 W		2 56			3 80	267 80		414 05	493 14 N57°10"E
	9654	30	8 3/4	29 65	9624 30			4 56	N 59 W		2 35			3 91	270 15		410 14	491 18 N56°37"E
3/10	9686	32	8 3/4	31 63	9655 93			4 87	N 59 W		2 51			4 17	272 66		405 97	489 11 N56°06"E
	9716	30	9	29 63	9685 56			4 59	N 59 W		2 42			4 02	275 08		401 95	487 15 N55°36"E
	9749	33	9½	32 55	9718 11			5 45	N 59 W		2 81			4 67	277 89		397 28	484 89 N55°01"E
3/11	9777	28	9½	27 62	9745 73			4 62	N 60 W		2 31			4 00	280 20		393 28	482 98 N54°31"E
3/12	9807	30	10	29 54	9775 27			5 21	N 61 W		2 53			4 56	282 73		388 72	480 69 N53°58"E
	9846	39	10½	38 35	9813 62			7 11	N 60 W		3 56			6 16	286 29		382 56	477 87 N53°11"E
	9876	30	11 3/4	29 37	9842 99			6 11	N 64 W		2 68			5 49	288 97		377 07	475 07 N52°32"E
3/13	9908	32	13	31 18	9874 17			7 20	N 65 W		3 04			6 53	292 01		370 54	471 83 N51°45"E
	9939	31	15	29 94	9904 11			8 02	N 65 W		3 39			7 27	295 40		363 27	468 32 N50°52"E
	9970	31	16	29 80	9933 91			8 54	N 68 W		3 20			7 92	298 60		355 35	464 22 N49°57"E

WELL SITE GEOLOGY—WELL LOGGING
2450 INDUSTRIAL BLVD.
GRAND JUNCTION, COLORADO 81501

PHONE:
(303) 243-3044

LEASE RED KNOLL WELL NO. 33-B COUNTY/PARISH RICH, UT

TYPE OF SURVEY _____ MAGNETIC CORRECTIONS _____ DATE _____

SUPERVISOR _____ OBJECTIVE _____ SHEET 9 OF 11

DOG LEG	MEASURED DEPTH	COURSE LENGTH	DRIFT ANGLE	VERTICAL DEPTH	TRUE VERTICAL DEPTH	VERTICAL SECTION	SECT'N DIFF.	COURSE DEVIAT'N	DRIFT DIRECTION	D. D.	COORDINATE DIFFERENCES NORTH	SOUTH	EAST	WEST	RECTANGULAR COORDINATES NORTH	SOUTH	EAST	WEST
3/14	9970	31	18	29 48	9963 39			9 58	N 70 W		3 28			9 00	301 88		346 35	459 50 N48°55"E
3/16	10079	78	23	71 80	10035 19			30 48	N 70 W		10 42			28 64	312 30		317 71	445 57 N45°29"E
3/17	10111	32	23½	29 35	10064 54			12 76	N 70 W		4 36			11 99	316 66		305 72	440 23 N43°59"E
3/18	10142	31	23¼	28 48	10092 48			12 24	N 70 W		4 19			11 50	320 85		294 22	435 36 N42°31"E
3/19	10173	31	23½	28 43	10120 91			12 36	N 70 W		4 23			11 61	325 08		282 61	430 77 N41°0"E
	10214	41	23	37 74	10158 65			16 02	N 65 W		6 77			14 52	331 85		268 09	426 77 N38°55"E
3/20	10246	32	22	29 67	10188 32			11 99	N 57 W		6 53			10 06	338 38		258 03	425 64 N37°19"E
3/21	10286	40	22½	36 96	10225 28			15 31	N 61 W		7 42			13 39	345 80		244 64	423 71 N35°16"E
	10391	123	22½	113 64	10338 92			47 07	N 68 W		17 63			43 64	363 43		201 00	415 25 N28°57"E
3/25	10455	64	23	58 91	10397 83			25 01	N 69 W		8 96			23 35	372 39		177 65	412 65 N25°30"E
	10518	63	23½	57 77	10455 60			25 12	N 69 W		9 00			23 45	381 39		154 20	411 63 N22°0"E
3/26	10581	63	24½	57 33	10512 93			26 13	N 68 W		9 79			24 23	391 18		129 97	412 19 N18°22"E
3/27	10658	77	24½	70 07	10583 00			31 93	N 68 W		11 96			29 60	403 14		100 37	415 47 N13°58"E
3/28	10727	69	24½	62 79	10645 79			NO DIRECTION - NO MONEL DC IN HOLE										
4/2	10792	65	25	58 91	10704 70			27 47	N 68 W		10 29			25 47	413 43		74 90	420 24 N10°16"E
	10823	31	25½	27 98	10732 68			13 35	N 69 W		4 78			12 46	418 21		62 44	423 26 N8°29"E

WELL SITE GEOLOGY—WELL LOGGING
2450 INDUSTRIAL BLVD.
GRAND JUNCTION, COLORADO 81501

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LEASE RED KNOLL WELL NO. 33-B COUNTY/PARISH

TYPE OF SURVEY MAGNETIC CORRECTIONS DATE

SUPERVISOR OBJECTIVE SHEET 10 OF 11

DOG LEG 1983	MEASURED DEPTH	COURSE LENGTH	DRIFT ANGLE	VERTICAL DEPTH	TRUE VERTICAL DEPTH	VERTICAL SECTION	SECT'N DIFF.	COURSE DEVIAT'N	DRIFT DIRECTION	D. D.	COORDINATE DIFFERENCES NORTH	SOUTH	EAST	WEST	RECTANGULAR COORDINATES NORTH	SOUTH	EAST	WEST
	10854	31	26	27 86	10760 54			13 59	N 69 W		4 87			12 69	423 08		49 75	425 78 N6° 42"E
	10887	33	27	29 40	10789 94			14 98	N 69 W		5 37			13 99	428 45		35 76	430 33 N4° 46"E
	10955	68	29	59 47	10849 41			32 97	N 70 W		11 28			30 98	439 73		4 78	444 13 N0° 37"E
	10994	39	29½	33 94	10883 35			19 20	N 75 W		4 97			18 55	444 70	446 65		13 77 N1° 46"W
	11026	32	30½	27 57	10910 92			16 24	N 76 W		3 93			15 76	448 63	449 51		29 53 N3° 46"W
4/10	11122	96	31½	81 85	10992 77			50 16	N 76 W		12 13			48 67	460 76	468 11		78 20 N9° 37"W
	11153	31	32	26 29	11019 06			16 43	N 77 W		3 70			16 01	464 46	473 90		94 21 N11° 28"W
4/11	11216	63	32	53 43	11072 49			33 38	N 68 W (INCORRECT DIRECTION)									
	11247	31	32¼	26 22	11098 71			16 53	N 76 W		4 00			16 04	468 46	481 62		110 25 N13° 14"W
4/12	11297	50	33	41 93	11140 64			27 23	N 75 W		7 05			23 30	475 51	494 90		136 55 N16° 01"W
	11328	31	33	26 00	11166 64			16 88	N 79 W		3 22			16 57	478 73	502 71		153 12 N17° 44"W
	11359	31	33½	25 85	11192 49			17 11	N 73 W		5 00			16 36	483 73	512 78		169 48 N19° 18"W
4/13	11389	30	34	24 87	11217 36			16 78	N 72 W		5 18			15 96	488 92	522 93		185 44 N20° 46"W
	11454	65	35	53 24	11270 61			37 28	N 77 W		8 39			36 32	497 31	544 51		221 76 N24° 02"W
4/14	11514	60	36½	48 23	11318 84			35 69	N 74 W		9 84			34 30	507 14	568 13		256 07 N26° 47"W
4/15	11570	56	38	44 13	11362 97			34 48	N 74 W		9 50			33 14	516 64	592 07		289 21 N29° 14"W

WELL SITE GEOLOGY—WELL LOGGING
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LEASE RED KNOLL WELL NO. 33-B COUNTY/PARISH

TYPE OF SURVEY MAGNETIC CORRECTIONS DATE

SUPERVISOR OBJECTIVE SHEET 11 OF 11

DOG LEG 1983	MEASURED DEPTH	COURSE LENGTH	DRIFT ANGLE	VERTICAL DEPTH	TRUE VERTICAL DEPTH	VERTICAL SECTION	SECT'N DIFF.	COURSE DEVIAT'N	DRIFT DIRECTION	D. D.	COORDINATE DIFFERENCES NORTH	SOUTH	EAST	WEST	RECTANGULAR COORDINATES NORTH	SOUTH	EAST	WEST
4/16	11635	65	39	50 51	11413 48			40 91	N 76 W		9 90			39 69	526 54	620 82		328 90 N31°59"W
	11694	59	40	45 20	11458 68			37 92	N 75 W		9 82			36 63	536 36	649 20		365 53 N34°16"
	11757	63	40½	47 91	11506 59			40 92	N 78 W		8 51			40 03	544 87	679 42		405 56 N36°39"W
4/19	11820	63	41	47 55	11554 14			41 33	N 78 W		8 59			40 43	553 46	710 99		445 99 N38°51"W
4/20	11944	124	43	90 69	11644 83			84 57	N 79 W		16 14			83 02	569 69	777 42		529 01 N42°52"W
4/22	12009	64	44	46 04	11690 87			44 46	N 78 W		9 24			43 49	578 93	814 25		572 50 N44°40
4/23	12075	67	45½	46 96	11737 83			47 79	N 81 W		7 48			47 20	595 41	859 31		619 70 N46°09"W
	12137	62	46½	42 68	11780 51			44 97	N 79 W		8 58			44 14	603 99	897 53		663 84 N47°42"W
4/24	12199	62	48	41 49	11822 00			46 07	N 78 W		9 58			45 06	613 57	937 64		708 90 N49°07"W
4/30	12316	117	50	75 21	11897 21			89 63	N 79 W		17 10			87 98	630 67	1016 26		796 88 N51°38"W
5/1	12378	62	50	39 85	11937 06			47 49	N 75 W		12 29			45 87	642 96	1060 00		842 75 N52°39
	12409	31	50	19 93	11956 99			23 75	N 73 W		6 94			22 71	649 90	1082 25		865 46 N53°06"W
	12440	31	50	19 93	11976 92			23 75	N 71 W		7 73			22 46	657 63	1105 05		887 92 N53°28"W
5/8	12539	99	50	63 64	12040 56			75 84	N 72 W		23 44			72 13	681 07	1177 06		960 05 N54°39"W
5/9	12630	91	49½	59 10	12099 66			69 20	N 64 W		30 34			62 20	711 41	1245 51		1022 25 N55°09"W
5/10	12723	93	50	59 78	12159 44			71 24	N 69 W		25 53			66 51	736 94	1314 68		1088 76 N55°54"W

COMPANY NAME: SOHIO PETROLEUM MUD RECORD: 1 OF 10 WELL NAME RED KNOLL 33-B

DATE	DEPTH	WEIGHT	MUD GRADIENT	FUNNEL VIS	PLASTIC VIS	YIELD POINT	GEL STRENGTH	PH	FILTRATE API	CAKE	ALKALINITY FILTRATE	CHLORIDE PPM	CALCIUM PPM	SAND % CONTENT	SOLIDS % CONTENT	OIL % CONTENT	WATER % CONTENT	% KCL	% CHROMATE
11/25/82	60	8.6		45	11	16	4/7	10.5	21	3		100	--	--	2.2	---	97.8		
11/26	624	8.9		44	9	21	8/11	11.0	23	3	.55/1.0	150	TR	1.5	4.3		95.7		
11/27	927	9.4		41	14	17	6/15	10.0	24	3	.4/.8	200	---	1.25	7.0		93.0		
11/28	1140	10.2		45	21	9	3/11	11.0	14.6	3	.2/.3	300	20	1.5	11		89.0		
11/29	1402	9.8		40	14	8	3/12	10.3	12.8	1	"	"	30	1.5	10		88.5		
11/30	1651	9.7		47	18	12	3/16	10.1	10.4	2	.01/.1	150	40	1.5	10.5		88		
12/1	1820	9.3		38	11	5	2/12	9.5	10.8	2	.3/.45	100	28	1	11		86		
12/2	1999	9.3		37	10	5	3/12	11.5	14	2	.65/.85	350	TR	TR	6		94		
12/3	2078	9.5		43	14	10	5/15	11	11	1	.2/.4	300	20	TR	4		96		
12/4	2173	9.7		47	18	10	5/17	9.5	10.	1	.1/.25	250	20	"	5.		95		
12/5	2302	9.6		48	10	18	25/52	"	16.4	2	.1/.2	160	"	"	"		"		
12/6	2402	9.7		39	12	8	7/20	"	12.4	"	.4/.6	100	40	"	"		"		
12/7	2501	9.6		45	14	12	11/24	10	10.8	"	1.1/1.4	"	28	"	"		"		
12/8	2515	9.9		41	12	10	10/22	9.5	"	"	.9/1.3	"	"	"	6	1	93		
12/18	2520	9.8		45	"	7	5/15	"	"	"	1.2/2.3	350	"	"	5		95		
12/21	2528	8.8		37	8	"	5/20	11	19.2	"	1.7/2.3	400	"	"	4		96		

COMPANY NAME: SOHIO PETROLEUM MUD RECORD: 2 OF 10 WELL NAME RED KNOLL 33-B

DATE	DEPTH	WEIGHT	MUD GRADIENT	FUNNEL VIS	PLASTIC VIS	YIELD POINT	GEL STRENGTH	PH	FILTRATE API	CAKE	ALKALINITY FILTRATE	CHLORIDE PPM	CALCIUM PPM	SAND % CONTENT	SOLIDS % CONTENT	OIL % CONTENT	WATER % CONTENT	% KCL	% CHROMATE
12/22/82	2562	8.7		40	10	5	5/22	11.6	9.6	1	1.5/1.9	375	TR	TR	3.0		97.0		
12/23	2771	8.7		43	11	7	5/23	11.8	6.4	1	1.35/1.85	"	"	"	"		"		
12/24	3083	"		47	15	10	4/18	"	"	"	.65/.95	"	"	"	3.4		96.6		
12/25	3345	8.8		43	10	5	4/20	9.6	8.4	"	.05/.15	"	280	TR	"		"		
12/26	3464	"		47	9	13	10/32	10.8	7.6	"	.15/.3	350	200	"	"		"		
12/27	3554	"		"	11	7	3/12	10.0	6.8	"	"	300	100	"	"		"		
12/28	3793	"		41	17	10	4/18	10.2	6.4	"	.8/1.7	350	36	"	5.0		95.0		
12/29	3892	"		38	10	5	1/8	9.5	6.8	"	.7/1.5	"	28	"	2.0		98.0		
12/30	4021	"		40	12	6	3/12	"	7.6	"	.5/.9	"	"	"	3.0		97.0		
12/31	4127	"		41	13	7	5/14	9.5	"	"	.4/.7	"	"	"	"		"		
1/1/83	4178	"		42	15	9	5/15	9.2	"	"	.5/.7	"	"	"	2.0		98.0		
1/2	4264	8.7		"	13	7	4/14	9.5	8.0	"	.4/.6	"	"	"	"		"		
1/3	4354	"		43	12	6	3/13	"	8.8	"	.2/.4	400	"	"	"		"		
1/4	4482	"		38	10	5	2/8	9.0	10.8	"	.2/.4	"	"	"	"		"		
1/5	4547	"		41	"	8	5/20	10.5	8.4	"	.5/.8	"	32	"	4.0		96.0		
1/6	4617	"		45	"	10	8/32	10.7	8.8	"	.8/1.1	"	"	"	3.0		97.0		

COMPANY NAME: SOHIO PETROLEUM MUD RECORD: 3 OF 10 WELL NAME RED KNOLL 33-B

DATE	DEPTH	WEIGHT	MUD GRADIENT	FUNNEL VIS	PLASTIC VIS	YIELD POINT	GEL STRENGTH	PH	FILTRATE API	CAKE	ALKALINITY FILTRATE	CHLORIDE PPM	CALCIUM PPM	SAND % CONTENT	SOLIDS % CONTENT	OIL % CONTENT	WATER % CONTENT	% KCL
1/7/83	4660	8.6		44	11	8	7/32	10.8	8.0	1	.7/1	400	32	TR	1.5		98.5	
1/8	4806	8.7		41	"	"	5/28	11.0	6.8	"	.5/.9	"	"	"	2.0		98	
1/9	4851	"		42	13	7	3/17	10.5	6.4	"	.4/.7	"	"	"	"		"	
1/10	5010	"		43	12	11	4/20	"	6.6	"	.3/.5	"	"	"	"		"	
1/11	5141	"		44	14	10	4/14	10.9	6.0	"	.4/.7	"	"	"	2.8		97.2	
1/12	5198	"		42	14	9	"	10.5	"	"	.35/.5	"	28	"	2.7		97.3	
1/13	5216	8.6		41	13	"	3/10	10.2	5.2	"	.2/.35	"	"	"	3.0	5	92	
1/14	5217	"		39	"	7	4/10	9.5	5.0	"	.1/.2	"	32	"	"	4	93	
1/15	5404	"		41	12	8	4/18	10.4	"	"	.15/.3	"	44	"	2.3	3	94.7	
1/16	5498	"		42	10	10	5/24	9.8	"	"	.1/.15	"	80	"	2.0	3	95	
1/17	5558	"		38	11	7	3/18	10.9	5.6	"	.3/.5	"	32	"	"	2	96	
1/18	5702	"		43	13	7	7/31	10.3	6.8	2	.1/.2	"	104	"	"	"	"	
1/19	5749	8.7		39	11	5	3/20	10.3	6.6	1	"	"	44	"	2.4	"	95.6	
1/20	5845	"		41	"	8	5/27	10.5	7.2	"	.05/.1	"	120	"	3.0	1	96	
1/21	5982	8.6		43	10	"	6/26	10.6	8	2	.1/.15	"	144	"	2.8	--	97.2	
1/22	6079	8.7		39	9	7	4/21	9.7	6.2	1	.1/.2	"	150	"	3.1	--	96.9	

COMPANY NAME: SOHIO PETROLEUM MUD RECORD: 4 OF 10 WELL NAME RED KNOLL 33-B

DATE	DEPTH	WEIGHT	MUD GRADIENT	FUNNEL VIS	PLASTIC VIS	YIELD POINT	GEL STRENGTH	PH	FILTRATE API	CAKE	ALKALINITY FILTRATE	CHLORIDE PPM	CALCIUM PPM	SAND % CONTENT	SOLIDS % CONTENT	OIL % CONTENT	WATER % CONTENT	% KCL	% CHROMATE
1/23/83	6154	8.8		40	11	9	5/22	9.6	6.0	1	.22/.52	350	40	TR	3.5		96.5		
/24	6241	8.7		45	"	10	6/20	10.5	5.2	"	.7/1.3	500	12	"	2.8		97.2		
1/25	6338	"		43	13	9	4/19	11.0	"	"	.9/1.4	400	10	"	"		"		
1/26	6353	"		44	10	10	4/15	"	5.6	"	.95/1.5	"	8	"	"	2	95.2		
1/27	6460	"		41	12	8	3/14	"	6.0	"	.85/1.35	"	16	TR	3.4	"	94.6		
1/28	6602	"		42	13	9	3/13	10.5	"	"	.7/1.2	"	20	"	3.0	"	95.0		
1/29	6732	"		41	"	12	4/13	10.3	6.2	"	.5/.8	"	30	"	3.1	2	94.9		
1/30	6792	"		44	"	10	2/9	9.5	6.0	"	.32/.64	300	36	"	3.3	1	95.7		
1/31	6869	"		43	"	"	3/10	10.0	"	"	.3/.6	"	32	"	4.2	--	95.8		
2/1	6928	"		45	14	11	4/14	10.1	6.2	"	.35/.7	"	"	"	4.0		96		
2/2	6966	"		41	"	12	4/13	9.9	5.4	"	.3/.6	"	28	"	3.0		97		
2/3	7039	8.6		42	13	11	3/10	"	5.2	"	"	"	"	"	2.2		97.8		
2/4	7149	"		44	14	12	3/13	9.7	5.4	"	.1/.25	"	"	"	2.5		97.5		
2/5	7265	"		"	16	11	3/12	9.9	5.6	"	.15/.3	"	"	"	"		"		
2/6	7362	"		46	14	13	4/20	10.3	"	"	"	"	20	"	"		"		
2/7	7445	"		40	10	10	4/18	9.5	6.4	"	.07/.15	250	64	"	"		"		

COMPANY NAME: SOHIO PETROLEUM MUD RECORD: 5 OF 10 WELL NAME RED KNOLL 33-B

DATE	DEPTH	WEIGHT	MUD GRADIENT	FUNNEL VIS	PLASTIC VIS	YIELD POINT	GEL STRENGTH	PH	FILTRATE API	CAKE	ALKALINITY FILTRATE	CHLORIDE PPM	CALCIUM PPM	SAND % CONTENT	SOLIDS % CONTENT	OIL % CONTENT	WATER % CONTENT	% KCL	% CHROMATE
2/8/83	7559	8.6		48	13	12	10/27	10.8	8.0	1	.2/.3	300	44	TR	2.2		97.8		
2/9	7640	8.7		39	12	6	2/12	10.5	7.6	"	.15/.25	250	"	"	2.8		97.2		
2/10	"	8.6		44	12	"	2/14	"	6.8	"	.2/.4	300	48	"	2.2		97.8		
2/12	"	"		38	8	3	1/1	8.5	7.6	"	.05/.3	"	44	"	"		"		
2/13	7684	"		"	"	4	1/5	9.0	8.8	"	.5/.8	500	40	"	"		"		
2/14	7735	8.4		43	10	8	2/10	10.6	14	"	.7/1.3	300	32	"	1.5		98.5		
2/15	7861	8.5		42	13	7	"	"	6.4	"	.5/.7	400	"	"	"		"		
2/16	7914	8.4		"	16	8	2/11	"	6.6	"	.4/.6	"	32	"	1.2		98.8		
2/17	7961	8.5		38	13	6	2/8	10.5	6.8	"	.2/.4	"	32	"	1.5		98.5		
2/18	8035	8.6		43	"	7	2/13	10.6	6.4	"	.3/.4	"	"	"	1.8		98.2		
2/19	8128	"		"	14	9	3/14	10.7	6.8	"	.4/.6	"	20	"	2.0		98.0		
2/20	8203	8.7		46	18	12	3/18	10.6	6.0	"	.5/.7	"	24	"	2.8		97.2		
2/21	8270	"		48	16	11	5/23	11.1	6.4	"	1/1.1	"	28	"	3		97		
2/22	8407	8.8		52	"	13	7/27	"	6.0	"	2.2/4.2	"	32	"	3.5		96.5		
2/23	8554	"		49	17	12	5/24	10.8	"	"	.9/1.9	"	20	"	3.6		96.4		
2/24	8647	"		47	15	11	4/22	"	"	"	.7/1.4	"	"	"	3.5		96.5		

COMPANY NAME: SOHIO PETROLEUM MUD RECORD: 6 OF 10 WELL NAME RED KNOLL 33-8

DATE	DEPTH	WEIGHT	MUD GRADIENT	FUNNEL VIS	PLASTIC VIS	YIELD POINT	GEL STRENGTH	PH	FILTRATE API	CAKE	ALKALINITY FILTRATE	CHLORIDE PPM	CALCIUM PPM	SAND % CONTENT	SOLIDS % CONTENT	OIL % CONTENT	WATER % CONTENT	% KCL
2/25/83	8772	8.8		50	16	12	5/23	10.9	6	1	.2/1.5	400	20	TR	3.6		96.4	
2/26	8885	8.7		48	13	11	8.35	11.0	8	2	.4/.6	"	108	"	2.8		97.2	
2/27	8996	8.7		44	10	10	6.25	"	"	"	.15/.3	"	136	"	3		97	
2/28	9053	"		43	11	7	4/26	11.3	7.4	"	.2/.4	"	96	"	2.6		97.4	
3/1	9139	"		41	"	6	4/21	10.9	7.8	"	"	"	112	"	2.7		97.3	
3/2	9243	8.8		50	16	9	3/21	11.2	5.2	1	.5/.9	"	24	"	3.5		96.5	
3/3	9386	8.7		44	15	10	3/19	10.9	"	"	.4/.7	"	40	"	2.8		97.2	
3/4	9508	8.9		45	16	7	3/20	10.5	5.0	"	.25/.5	"	24	"	4.2		95.8	
3/5	9544	9.0		"	14	9	4/19	10.3	5.2	"	.18/.54	"	28	"	5.0		95.0	
3/6	9605	8.9		44	13	11	"	10.8	"	"	.45/1.2	"	20	"	4.3		95.7	
3/7	9618	8.7		"	"	19	3/18	10.5	"	"	.4/.8	"	44	"	3		97.0	
3/8	9635	8.6		42	14	6	3/15	9.6	"	"	.8/1.5	"	32	"	2.7		97.3	
3/9	9690	8.8		"	12	8	3/16	10.5	"	"	.9/1.5	"	"	"	3.5		96.5	
3/10	9737	8.9		"	17	9	"	10.7	5.0	"	.7/1.4	"	"	"	4.3		95.7	
3/11	9829	8.8		"	13	10	4/17	11.0	"	"	.8/1.7	"	28	"	3.5		96.5	
3/12	9858	"		44	14	9	4/16	10.8	"	"	.6/1.3	"	36	"	"		"	

COMPANY NAME: SOHIO PETROLEUM MUD RECORD: 7 OF 10 WELL NAME RED KNOLL 33-B

DATE	DEPTH	WEIGHT	MUD GRADIENT	FUNNEL VIS	PLASTIC VIS	YIELD POINT	GEL STRENGTH	PH	FILTRATE API	CAKE	ALKALINITY FILTRATE	CHLORIDE PPM	CALCIUM PPM	SAND % CONTENT	SOLIDS % CONTENT	OIL % CONTENT	WATER % CONTENT	% KCL	% CARBONATE
3/13/83	9945	8.8		45	14	11	4/18	11.0	5.0	1	.6/1.3	400	28	TR	3.5		96.5		
3/14	10038	"		"	13	9	4/20	10.9	"	"	.7/1.7	"	"	"	4				
3/15	10052	"		"	15	10	5/22	"	5.1	"	.7/1.3	"	32	"	3.5		96.5		
3/16	10118	"		"	13	11	5/24	11.1	5.0	"	.7/1.4	"	28	"	"		"		
3/17	10149	"		42	"	9	5/22	10.9	5.4	"	.6/1.3	"	"	"	"		"		
3/18	10187	"		48	12	11	7/35	10.8	5.2	"	.6/1.4	"	36	"	"		"		
3/19	10200	"		43	"	8	4/22	10.6	"	"	.5/1.4	"	32	"	"		"		
3/20	10296	8.7		45	10	10	7/25	10.8	5.6	"	.45/1.2	"	"	"	3.0		97		
3/21	10331	"		41	11	5	4/19	10.6	"	"	.5/1.4	"	"	"	2.8		97.2		
3/22	10340	8.8		42	10	7	5/22	10.9	"	"	"	"	28	TR	3.5		96.5		
3/23	10354	"		41	"	6	5/20	10.8	6.0	"	.39/1.3	"	"	"	3.6		96.4		
3/24	10405	"		43	9	8	5/19	"	6.2	"	.39/1.4	"	"	"	"		"		
3/25	10503	8.7		44	11	10	8/20	11.0	6.4	"	.45/1.45	800	16	"	3.3		96.7		
3/26	10629	"		45	13	9	5/20	10.8	8.0	"	.33/1.23	600	52	"	"		"		
3/27	10710	"		51	14	14	8/18	"	6.0	"	.35/1.2	500	20	"	"		"		
3/28	10760	"		46	"	10	6/20	10.5	7.0	"	.15/.5	600	50	"	"		"		

COMPANY NAME: SOHIO PETROLEUM MUD RECORD: 8 OF 10 WELL NAME RED KNOLL 33-B

DATE	DEPTH	WEIGHT	MUD GRADIENT	FUNNEL VIS	PLASTIC VIS	YIELD POINT	GEL STRENGTH	PH	FILTRATE API	CAKE	ALKALINITY FILTRATE	CHLORIDE PPM	CALCIUM PPM	SAND % CONTENT	SOLIDS % CONTENT	OIL % CONTENT	WATER % CONTENT	~~XXXXX~~ NITRATES PPM	% CHROMATE
3/29/83	10794	8.8		44				8.0	7.2	1		600	200	TR				180	
3/30	"	"		42	11	8	3/8	7.6	7.6	"	0/1.6	"	220	"	3.6		96.4	"	
3/31	"	"		41	10	10	3/10	7.9	"	"	.1/1.3	400	120	"	4.0		96.0	"	
4/1	10821	"		47	13	22	15/25	11.6	6.8	"	1.1/2.2	"	24	"	"		"	"	
4/2	10861	"		43	14	5/17	5/17	11.4	"	"	1/2.1	"	32	"	3.6		96.4	"	
4/3	10905	"		44	16	12	3/11	11.3	5.8	"	.7/1.6	"	"	"	"		"	"	
4/4	10935	"		"	15	"	3/10	11.1	6.0	"	.4/.8	"	36	"	3.5		96.5	"	
4/5	10951	"		41	13	9	2/7	10.7	5.6	"	"	"	60	"	3.6		96.4	"	
4/6	11001	"		40	"	7	2/6	10.8	5.0	"	.3/.6	"	48	"	3.2		96.8	"	
4/7	11015	8.7		41	"	"	"	10.6	5.6	"	.2/.5	"	72	"	3.0		97	"	
4/8	11094	"		"	15	12	3/9	10.7	5.2	"	.4/.8	"	36	"	2.8		97.2	"	
4/9	11117	"		40	14	10	2/8	10.8	5.4	"	.5/1	"	28	"	"		"	"	
4/10	11170	"		42	13	"	3/10	11.1	5.0	"	.6/1.2	"	"	"	"		"	"	
4/11	11264	"		40	15	"	"	10.7	"	"	.7/1.3	"	"	"	"		"	"	
4/12	11345	8.6		44	"	"	4/10	10.9	"	"	.6/1.2	"	"	"	3.0	3	94.0	"	
4/13	11459	8.7+		46	16	14	5/17	11.1	"	"	.4/.9	"	"	"	3.2	"	93.8	"	

COMPANY NAME: SOHIO PETROLEUM MUD RECORD: 9 OF 10 WELL NAME RED KNOLL 33-B

DATE	DEPTH	WEIGHT	MUD GRADIENT	FUNNEL VIS	PLASTIC VIS	YIELD POINT	GEL STRENGTH	PH	FILTRATE API	CAKE	ALKALINITY FILTRATE	CHLORIDE PPM	CALCIUM PPM	SAND % CONTENT	SOLIDS % CONTENT	OIL % CONTENT	WATER % CONTENT	NITRATES PPM	CARBONATE
4/14/83	11562	8.7+		51	18	12	6/23	10.6	5.0	1	.2/.5	400	48	TR	3.2	3	94.8	180+	
4/15	11566	"		48	15	10	2/11	10.4	5.2	"	"	"	"	"	"	"	93.8	180	
4/16	11667	"		53	14	7	5/34	10.1	5.3	"	.1/.35	"	188	"	3.5	"	93.5	180+	
4/17	11754	8.8		52	"	8	7/32	10.8	5.0	"	.2/.5	"	200	"	3.8	2	94.2	180	
4/18	11776	"		56	"	12	10/32	11.0	"	"	.2/.4	"	140	"	"	"	"	"	
4/19	11888	8.9		48	11	8	4/22	10.5	5.4	"	.2/.5	"	260	"	4.8	4	91.2	"	
4/20	11994	"		52	12	10	7/32	10.9	5.0	"	.3/.6	"	316	"	"	"	"	"	
4/21	11078	9.0		46	"	"	5/19	11.2	"	"	1./1.9	"	20	"	5.2	2	92.8	"	
4/22	12089	8.9		47	10	10	8/23	10.5	5.2	"	.85/1.65	800	"	"	4.5	4	91.5	"	
4/23	12181	9.0		51	12	23	13/33	11.5	6.0	"	.38/.82	600	44	"	4.9	3	92.1	"	
4/24	12272	"		52	"	22	11/28	"	5.6	"	.5/1.3	"	36	"	"	"	"	"	
4/25	12297	"		49	13	12	6/24	10.5	6.4	"	.45/1.0	500	28	"	"	"	"	"	
4/26	12297	8.9		50	10	"	6/17	"	6.0	"	.45/1.15	"	20	¼	4.7	2	93.3	"	
4/27	12297	"		62	12	13	8/20	10.8	5.0	"	.5/1.25	700	32	¼	4.9	"	93.1	"	
4/28	"	"		52	9	8	10/19	"	6.8	"	.45/.85	500	"	"	"	"	"	100	
4/29	12297	"		60	12	11	15/21	11.0	5.6	"	.5/.9	600	40	"	"	"	"	"	

COMPANY NAME: SOHIO PETROLEUM MUD RECORD: 10 OF 10 WELL NAME RED KNOLL 33-B

DATE	DEPTH	WEIGHT	MUD GRADIENT	FUNNEL VIS	PLASTIC VIS	YIELD POINT	GEL STRENGTH	PH	FILTRATE API	CAKE	ALKALINITY FILTRATE	CHLORIDE PPM	CALCIUM PPM	SAND % CONTENT	SOLIDS % CONTENT	OIL % CONTENT	WATER % CONTENT	NITRATES PPM
4/30/83	12384	9.0		57	16	10	7/35	10.6	6.0	1	.35/.65	400	72	TR	5.1	3	91.9	100
5/1	12461	"		58	15	12	4/27	10.5	5.4	"	.3/.6	"	48	"	"	"	"	"
5/2	12533	9.1		"	13	17	9/37	10.7	5.2	"	.7/1.5	"	20	"	5.4	4	90.6	"
5/3	12549	9.0		51	"	11	7/27	"	"	"	.8/1.4	"	24	"	5.2	3	91.8	180
5/4	12549	"		53	"	13	6/26	10.6	5.6	"	.6/1.1	"	"	"	"	2	92.8	"
5/5	"	"		54	12	11	7/28	10.9	5.4	"	.6.1	"	"	"	5.1	"	92.9	"
5/6	12549	8.9		59	14	16	7/34	"	5.6	"	"	"	"	"	4.8	"	93.2	"
5/7	"	9.0		61	13	17	7/38	11.2	5.4	1	1/2.4	"	28	"	5.2	"	92.8	"
5/8	12618	8.9		63	17	18	8/40	10.4	5.2	"	.5/1.9	"	88	"	4.5	"	93.5	"
5/9	12712	"		58	15	13	5/25	11.2	"	"	1.4/2.9	"	36	"	"	4.5	90	"
5/10	12803	9.0		57	17	10	6/28	11.1	"	"	1.5/3.3	"	@*	"	5.0	"	90.5	"

SOHIO PETROLEUM COMPANY
RED KNOLL 33-B
SE/NW SECTION 33-T13N-R7E
RICH COUNTY, UTAH

SAMPLE DESCRIPTIONS

100 - 130	SS lt-red tan vfg grdg to SLTST shly sm/vgt SH sdy calc
130 - 220	LS crm off-wh vf micxln dse slty sdy arg ip /
	TR CACL INCL bcmg slty to vsdy /ABNT CMT CONTAMINATION
220 - 250	NS
250 - 280	SLTST lt-tan lt-red shly /sm grdg to vfg SS /sm SH lt-red vslty-10%-15% dkgy SH frm occ v sil/
	TR CHT trnsl gy-brn
280 - 670	CONGL vcol vgt v ang QTZ, CHT, LS, DOL w/ABNT intbd vcol SH /ABNT SS m-cg w-cmt sbrd
670 - 730	SS frst clr lt-gry f-mg p-srt pred QTZC tt /sm f-intgran por/
	TR CHT ltgy smky /
	SH 10-15% dkgy
730 - 670	SS AA 30% /SLTST & SH ltred ltbrn
760 - 790	LS ltgy chlky ip f-vfxln dse /
	SS & SH 40% AA
790 - 850	LS lt-mgy vf micxln dse arg to occ shly 30%-40% /
	CONGL AA vgt (hole cvgs)
850 -1150	LS gy vf micxln dse /occ v thin lams SLTST/
	TR CALC FL FRAC/
	LS pred v arg /TR ltgy-brn crpxln LS
1150-1300	LS m-dkgy /sm gybrn mic-crpxln dse /occ SLTST lam AA/ incrg gybrn v dse crpxln /
	TR PYR occ chlky
1300-1360	LS AA /
	TR ANHY ofwh ltblgy/
	TR GYP wh fib
1360-1600	LS gy gybrn fv-micxln dse arg /occ slty
1600-1840	LS gy vfmicxln dns /occ vthin SLTST seams/
	TR micro mica INCL s/ltgy chlky ABN CALC FRAC FL & CALC FL HAIRLINE FRAC
1840-1870	SS ltgy vfg sbang f-w-srt tt QTZ ip calc slty /sm CALC covered FRAC FACES/
	LS 10%-15% AA
1870-1900	LS gy ltbrn olive crpxln dns /ABNT calc 10%-15%
	SS AA/ ABN SLTST
1900-2050	LS gy micxln dns varg /sm olv ltbrn crpxln dns /ABNT FRAC occ chlky/
	TR SLTST ltgy
2050-2170	LS gybrn olv mic-crpxln dns arg to occ thin shly strks /sm v thin SLTST seams
2170-2200	LS gy f-vfxln dns /ABNT brn OOL & ABN ltgy vslty ANHY ip/
	TR wh xln ANHY
2200-2230	LS gy f-xln dns slty anhyc /ABN ANHY/
	TR GYP wh fib
2230-2260	ANHY wh xln dns /sm wh GYP 20%-30%
	LS ltgy fxln v anhyc
2260-2290	SH red erthy to v slty /sm grdg to SLTST/pred v ANHY wh 10%
2290-2350	SS gy vf-fg sbang-ang v tt calc slty to bcmg shly /sm grdg to v slty shly LS
2350-2380	SS AA w/30% LS ltgy tan w/ABNT OOL brn
2380-2430	LS ltgy-brn vf-micxln dns v ool /sm calc mtrx
2430-2470	SLTST gy calc to lmy /sm red rust SH & SLTST /TR ANHY 10%-20%/LS gy slty v arg /TR SH gy slty calc
2470-2500	SLTST gy calc /sm grdg to slty LS/
	TR OOL 20% LS
2500-2525	LS gybrn crpxln dns v arg
2514-2600	LS gy micxln dns bcmg more arg
2600-2750	LS bngy micxln dns v arg to occ shly/ABNT CALC FL FRAC & FRAC FL

2750-2840	LS dkbrngy mic-crpxln dns v arg to shly /occ strks v calc SH
2840-3050	LS gy mic-crpxln dns arg sil /sm brn crpxln v sil / TR PYR & TR CALC /sm OOL beds3050-3080 LS gybrn crpxln dns sil ip arg slty to bcmg sdy/ TR PYR mic
3080-3140	DOL ltgy lttan vfg to vf micxln dns /ABN ANHY INCL pred anhyc DOL 30%/ LS gybrn dolo
3140-3170	SLTST redbrn sdy shly anhyc 20% DOL AA /ABNT ANHY
3170-3200	DOL lttan anhyc vf-micxln dns slty ip /sm grdg to v dolo SLTST
3200-3260	SH gy frm vcalc vanhy /sm grdg to vshly dolo anhyc LS
3260-3290	SH red frm pred v anhyc slty ip sdy ip occ intbd gy vshly dolo anhyc LS
3290-3400	SH red AA w/30-40% LS gy & gy shly dol /ABNT wh ANHY/ TR SLTST redbrn /sm thn bds fg clr SS
3400-3420	DOL gy /sm dkgybrn v arg /20-30% SH gy frm sli calc anhyc /ABNT SS fg clr ang / SH 20% AA red
3420-3450	SS wh off-wh lt rust vfg sbang psrt /ANBT w-rdd cg fltg QTQ grns/ SH 15-20% red
3450-3500	SS tan lt salmon fg sbang f-srt /ABNT crs fltg gn /sm wh CLY FL
3500-3580	SS wh ofwh fg p-srt bcmg fria /abnt med lse SD grs
3580-3650	SS ofwh ltgy pred uncons lse mg frst SD grs /occ thn strks ltred shly cmtg
3650-3700	SS ltgy lttan pred consl f-mg psrt tt bcmg more QTZC
3700-3750	SS ltgy off-wh fg sbrd psrt /ABNT m-cg w-rdd fltg grs
3750-3800	SS off-wh grdg to lt salm ltred fg sbrdd psrt tt QTZC
3800-3900	SS salm fg sbang f-srt vtt QTZC
3900-3950	SS sal ltred fg sbang psrt vtt QTZC /ABN w-rdd m-cg fltg QTZ grs /occ thn beds wh frst fg SS
3950-4250	SS salm ltred fg tt QTZC less fltg grs incrg red v sil QTZ bds bcmg more red-rust in color
4250-4400	SS ltred-rust fg p-srt sbang vtt slty shly sil ip pred QTZ
4400-4620	SS pred salm fg sil QTZ w/ABN intbd dkred shly sil vfg SS /ABNT v thn seams red SH
4620-4650	SS AA w/30% SH red frm blky w/occ gn SH INCL
4650-4760	SH red frm blky slty ip / TR ANHY & TR SH gn wxy /ABNT v thn lam ltred SLTST
4760-4790	SS lt rust wh frst vfg grdg to SLTST / SH 40% AA
4790-4910	SH dkred dkpurp frm blky /ABNT XLN CALC INCL / TR DOL pebbles dkredbrn /ABNT gn SH INCL & thn seams occ BENT /occ DOLO / ABNT DOL lav mic-crpxln dns arg
4910-4940	DOL ltgy tan brn mic-crpxln dns arg sil ip / SH AA 10-15%/ TR CHT smky trnsl fiss
4940-4970	SH dk marn dkred frm blky calc
4970-5000	SH AA w/20% dkgy blk vcalc SH /sm grdg to v shly arg LS
5000-5030	LS dkgy blk shly mica vf xln dns / SH 40% blk calc frm /ABNT HAIRLINE CALC FL FRAC
5030-5060	SS clr frst amber f-m-cg ang to occ rdd psrt unconsl
5060-5180	SH red /sm marn frm bent anhyc ip blky /TR gn wxy SH /occ thin beds v calc SLTST lmy
5180-5210	SS dkred m-cg ang vshly tt /ABNT MICA & TR ANHY
5210-5240	SS wh clr f-mg tt QTZ /20% red AA/ TR LS ltgy micxln
5240-5270	LS gy micxln dns arg /sm ltgy wh chlky /sm CALC FRAC FL
5270-5300	SH red frm blky slty ip /sm vcalc / LS 10%-20% dkgy v shly arg
5300-5420	SH red frm blky slty /sm grdg to SLTST /occ thn bd rust frm SLTST

5000-5030	LS dkgy blk shly mica vfxln dns/ SH 40% blk calc frm /ABNT HARLN CALC FL FRAC
5030-5060	SS clr frst amber f-m-cg ang to occ rdd p-srt uncons
5060-5180	SH red /sm marn frm bent anhyc ip blky / TR SH gn wxy /occ thn bd v calc lmy SLTST
5180-5210	SS dkred m-cg ang vshly tt /ABN MICA & TR ANHY
5210-5240	SS wh clr f-mg tt QTZC /20% red AA/ TR LS ltgy micxln
5240-5270	LS gy micxln dns arg /sm ltgy wh chlky /sm CALC FRAC FL
5270-5300	SH red frm blky slty ip /sm vcalc/ LS 10-20% dkgy vshly arg
5300-5420	SH red frm blky slty /sm grdg to SLTST /occ thn bd rust frm SLTST
5420-5510	SLTST ltred-rust frm shly calc/ SH 20%-30% red
5510-5540	SS ltgy wh vfg to SLTST calc QTZC tt/ SLTST 10% red
5540-5600	SH red frm slty slcalc / SLTST 20% AA
5600-5690	SH redbrn frm blky mica slty ip intbd ltbrn-rust SLTST calc ip
5690-5720	SS wh ltgy vfg grdg to SLTST QTZC tt slcalc/ SH 20% redbrn AA
5720-5750	SH redbrn frm blky mica slty/ SLTST 20% wh
5750-5780	SLTST gy-ltgy frm calc /sm grdg to vfg SS /ABNT MIC INCL/ TR SH gy
5780-5840	SH redbrn frm mica slty ip/ SLTST 30-40% rust ltbrn & vfg SS
5840-5900	SLTST lt-m-dkgy vtt calc ip/ SS 15-20% ltgy v mica sbang-ang shly/ SH 10% gy
5900-5930	DOL gy vfxln dns slty arg/ SLTST 40-50% gy-ltgy /sm brn DOL frm
5930-5990	SLTST rust-ltbrn frm shly DOLO ip anhyc
5990-6020	SLTST AA 30% dol gy micxln dns arg anhyc/ABNT ANHY
6020-6080	SH redbrn frm slty grdg to ltrust SLTST anhyc/ TR ANHY 30% SLTST
6080-6200	DOL ltgy fg to vfxln dns slty ip /sm grdg to DOL-SLTST /occ grdg to dkgy arg MICA/ TR PYR
6200-6260	SH gy-dkgy frm blky mica/ TR PYR INCL calc ip/ LS 40% ltgy f-vfxln dns /sm wh chlky pred gy arg
6260-6320	LS ltgy of-wh pred chlky/ 30-40% ltgy vfxln arg ip /sm DOLO/ TR PYR /ABNT CARB INCL blk
6320-6350	LS gy-ltgy vf-mic to sm crpxln dns arg to bcmg shly /sm ltgy chlky/ TR ARAGNT/20% SH gy mica frm calc
6350-6500	LS gy vf-micxln dns arg shly mica /sm ltgy off-wh chlky/ SH 30-40% gy frm blky calc ip mica
6500-6530	LS gy-ltgy vfxln dns arg/ SH 40% brn marn frm plty fiss slcalc
6530-6560	SH brn marn AA w/ DOL 50% gy vf-micxln dns vshly grdg to dolo SH
6560-6650	SH dkgy frm v dolo to bcmg shly dol /sm thn bds mgy arg dol
6650-6680	LS ltgy /sm lttan vfxln to bcmg pred chlky /ABN gy v calc SH
6680-6800	SH gy-dkgy blky calc ip /occ bed marn-brn SH /occ thn beds v arg gy LS
6800-6950	LS gy vf micxln dns varg to occ shly mica intbd SH gy-dkgy pred calc to sm v lmy
6950-7100	LS gy micxln dns arg to bcmg shly mica/ ABN CALC FL FRAC intbd SH dkgy mica calc ip /sm bcmg sli carb

7100-7190	SH dkgy blk fiss plty calc ip brtl /ABN HARLN CALC FLD FRAC intbd LS gy-ltgy v arg to shly
7190-7250	SH blk erthy plty fiss brtl slcalc /occ CALC OOVERED FRAC FACES/ ABNT MICA INCL
7250-7370	LS gy vf-micxln dns /ABN FRAC arg /occ intbd gy DOL & gy calc SH
7370-7400	SLTST lt org-rust anhyc/ TR ltred SH/40% gy arg LS/ TR DOL ltgy micxln
7400-7550	LS gy-ltgy mic-occ crpxln dns arg-occ sil /occ thn chlky bds/ TR PYR/ occ thn bds gy-dkgy brtl mica slcalc SH
7550-7640	SH dkgy/ sm blk plty fiss brtl w/thn intbd dkgy vfxln arg LS/ ABNT CALC FLD FRAC & FRAC FACES
7640-7670	SH dkgy blky brtl calc /sm grdg to dkgy shly LS /sm blk plty fis SH/ occ lt gy chlky LS strk
7670-7740	SH dkgy-blk fiss plty calc ip /ABNT FRAC /ABNT metal shavings
7740-7800	LS ltgy vf-micxln dns /ABN CALC FRAC FL intbd gy SH AA
7800-7840	SH dkgy /occ blk fiss plty carb ip /ABNT HAIRLINE CALC FLD FRAC /occ LS STRK gy arg dns
7840-7950	LS ltgy of-wh arg ip vf-micxln dns /occ DOLO grdg to intbd gy vfxln DOLO/ sm vfg & w/TR dkgy SH
7950-7970	LS gy-ltgy mic-occ crpxln dns/ ABNT FRACTURING DOLO arg ip /sm grdg to gy micxln calc DOL
7970-7980	LS AA w/SH 30% ltredbrn & shly SLTST
7980-8000	SH ltredbrn frm brtl mica slty ip /sm thn lam SLTST/ TR LS AA
8000-8070	SLTST gy-ltgy v colo sil QTZC/ 40-50% DOL gry mic-crpxln dns sil pred slty
8070-8080	SLTST gy AA/ 40% lt redbrn-rust SLTST & slty SH
8080-3120	SH redbrn frm mica slty /sm rust SLTST/ TR SLTST anhyc
8120-8130	SH AA w/30% DOL gy-ltgy vf-micxln dns sili ip slty ip
8130-3210	DOL gy vf-micxln dns sil ip slty ip arg strgrs /sm v thn bds marn-brn slty SH /sm blk plty (SH CVGS) /occ thn bds ltgy DOLO-SLTST/TR DOLO LS gy
8210-8280	SH lt red-brn frm-occ sft anhyc slty/ABNT HARLN ANHY FLD FRAC
8280-8310	SH dkred frm blky brtl slty- sm/SLTST redbrn DOLO/ ABNT ANHY
8310-8320	SLTST lt rust frm shly anhyc DOLO
8320-8330	SH dkred blky frm brtl /ABNT ANHY
8330-8340	SLTST rust frm anhyc DOLO shly
8340-8350	SH dkred frm brtl /ABNT ANHY FL FRAC
8350-8370	SLTST lt rust ltbrn v anhyc DOLO shly
8370-8380	SH dkred blky brtl
8380-8390	ANHY lttan ofwh rust v shly grdg to v anhyc SH
8390-8410	SH dkred frm brtl plty /ABNT ANHY FL FRAC
8410-8450	SH dkred redbrn anhyc w/ ANHY 40-50% wh
8450-8480	SH lt rust v anhyc/ ANHY 50% wh /sm pk & TR lt gy anhyc sl dolo SLTST
8480-8490	SH dkred frm brtl plty blky ip
8490-8500	DOL ltgy lttan mic-crpxln dns /sm ltred mtlg/ SH 20% red & ANHY 40% wh
8500-8510	SH dkred AA / SLTST 50-60% lt rust anhyc
8510-8550	SH dkred frm blky /sm plty brtl/ TR ANHY
8550-8560	SH dkred AA/ SH 40% gy frm dolo mic slty /sm grdg to SLTST
8560-8580	SH gy frm blky dolo ip /30-40% grdg to dolo SLTST/ ABNT MICA INCL
8580-8600	SLTST ltbuff sil QTZ sldolo vhd /sm grdg to vfg SS
8600-8630	SH red frm slty w/intbd gy dolo SLTST & slty DOLO
8630-8640	SS ltbuf gy vfg vQTZC sildolo/ SLTST 40% gy dolo sil

8640-8650	SLTST gy hd sil dolo/20% SS AA/40% SH red marn frm
8650-8660	SH redbrn vslty bcmg redgy SLTST/ 10-15% SS ltgy ltbrn vfg dolo sil
8660-8670	SS gy ltbuf vfg grdg to SLTST dolo ip sil QTZC arg/ TR SH gy slty
8670-8680	SH red-ltbrn slty /TR DOL gy v slty arg/ SS 30% AA & 30% SLTST gy rust dolo
8680-8700	SS gy ltbuf vfg QTZ sil arg dolo ip
8700-8710	SS gy vfg ang p-srt /ABNT MICA INCL sil ip dolo ip/ SH 10-15% gy/ TR SLTST gy
8710-8720	SH marn gy slty sdy /ABNT mica in SH & SLTST / SS 20% AA
8720-8760	SS gy ltbuf vfg vQTZC sil ip slty grdg to marn tan & gy SLTST dolo/ SH 30% gy slty
8760-8780	SH marn ltred slty w/intbd marn SLTST dolo/ ABN ANHY FL FRAC w/occ thn bds tan ltbuf mic-crpxln dns anhyc dol
8780-8820	SH red frm blky slty ip anhyc ip
8820-8830	SH ltred-rush sft anhc slty
8830-8860	SH red-dkred blky frm slty strks anhyc ip
8860-8870	SH AA w/ANHY 40% wh xln /ABNT sft v anhyc SLTST
8870-8980	SH dkred frm blky brtl /occ thn bds rust SLTST /ABNT ANHY FL FRAC & FRAC FL
8980-8990	SH AA/ SLTST 10-20% gy hd dolo
8990-9090	SH red frm blky w/ABNT thn lam red SLTST/ ABNT wh xln ANHY FRAC FL/ occ v mica
9090-9100	SH AA/ SH-SLTST 30% gy slty
9100-9250	SH dkredbrn frm blky slty ip /ABNT ANHY INCL & ANHY FL FRAC /occ thn beds SLTST lt red
9250-9300	SH red frm blky slty ip w/lam of redbrn SLTST /ABNT ANHY INCL & ANHY FL FRAC /9280-90' ABN MICA LCM & CONTM vf ang QTZ grns
9300-9350	SH red frm blky slty w/intbd rust frm SLTST /ABNT wh xln ANHY
9350-9500	SH red frm blky /sm plty /occ slty /occ thn bds rust SLTST /ABNT intbd wh xln ANHY
9500-9520	SH red AA w/ ANHY 40-45%
9520-9530	SH red blky frm /sm plty /TR ANHY/ TR lt org rust arg LS / 10-15% gry v dolo SH /sm grdg to v shly dol
9530-9540	SH gy frm DOLO /10-20% DOL gy arg mic xln dns
9540-9550	SH red frm blky ip /abn dkred spltry SH /TR SLIKENSIDES
9550-9560	DOL gy vf micxln dns v arg to shly /sm grdg to DOLO SH
9560-9580	DOL gy-ltgy arg vf-micxln dns /sm bcmg shly-dolo SH /occ slty
9580-9605	DOL ltgy sugary vfg to occ mic xln dns /sm slty grdg to dolo SLTST
9605-9636	CORES #1 & #2 (SEE CORE REPORT FOR DETAILS) pred dol w/ABNT v thn lam of dkgy SH in upper 5'. The rest DOL w/ occ shly seams /occ arg beds / TRS slty strks & ABNT ANHY FL FRAC
9636-9650	DOL gy-ltgy slty ip arg ip/ TR ofwh crpxln DOL/TR v dolo SLTST
9650-9730	DOL ltgy ofwh vfg to vf-micxln dns slty ip /occ thn SLTST beds/ sm grdg to SS vfg, TRS marn-brn SH
9730-9740	SH brn frm plty to /sm blky mica hd brtl smth
9740-9750	DOL gy-ltgy vf-micxln dns slty/ TR DOLO SLTST lt gy & TR SH AA
9750-9760	SH gy frm blky dolo/ 50% DOL gy arg crpxln dns sil v hd
9760-9800	SH gy frm calc to /sm dolo w/intbd/ TR PYR v thn seams /sm thn ANHY FL FRAC /occ marn-brn plty SH/ TR LS ltgy vf xln dns
9800-9810	LS ltgy ofwh vf mic to occ crpxln dns arg ip chlky ip/ SH 30% pred marn-brn plty frm brtl/ TR SH gy

9810-9820	SH marn-brn frm brtl plty to /sm blky /occ v thn SLTST LAM / TR LS AA & TR SH gy
9820-9830	SH gy frm blky dolo to /sm calc 30% brn AA /ABNT gy v hd sil dolo SLTST
9830-9840	LS ofwh vf-micxln sil arg to /sm bcmg vslt/ SH 30% gy frm
9840-9850	SLTST gy tan vhd calc sil ip/ SH 20% brn /sm gy frm / TR LS AA
9850-9880	SLTST gy vhd sil calc ip/ LS 40% ofwh lttan vf-xln dns /occ chlky /ABNT CALC FL FRAC/ TR SH gy frm
9880-9910	SH pred gy /20% marn-brn frm mica brtl/ SLTST 25-30% gy vhd sil slcalc
9910-10000	SH gy frm brtl plty to sm blky mica pred non-calc intbd LS gy ltgy arg/occ slty /occ chlky
10000-050	SH ry smth mica (HAS METALIC LOOK) frm blky to occ plty /occ thn LAM SLTST-intbd LS (20-25%) gy ltgy vf-micxln dns /sm CALC FL FRAC
10050-070	SH gy smth frm mica PYR ip intbd LS gy vf-micxln dns/ TR PYR INCL /ABN CALC FL FRAC
10070-080	SH gy smth mica frm brtl /ABNT CALC FL FRAC / TR LS
10080-110	LS gy-ltgy vf micxln dns /ABNT CALC FL FRAC intbd SH AA
10110-130	LS ltgy micxln dns /ABNT PYR INCL/ SH AA 30%-40% gy /TR SH blk frm v pyrc
10130-160	SH gy frm mica pyrc intbd gy arg LS
10160-180	SH dkgy frm erthy /ABNT PYR/ TR LS
10180-220	SH blk frm blky /sm plty /ABNT phos pellets /ABNT PYR
10220-230	DOL gy micxln dns phos v chty /ABNT CHT INCL v arg to bcmg shly/ SH 30% blk brtl phos dolo sil
10230-250	CHT gy smky brn trnsl v badly frac/ SH 40-50% blk v sil dolo
10250-270	SH blk frm blky /sm vhd vsil /ABNT PHOS PEL/ CHT 10-15% AA
10270-280	CHT brn smky trnsl frac/ SH 40-50% dkbrn blk vsil hd brtl
10280-300	SH dkbrn-blk vsil brtl /ABNT FRAC/ CHT 15-20% dkbrn-blk trnsl
10300-320	CHT gy smky ltbrn trns /ABNT FRAC/ SH 20% brn dkgy vsil dolo
10320-331	(CORRECTED DEPTH) SH blk hd brtl pred sil /sm earth phos/ CHT AA 10-15%
10331-336	CORE #3-REC 48' pred SH blk hd brtl sil w/intbd LS dkgy arg micxln dns bcmg shly /ABNT CALC FL FRAC CORE #4-CUT 18'-REC 15' pred LS dkgy micxln dns arg to shly /occ sil strks/ occ intbd SH dkgy calc (total core v badly frac)
10354-390	SH blk /sm dkgy blky plty ip calc ip /occ thn bed gy-dkgy varg to shly LS /TR gy slty LS
10390-420	SH dkgy-blk frm pred calc w/occ thn bd LS/ TR CHT ltgy smky
10420-450	SH blk plty blky carb brtl/TR phos/ TR CALC /sm v calc
10450-470	SH blk vcarb vphos blky brtl /ABNT CALC FL FRAC /ABNT phos pel calc
10470-570	SH blk plty blky frm brtl vcarb /occ vcalc bds /occ v phos bds
10570-650	SH blk-dkgy less carb less phos intbd gy drty vshly LS (20%)/ABNT CALC FL FRAC

RED KNOLL 33-B
SAMPLE DESCRIPTION CONTINUED

10650-660 DOL brn-ltbrn /sm tan mic-sm/crpxln dns /ABNT FRAC /sm CALC
10660-680 DOL tan gy vf-mic to sm/crpxln dns /sm gy LS slty sdy
10680-690 DOL pred gy micxln dns varg /sm shly s/sm tan AA
10690-720 DOL tan buff mic /sm crpxln dns /sm gy AA /ABNT FRAC dol bcmg sdy /sm ltbrn crpxln
10720-730 DOL lttan ltgy vf-micxln dns /
TR ANHY FRAC FL
SS 10-15% wh vfg vdolo /sm grdg to sdy dol
10730-740 SS clr frst vfg dolo anhy cmtg /sm dkgy blk DEAD OIL looking residue in mtrx makes SS look gy
DOL 10-20% tan gy pred sdy
10740-750 SS wh gy vfg vtt /ABNT ANHY cmtg & FRAC FL /sm dolo
DOL 10% AA
10750-760 SS wh gy vfg w/ABNT crs w-rdd fltg grns /ABN ANHY FL FRAC
10760-770 SS gy vfg sbang psrt tt /ABNT blk residue in mtrx
10770-780 SS AA
DOLO 30% tan crpxln dns
10730-790 DOL gy sdy vf-micxln dns /sm tan AA
SS 30% AA /ABNT ANHY
10790-794 SS wh-ltgy vfg sbang p-srt /ABNT crs w-rdd fltg QTZ grns vtt cmtd w/ANHY/
ANHY 10% wh xln
10794-820 SS wh vfg sbang p-srt fltg grns AA/
TR CHT ltgy smky brkn pebbles /ABNT wh ANHY cmtg
10820-840 SS wh vfg AA more anhyc /sm grdg to sdy ANHY/ SS 20% dkgy arg/
ANHY 30% wh
10840-860 SS gy vfg sbang p-srt /ABNT mg-cg w-rdd frstd smky QTZ grns
10860-880 SS ltgy /sm wh vfg sbang p-srt /ABNT clr fltg w-rdd grns/
ANHY 20% /
TR DOL lt olive brn crpxln
10880-890 DOL ltbrngy crpxln dns /occ PYR INCL/
SS 40% gy vfg AA
10890-910 SS gy vfg sbang-ang psrt pred vtt QTZC /
TR CHT & TR ANHY
10910-930 SS wh ltgy vfg v anhyc
ANHY 30% wh /ABNT gy dol motl /sm anhyc dol /sm gy dol micxln dns anhyc
10930-940 SS (VPS) ABN red WOODSIDE & gy DINWOODY - SS AA w/TR DOL gy brn
10940-950 DOL gybrn mic-crpxln dns arg/
SS 40% gy vfg psrt sbang tt
10950-960 SS gy vfg sbang psrt tt bcmg more QTZC/
TR DOL AA /ABNT ANHY
960-11000 DOL gy micxln dns /sm tan crpxln intbd SS vfg gy clr tt QTZC
11000-010 SS clr frst gy vfg sbang psrt /ABNT ANHY/
DOL 30% AA
11010-040 DOL tan ltbrn crpxln dns /ABNT ANHY FL FRAC /occ sdy & occ thn SS bds
11040-050 SS frst gy vfg sbang psrt dolo ip /sm sdy DOL AA
11050-120 SS frst clr vQTZC appears to be solid FRAC QTZ /TR PYR INCL has H_2S odor when hot /ABNT CHT lt smky trnsl
11120-150 SS frstd AA w/sm gy vfg vQTZC (VPS) /ABNT DINWOODY (due to having a reamer now in DINWOODY)/ TR CHT
11150-190 SS frst wh QTZC /TR CHT /sm DOLO CMTG /occ thn beds lt tan wh suc DOL
11190-210 NS
11210-250 SS frst gy vfg v QTZC /occ DOLO /occ thn bed DOL extremely sil /sm looking like CHT v FRAC
11250-270 SS clr frst w/ABNT blk dd oil residue - NO FLOR OR GAS - APPEARS V FRAC/
TR CHT
11270-300 SS frst lt tan appears like solid QTZ v FRAC /
TR CHT & TR DOL tan trnsl v sil /ABNT micro blk spks in QTZ & DOL

SAMPLE DESCRIPTION CONTINUED

11300-390 SS frst appears to be FRAC QTZ vQTZC SS sl dolo/
TR CHT trnsl
11390-410 DOL ltgy /sm ltbrngy vf-micxln dns arg ip w/sm ofwh crpxln dns sil chty ip
/ABNT ltbrn trns CHT / TR SS AA
11410-420 DOL gy mic-crpxln dns arg w/ABNT dkgy SH INCL w/sm bcmg vslty
11420-600 DOL ofwh ltgy lttan vf-micxln /occ suc /occ arg bds /sm bcmg shly ip /occ
thn bds vslty/ABNT wh ANHY FLD FRAC /ABNT PYR INCL
11600-610 DOL lttan micxln dns anhyc w/
SLTST 40% ltorg /sm grdg to vfg SS /ABNT ANHY
11610-620 DOL gy-dkgy arg vfxln dns /ABNT ANHY INCL & FRAC
11620-650 SLTST offwh ltorg frm dolo ip v anhyc/
ANHY wh xln 10-15%/lt gy DOL30-40%
11650-700 SLTST ltorg ltred anhyc /occ thn bed ltred vslty DOL/
SS 20% grdg to ltorg vfg /ANHY 10% wh
11700-750 SS ltorg ltred vfg sbang psrt tt anhy cmtg/
SLTST 20% AA /ABNT ANHY wh /occ thn bds lttan ltgy DOL
11750-770 SS clr frst vf-m-cg sbrd psrt pred tt anhy cmtg /sm glsy QTZC/
TR DOL gy micxln dns
11770-800 ANHY wh sft to m-frm /sm xln s/suc /occ intbd SS AA /ABN DOLO SH gy coming
from DINWOODY WHERE REAMER IS BEING RUN
11800-850 ANHY wh xln m-frm DOLO ip sdy ip intbd SS vfg ltgy wh tt gy-ltgy SLTST
11850-920 ANHY wh xln dns dolo ip/
TR SLTST
11920-930 ANHY AA/
SS 20% ltred salm vfg psrt tt red SH CMTG /sm v QTZC /ABNT m-cg sbrd FLTG grs
11930-940 SS sal ltred vfg v QTZC tt /ABNT cg w-rdd fltg grs pred v-psrt/
ANHY AA 30-40% AA
11940-950 SS ltred vfg QTZC tt sil ip/
ANHY 40% /
SH 30% dkgy/ TR gy-blk SH coming from reamer uphole
11950-990 SS salm-pk vfg v QTZC & sil /ABNT m-cg w-rdd fltg grs v-psrt/
ANHY 10-20%
11990-010 ANHY wh xln dns/
SS 20% ltred QTZC/ ABNT CVGS gy
12010-040 SS ltsalm f-vfg sbang psrt vtt pred QTZC /sm ANHY CMTG /ABNT ANHY COVERED
FRAC FACES
12040-080 SH red frm blky slty ip anhyc ip /ABNT ANHY INCL/
SLTST 20% ltred-rust
12080-100 SH gy frm blky after trip (BELIEVED COMING FROM REAMERS UPHOLE)
12100-110 DOL lttan ofwh mic-crpxln dns/
TR DOL ltgy arg
12110-130 SH ltred frm vslty grdg to ltrust SLTST pred v anhyc/
ANHY 20% ofwh /TR DOL AA
12130-160 SS red vfg sbang vtt shly slty/ 40% grdg to SLTST /ABNT anhhy /ABNT SH gy
from uphole
12160-180 ANHY ofwh sft /sm frm xln/
SH 30-40% red slty
12180-220 SH red frm slty anhyc/ 40-50% grdg to shly SLTST /sm grdg to vfg vtt SS
12220-230 ANHY wh xln dns/
SH 10% red AA
12230-270 SS ltred-rust vtt vfg/ 40% grdg to SLTST /sm thn intbd red SH /ABN ANHY FL
FRAC
12270-300 SH red frm slty sdy dolo ip /
TR ANHY
12300-350 ANHY wh dns xln ip dolo ip /sm thn intbd gy arg DOL & DOLO SLTST
12350-380 SLTST gy-ltgy dolo /sm grd to slty sdy DOL intbd wh ANHY /sm v thn seams/
wh vfg SS tt cmtg w/ANHY/
ANHY 20-30% wh

SOHIO PETROLEUM COMPANY
RED KNOLL 33-B
SAMPLE DESCRIPTION CONTINUED

12380-450 DOL ltgy vfg vslty /sm grdg to dolo SLTST /
TR ANHY AA dol pred arg

12450-550 DOL ltgy med to sm dkgy vf mic to occ crpxln dns /ABNT FRAC pred ANHY FLD/
occ TR CALC on FRAC FACES dol bcmg lmy /sm grdg to v dolo arg LS dol pred
v arg /sm slty /occ v thn beds dolo slcalc SLTST

12550-570 DOL m-dkgy bcmg varg to occ shly/ TR CALC FLD HAIRLINE FRAC /sm intbd ltgy
micxln dns dolo LS incr in wh xln ANHY /ABN CONTM FROM REAMER

12570-680 DOL ltgy vfg vslty grdg to dolo SLTST intbd ofwh SLTST v dolo v anhyc w/
intbd of wh xln ANHY & ABNT CONTM FROM REAMER

12680-700 ANHY wh xln pred frm /sm gy dol mtlg /sm thn beds gy slty DOL

12700-760 DOL gy /sm gybrn vf micxln dns arg /occ thn bd ltbrn crpxln dns sil/
TR lt gy DOLO SLTST /TR ANHY wh

12760-803 DOL dy-dkgy vf micxln dns arg /TR PYR INCL /ABNT intbd wh sft ANHY /sm
ANHY kdgy arg DOL INCL (SAMPLES 20% ANHY)

SOHIO PETROLEUM COMPANY
RED KNOLL 33-B
SE/NW SECTION 33, T13N, R7E
RICH COUNTY, UTAH

FORMATION TOPS

FORMATION	E-LOG TOP	SUBSEA DATUM
TERTIARY		
WASATCH	SURFACE	
JURASSIC		
TWIN CREEK	785'	+5693
WALTON CANYON	1835'	+4643
BOUNDRY RIDGE	2158'	+4320
RICH	2470'	+4008
SLIDE ROCK	2844'	+3634
GYPSUM SPRINGS	3149'	+3329
TRIASSIC		
NUGGET	3427'	+3051
ANKAREH	4619'	+1859
THAYNES	6062'	+ 416
WOODSIDE	7978'	-1500
DINWOODY	9555'	-3077
PERMIAN		
PHOSPHORIA	10162'	-3684
PENNSYLVANIAN		
WELL-WEBER	10651'	-4173
AMSDEN	11385'	-4907
MISSISSIPPIAN		
BRAZER	12394'	-5916

SOHIO PETROLEUM COMPANY
RED KNOLL 33-B
SE/NW SECTION 33, T13N, R7E
RICH COUNTY, UTAH

CORE DESCRIPTIONS

NOTE: CORES RUN BY CHRISTENSEN DIAMOND PRODUCTS
CORES PICKED UP AND ANALYZED BY TERRATEK CORE SERVICES

CORE #1 - CUT 13', 9605'-9618', RECOVER 12.8'

9605-9607' DOL gy vf micxln dns arg-v shly /ABNT v thn lam dkgy SH/ TR ANHY FL FRAC
DOL m-dkgy micxln dns v arg shly lam w/dkgy dolo SH
SH dkgy dolo hd brtl
9607-9609' DOL gy vf-micxln dns arg-vshly /ABNT thn HAIRLINE dkgy SH LAM ANHY FL FRAC
DOL gy shly w/SH LAM AA
DOL gy micxln dns v arg /sm thn SH INTBD AA
9609-9612' DOL ltgy tan crpxln dns /ABNT ANHY FL FRAC arg ip
DOL gy sm/dkgy v arg-occ shly /ABNT dkgy SH LAM /ABNT dkgy SH FL PRTGS (LOOKS LIKE ABOUT 45° DIP)
DOL gy micxln dns v arg shly /ABN SH LAM AA sm/ANHY FL FRAC AA
SH dkgy v hd brtl v dolo grdg to shly DOLO
9612-9614' DOL gy /sm lt tan crpxln dns thnly intbd w/dkgy SH
DOL gy micxln dns arg SH LAM AA
SH gy v hd v dolo brtl dns
DOL gy micxln dns w/thn intbd dkgy SH AA
9614-9617' DOL gy micxln dns v shly /ABNT ANHY FL FRAC
SH dkgy hd brtl v dolo thn intbd shly dol
DOL dkgy micxln dns v shly bcmg dolo SH
SH dkgy v hd brtl dns dolo /ABNT FRAC

CORE #2 - CUT 18', 9618'-9636', REC. 16.8'

9618-9619' SH gy hd brtl dolo grdg to gy shly DOL ANHY FL FRAC
DOL gy micxln dns v shly /ABNT dkgy SH LAM
9619-9620' DOL ltgy tan mic-crpxln dns arg /ABNT ANHY FL FRAC
DOL tan crpxln dns /less arg /TR SH v thn HAIRLINE PRTGS
9620-9622' DOL tan mic-crpxln dns arg ip /ABNT ANHY FL FRAC
DOL tan crp-xln dns v hd ANHY FL FRAC AA
9622-9624' DOL tan mic-crpxln v hd dns
DOL gy micxln dns v arg /occ shly ANHY FL FRAC AA
9624-9627' DOL gy vf-micxln dns arg
DOL gy vf-micxln dns /ABNT FRAC ANHY FL
DOL gy ltgy micxln dns sli arg
9627-9630' DOL gy vf-micxln dns /ABNT v thn intbd gy SLTST
DOL gy micxln dns v hd arg ANHY FL FRAC
DOL gy micxln dns arg sili v hd brtl
9630-9632' DOL gy micxln dns arg to bcmg shly
SH gy dns hd dolo brtl sili ip
DOL gy vf-micsln dns shly w/dkgy SH LAM
9632-9634' DOL gy micxln dns hd brtl v arg ANHY FL FRAC AA
DOL gy micxln dns v hd brtl v arg ANHY FL FRAC AA

RED KNOLL 33-B
CORE DESCRIPTIONS CONTINUED

CORE #3 - CUT 5', 10,331'-10,336', REC 4.8'

10331-332'	SH blk plty carb dolo ip calc ip /ABNT CALC FL FRAC (NO H_2S ODOR)
	SH dkgy blk sili /occ v thn lam dkgy v arg LS /ABNT CALC FL FRAC
10332'-334'	SH blk plty sili hd /sm v thn gy arg DOL seams
	LS dkgy micxln dns arg /ABNT CALC FL FRAC
	SH blk plty hd brtl CALC LAM (NO H_2S ODOR)
10334-335'	SH blk plty w/thn arg LAM LS /sm DOLO seams CALC FL FRAC

CORE #4 - CUT 18', 10,336'-10,354', REC. 15'

10336-337'	SH blk hd brtl badly FRAC /ABNT CALC
	LS dkgy micxln dns v arg shly /ABNT CALC INCL & FL FRAC
	LS dkgy dkbrn micxln dns v arg shly /sm thn blk LAM CALC SH/ABNT CALC FL FRAC & INCL
10337-339'	LS dkgy blk micxln dns sili v shly "BADLY BROKEN"
	LS gy micxln dns arg-shly sili hd brtl
10339-341'	LS gy dkgy shly AA /sm thn intbd blk SH
	LS gy dkgy arg /sm bcmg dolo sili /TR PHOSPHATE PELLET
10341-343'	LS dkgy micxln dns v shly sili phos
	LS dkgy micxln dns /ABNT blk SH LAM sili ip /ABNT CALC
10343-345,	LS dkgy blk /ABNT PHOS PEL /ABNT CALC FL FRAC & INCL
	LS dkgy f-vf xln dns arg-shly /ABNT PHOS PEL /ABNT CALC FL FRAC & INCL
10345-347'	LS dkgy vf-micxln dns arg /ABNT PHOS /ABNT CALC INCL & FL FRAC
	LS dkgy blk micxln dns /ABNT PHOS PEL v arg CALC FL FRAC
10347-349'	SH blk hd slcalc v PHOS CARB ip
	SH blk v hd sili CALC ip CARB v PHOS
10349-351	LS dkgy blk micxln dns v shly /sm grdg to lm SH /ABNT SH INCL/ ABNT CALC FL FRAC - CORE BADLY BROKEN UP

SOHIO PETROLEUM COMPANY

RED KNOLL 33-B

SE/NW SECTION 33, T13N, R7E

RICH COUNTY, UTAH

GEOLOGIC REPORT

BY

JACK ROBISON

ROCKY MOUNTAIN GEO-ENGINEERING COMPANY

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WELL SUMMARY

OPERATOR:	SOHIO PETROLEUM COMPANY
WELL NAME:	RED KNOLL 33-B
LOCATION:	SE/NW SECTION 33-T13N-R7E 1780' FWL - 1500' FNL
COUNTY:	RICH
STATE:	UTAH
ELEVATION:	6456' GL - 6478' KB
CONTRACTOR:	BOMAC DRILLING COMPANY
RIG TYPE:	GD 800
TOOL PUSHER:	STEVE BARBER
COMMENCED:	25 NOVEMBER 1983
COMPLETED:	20 MAY 1983
HOLE SIZE:	17½" TO 2515', 12¼" TO 7500', 8½" TO T. D.
CASING RECORD:	13 3/8" K55, 68#, TO 2513'; 9 5/8" TO 7636'
CORES:	TERRATEK
WELLSITE GEOLOGY:	JACK ROBISON ROCKY MOUNTAIN GEO-ENGINEERING COMPANY
MUD LOGGING: ENGINEERS:	ROCKY MOUNTAIN GEO-ENGINEERING COMPANY GORDON DIRST, ART CURTIS
ELECTRIC LOGGING: LOGS RUN:	SCHLUMBERGER WELL SERVICE DIL/FSL, LDT, FDC/CNL/NEUTRON, BHC SONIC, DIL/FSL/GR, HDT/CYBERDIP, VELOCITY SURVEY
OBJECTIVES:	TRIASIC-DINWOODY, PERMIAN-PHOSPHORIA, MISSISSIPIAN
STATUS:	PLUG & ABANDON

SOHIO PETROLEUM COMPANY
RED KNOLL 33-B
SE/NW SECTION 33, T13N, R7E
RICH COUNTY, UTAH

WELL CHRONOLOGY

DATE & # DAYS	DEPTH	FTG/ DAY	DAILY OPERATIONS
11/25/82 (1)	60	-0-	THAWING OUT LINES IN PREPERATION TO DRILL 5° CLOUDY
11/26/82 (2)	621	561	DRLG IN WASATCH FM 12¼" HOLE - PACKED BOT HOLE ASSEMBLY -12° CLEAR
11/27/82 (3)	942	321	DRLG - TOP TWIN CREEK FRM 780' - ENCOUNTERED WATER FLOW @ 670' FROM A SAND IN WASATCH FM -5°
11/28/82 (4)	1140	198	TIH TO CHANGE NOZZELS IN BIT FROM 18's TO 12's - NO PROBLEMS - NO SHOWS 15° CLOUDY
11/29/82 (5)	1402	262	DRLG - NO SHOWS 20° SNOW
11/30/82 (6)	1653	247	AA 22° SNOW
12/1/82 (7)	1824	171	DRLG - TWIN CREEK /NB#4 - DEV @ 1800' 1° - 9.3 MUD WT - HOLDING WTR FLOW 21° SNOW
12/2/82 (8)	1983	159	DRLG - NO PROBLEMS 20° SNOW-WINDY
12/3/82 (9)	2078	95	PICK UP FISH TOOLS - TWIST OFF PIN ON 1ST JT ABOVE DRILL COLLARS 15° CLEAR
12/4/82 (10)	2186	108	DRLG - RECOVER FISH - IN TWIN CREEK - NO SHOWS 15° FOG
12/5/82 (11)	2310	124	DRLG 17° CLOUDY
12/6/82 (12)	2402	92	DRLG - NO PROBLEMS 20° CLOUDY
12/7/82 (13)	2497	95	AA 18° SNOW
12/8/82 (14)	2515	18	OPENING HOLE TO 17½" - RUN E-LOGS: DIL/FSL/GR, FDC/CNL/ NEUTRON, BHC SONIC/GR - LOGGER DEPTH 2497', SLM=2509' - WILL OPEN HOLE TO 17½", RUN 13 3/8" CSG - INSTALL BOP's & DRL OUT /12¼" BIT. GEOLOGIST & MUD LOGGER WILL BE ON STANDBY UNTIL DRLG IS RESUMED
12/20/82 (26)	2514	-0-	NIP UP - 12/9 THRU 12/19 OPEN HOLE, RUN CSG, CMT & NIP UP 13 3/8", K55, 68# CSG SET @ 2513' - HOLE FROM 2509-2514' MADE W/17½" BIT 20° CLOUDY
12/21/82 (27)	2535	21	DRLG 20° CLOUDY
12/22/82 (28)	2562	27	PICK UP BHA - PUT RUBBERS ON EACH JT DP - RUN IN HOLE W/ CSG SCRAPER - RUN BOND LOG W/GR/CAL 28° SNOW
12/23/82 (29)	2786	224	DRLG - RUN LEAK OFF TEST=EQUIV 10# MUD-160 PSI - NO SHOWS 28° WIND-SNOW

RED KNOLL 33-B
WELL CHRONOLOGY CONTINUED

12/24/82 (30)	3099	313	DRLG - RUN DIRECTIONAL SURVEYS, 2994=3°S81°E CLOSURE 117' S67°58"E - NO PROBLEMS	14° WIND-SNOW
12/25/82 (31)	3350	251	DRLG GYP SPRINGS - NO SHOWS	-13° CLEAR
12/26/82 (32)	3471	121	DRLG - TOP NUGGET 3425' - NO SHOWS - 2 3/4° DUE EAST @ 3334'	-14° CLEAR
12/27/82 (33)	3562	91	DRLG - NO SHOWS	5° LT SNOW
12/28/82 (34)	3804	242	DRLG - NO SHOWS	-15° CLEAR
12/29/82 (35)	3898	94	TOH TO REMOVE DP RUBBERS - RIG OFF LEVEL CUTTINGS GOING THRU BOP'S	-25° CLEAR
12/30/82 (36)	4028	130	DRLG - NO SHOWS	-23° CLEAR
12/31/82 (37)	4131	103	DRLG - LEVEL RIG	-20° CLEAR
1/1/83 (38)	4182	51	DRLG - 757' NUGGET DRLD - NO PROBLEMS - NO SHOWS	-9° FOG
1/2/83 (39)	4265	83	PUMP PILL PREP TO TOH	-20° CLEAR
1/3/83 (40)	4358	93	DRLG	-10° PT CLOUDY
1/4/83 (41)	4482	124	TIH W/NB#18 F7	18° SNOW
1/5/83 (42)	4552	70	DRLG - 1127' NUGGET - NO SHOWS	33° CLOUDY
1/6/83 (43)	4617	65	TIH W/NB#19 J55R	31° PC
1/7/83 (44)	4667	50	DRLG - TOP ANKAREH 4628 - NO SHOWS IN 1203' NUGGET	32° CLOUDY
1/8/83 (45)	4812	145	DRLG - NO PROBLEMS	29° CLOUDY
1/9/83 (46)	4857	45	DRLG W/NB#21 J-33	16° WIND-SNOW
1/10/83 (47)	5023	166	DRLG - 4894=4°N80E - 154' S74°30"E	25° PC
1/11/83 (48)	5141	118	TOH W/BIT #21	3° CLEAR
1/12/83 (49)	5200	59	RUN SURV PREP TO TOH W/BIT ##22	-3° CLEAR
1/13/83 (50)	5222	22	DRLG - SOME PROBLEMS W/TORQUE - ADD 100 BLLS DIESEL IN MUD, APPROX 5% - SHOWS 15 UNITS GAS ON MUD LOGGER	-4° CLEAR
1/14/83 (51)	5280	58	DRLG - TOH FOR WASH OUT IN DP - HOLE 25 STDS IN - NO SHOWS	0° CLEAR
1/15/83 (52)	5418	138	DRLG - ANOTHER TOH FOR WASH OUT IN DP - 43 STDS IN	0° CLEAR

1/16/83 (53)	5504	86	DRLG	-2° CLEAR
1/17/83 (54)	5565	61	DRLG ANKAREH - NO SHOWS	14° LT SNOW
1/18/83 (55)	5706	141	DRLG - NO PROBLEMS	18° CLOUDY
1/19/83 (56)	5749	43	TOH TO FIND WASH OUT	18° CLOUDY
1/20/83 (57)	5855	106	DRLG - SHOCK SUB LEAKING - NO SHOWS	11° PC
1/21/83 (58)	5992	137	DRLG - 5916=5°N53E- 219' S86°38"E	15° LT SNOW
1/22/83 (59)	6087	95	DRLG	10° OVERCAST
1/23/83 (60)	6159	72	TOP TRIASIC THAYNES - PICKED @ 6098' - NO SHOWS	27° SNOW
1/24/83 (61)	6245	86	DRLG - NO PROBLEMS	12° CLOUDY
1/25/83 (62)	6342	97	DRLG - NO SHOWS	25° CLOUDY
1/26/83 (63)	6363	21	TIH W/NEW DP	20° CLOUDY
1/27/83 (64)	6475	112	DRLG	13° CLOUDY
1/28/83 (65)	6615	140	DRLG W/BIT #30 F4	25° SNOW
1/29/83 (66)	6745	130	DRLG	3° PC
1/30/83 (67)	6796	51	DRLG	18° LT SNOW
1/31/83 (68)	6872	76	DRLG W/NB#31 F4 - HOLD UP ON WT TO CONTROL DEV - 6802=6°N50E - 285' N81°42"E	6° CLOUDY
2/1/83 (69)	6937	65	DRLG - NO SHOWS	-5° CLEAR
2/2/83 (70)	6972	35	DRLG W/NB#32 J44	-10° CLEAR
2/3/83 (71)	7046	74	DRLG - NO PROBLEMS	-13° CLEAR
2/4/83 (72)	7156	110	DRLG - NO SHOWS	-12° CLEAR
2/5/83 (73)	7268	112	DRLG - NO SHOWS	-12° CLEAR
2/6/83 (74)	7373	105	AA	-14° CLEAR
2/7/83	7450	77	DRLG - RUN #33 (RR#20) J-44 IN @ 7422' - NO TRIP GAS	11° LT SNOW

SOHIO PETROLEUM COMPANY
RED KNOLL 33-B
WELL CHRONOLOGY CONTINUED

2/8/83 (76)	7571	121	DRLG - NO PROBLEMS	15° SNOW
2/9/83 (77)	7640	69	RUN E-LOGS - COMPLETED DLL/FSL/GR, - RUNNING BHC-SONIC/GR	28° CLOUDY
2/10/83 (78)	7640	-0-	LAY DN DC - GET READY TO RUN 9 5/8" CSG - TAKING LOGS TO SLC AIRPORT & SEND TO DENVER & CASPER	
2/11/83 (79)	7640	-0-	WOC & NIP UP CSG RUN TO 7636'	
2/12/83 (80)	7640	-0-	PICK UP 6 3/4" DC - WILL PRESS TEST IN PREP TO DRL	
2/13/83 (81)	7684	44	RUN CMT BOND LOG - COMPLETE CSG CALIPER LOG & LEAK OFF TEST - TESTED W/800 PSI SURFACE TO MAKE EQUIVALENT 10.5 MUD WT - HELD 15 MIN	23° SNOW
2/14/83 (82)	7738	54	DRLG IN THAYNES - NO SHOWS	26° CLOUDY
2/15/83 (83)	7866	128	DRLG - NO PROBLEMS	8° FOG
2/16/83 (84)	7917	51	DRLG - @ 7839=7½°N48E W/A CLOSURE OF 376' N72°20"E	19° CLOUDY
2/17/83 (85)	7966	49	DRLG W/BIT #36 J55R IN 7924' THAYNES FM - NO SHOWS	4° CLEAR
2/18/83 (86)	8035	69	SURVEY AFTER TRIP BECAUSE OF COCKED CORROSION RING IN TOP OF DC - UNABLE TO GET TOOL IN TO RUN SURV	15° CLOUDY
2/19/83 (87)	8130	95	DRLG TOP OF WOODSIDE @ 7978' - NO SHOWS	27°
2/20/83 (88)	8207	77	TOH TO LOOK FOR WASH OUT - LOST 500 LBS PUMP PRES	0° CLEAR
2/21/83 (89)	8278	71	DRLG - HOLE WAS IN CENTER OF BODY OF MONEL DC	14° CLEAR
2/22/83 (90)	8419	141	DRLG - SOME TT HOLE PROBLEMS - LOWER PUMP PRES TO CORRECT - NO SHOWS	3° CLEAR
2/23/83 (91)	8560	141	DRLG	3° CLEAR
2/24/83 (92)	8653	93	DRLG W/BIT #38 HPSM	6° CLEAR
2/25/83 (93)	8780	127	DRLG WOODSIDE	11° CLOUDY
2/26/83 (94)	8894	114	DRLG - NO SHOWS OR PROBLEMS	22° CLOUDY
2/27/83 (95)	8996	102	TOH FOR NB#39	8° CLEAR
2/28/83 (96)	9063	67	DRLG WOODSIDE	18° FOG
3/1/83 (97)	9144	81	DRLG - DIRECTION OF HOLE TURNING TO NORTH @ 9090 2' 4 3/4°N2E	33° C
3/2/83 (98)	9260	116	DRLG WOODSIDE - 918'=4½°N9W	2,

RED KNOLL 33-B
WELL CHRONOLOGY CONTINUED

3/3/83 (99)	9389	129	DRLG WOODSIDE - 9310=4 3/4°N27W	22° CLOUDY
3/4/83 (100)	9515	126	DRLG WOODSIDE - 9435=6½°N49W	20° CLEAR
3/5/83 (101)	9549	34	DRLG 9465=7¼N51W - LOOKED @ ONE DINWOODY TYPE LITHOLOGY SPL @ 9530' - STILL GAINING ANGLE & TURNING LEFT OR WEST	31° CLOUDY
3/6/83 (102)	9605	56	CIRC COND TO CUT CORE #1 - DINWOODY TOP 9555' - NO SHOWS TO CORE POINT	19° SNOW 1"
3/7/83 (103)	9618	13	TOH W/CORE #1 - JAMMED W/13' CUT 9567=8 3/4N56W	20° CLOUDY
3/8/83 (104)	9636	18	TOH W/CORE #2 - JAMMED W/18' CUT - NO SHOWS	22° CLOUDY
3/9/83 (105)	9697	61	DRLG - RECOV 17.8' - NO SHOWS - DINWOODY	29° CLOUDY
3/10/83 (106)	9738	41	DRLG - NO SHOWS - NO PROBLEMS	19° CLEAR
3/11/83 (107)	9831	93	DRLG DINWOODY - 9777=9½N60W - 483' N54°31"E	25° PC
3/12/83 (108)	9860	29	DRLG - NO SHOWS	17° CLEAR
3/13/83 (109)	9947	87	DRLG - 9908=13°N65W - 472' N51°45"E	30° PC
3/14/83 (110)	10042	95	CIRC BOT UP IN PREP TO TOH TO CHG BHA & BIT @ 10001= 18° N70W - 459'N48°55"E - HOLE HAS TURNED FROM DRLG ENE TO WNW - NO SHOWS IN DINWOODY	24° SNOW
3/15/83 (111)	10062	20	DRLG - PICK UP A 65' PENDULUM TO TRY CORRECTING DEV - NO SURVEY YET	20° CLOUDY
3/16/83 (112)	10121	59	DRLG DINWOODY - STILL DRLG WNW @ 10079-TVD 10035-23° N70W CLOSURE 446' N45°29"E	21° SNOW
3/17/83 (113)	10151	30	DRLG - NO SHOWS	20° SNOW-WIND
3/18/83 (114)	10189	38	DRLG - TOP PHOSPHORIA @ 10162 - NO SHOWS OR PROBLEMS	20° SNOW
3/19/83 (115)	10203	14	DRLG - NO SHOWS	18° SNOW
3/20/83 (116)	10306	103	DRLG - NO H_2S - NO SHOWS	-6° CLEAR
3/21/83 (117)	10331	30	SLM - CORRECTED DEPTH FROM 10336 - RUN CORE #3	0° CLEAR
3/22/83 (118)	10342	11	RUN CORE #4 - NO SHOWS	19° SNOW
3/23/83 (119)	10354	12	PICK UP BHA TO START DRLG	22° SNOW
3/24/83 (120)	10412	58	DRLG - NO SHOWS	10° CLOUDY

3/25/83 (121)	10505	93	DRLG - SOME SMALL GAS INCREASES FROM THIN BEDS BIT SHALE	21° SNOW
3/26/83 (122)	10631	126	DRLG PHOSPHORIA - NO SHOWS	21° SNOW
3/27/83 (123)	10710	79	TOH FOR NB#48 & CK DC - @ 10658'-24½°N68W - TOP PENNSYLVANIAN WELLS-WEBER @ 10651' - NO SHOWS	12° CLEAR
3/28/83 (124)	10762	52	DRLG - NO SHOWS OR PROBLEMS	15° SNOW
3/29/83 (125)	10794	32	RUN E-LOGS - COMPLETED DLL-MFSL/GR-CAL & IN PREP TO RUN FDC-CNL-DENSITY	13° CLOUDY
3/30/83 (126)	10794	-0-	RUN IN HOLE TO COND FOR VEL SURVEY - LOGGING TD 10774' - COMPLETE RUNNING FDC-CNL-DENSITY, LDT-NGT, HDT W/CYBERDIP, BHC-SONIC - PROBLEMS W/NEUTRON DENSITY TOOL - 65° NW DIP @ BOT OF LOGGED INTERVAL	35° RAIN
3/31/83 (127)	10794	-0-	DIA-LOG RUNNING CSG INSPECTION LOG - COMPLETED VELOCITY SURVEY	20° SNOW
4/1/83 (128)	10821	27	DRLG - NO SHOWS	22° SNOW
4/2/83 (129)	10864	43	DRLG WELLS - NO SHOWS	24°
4/3/83 (130)	10909	45	DRLG	18° WIND-SNOW
4/4/83 (131)	10935	26	REPACK KELLY SWIVEL	13° WIND-SNOW
4/5/83 (132)	10956	21	DRLG	10° PC
4/6/83 (133)	11001	45	TOH TO RECOV SURV TOOL -PRESS TEST BOP'S	-2° CLEAR
4/7/83 (134)	11015	14	TIH W/NB#51 - TT HOLE	5° CLEAR
4/8/83 (135)	11094	79	DRLG WELLS - NO SHOWS	22° CLOUDY
4/9/83 (136)	11117	23	REAM TO BOT AFTER TRIP FOR NB#52 - PULL 70-75,000 OVER PIPE WT	15° CLEAR
4/10/83 (137)	11174	57	DRLG - PULL 60-70,000 OVER & VERY HIGH TORQUE - ADD MICA TO REDUCE TORQUE	
4/11/83 (138)	11279	105	DRLG - DUE TO HIGH TORQUE & TT HOLE, DIESEL ADDED TO MUD APPROX 3-4%	25° SNOW
4/12/83 (139)	11350	71	DRLG - NO SHOWS - DEV @ 11279' 33°N75W - TRUE VERTICAL DEPTH 11141'	23° SNOW
4/13/83 (140)	11466	116	DRLG - TOP AMSDEN @ 11395'	10° OVERCAST
4/14/83 (141)	11562	96	DRLG - @ 11514 TVD 11319-36½N74W - CLOSURE=568' N26°47"W	2° CLEAR
4/15/83 (142)	11570	8	DRLG AMSDEN - NO SHOWS - WORK TT HOLE & REAM FOR TRIP FOR NB - PROBLEM W/KEY SEAT STICKING @ ABOUT 10,000'	5° CLEAR

4/16/83 (143)	11672	102	DRLG - @ 11570 - 38°N74W	7° CLEAR
4/17/83 (144)	11756	84	CIRC IN PREP TO TOH	14° CLEAR
4/18/83 (145)	11783	27	DRLG AFTER 18 HR TRIP OUT	25° CLOUDY
4/19/83 (146)	11897	114	DRLG - @ 11820=41°N78W-TVD 1154 - UNUSUAL LG AMT OF ANHY FOR AMSDEN FM - DRLD PRED ANHY SINCE 11780'	35° RAIN
4/20/83 (147)	12002	105	DRLG	30° PC
4/21/83 (148)	12079	77	TOH - SPLS INDICATE DRLG NUGGET - NO SHOWS	30° RAIN
4/22/83 (149)	12095	16	DRLG - HAD TO REAM FROM 10575-11800' AFTER TRIP	35° RAIN
4/23/83 (150)	12185	90	DRLG PRED RED SH, SLTST & VFG SS (COULD BE ANKAREH - @ 12075'-TVD 11738' 45½N81W - 859' N46°09W	27° FOG
4/24/83 (151)	12276	91	DRLG - HOLE ANGLE STILL INCRG-@ 12199'TVD 11822=48°N78W-STILL DRLG RED BEDS	26° CLEAR
4/25/83 (152)	12297	21	TOH - WASH OUT IN JARS - WILL RUN SONIC/GAMMA RAY & DIPMETER - BIT STUCK @ 11925'-TOP OF DC @ 11075' - PULL FREE TT UNTIL BIT REACHED 10809 & DC @ 9959 STUCK @ THIS POINT-WORK FREE - REAM UNTIL BIT REACHED 10344 & TOP OF DC @ 9494-DEV @ 12199'-48°N78W	27° SNOW
4/26/83 (153)	12297	-0-	LOGGING STOPPED @ 10205 COMING OUT - WENT IN W/BIT & REAMERS TO COND HOLE	14° CLEAR
4/27/83 (154)	12297	-0-	LOG TOOL STOPPED @ 10294' - TEMP STUCK AT 10005' COMING OUT-BACK ON BOT W/BIT & NO REAMERS (SLICK) - MIX SOME HIGH VIS SWEEPS & SPOT 200 BBL 200 VIS PIL ON BOT	20° PC
4/28/83 (155)	12297	-0-	LOG OUT W/DIL/GR - DEPTH LOGGER 12284 HAVE COMPLETED BHC-SONIC/GR, HDT & CYBERDIP - SLM=12295 - NO PROBLEMS	21° CLOUDY
4/29/83 (156)	12297	-0-	TIH W/BIT TO DRL - COMPLETED DLL/GR & FDC-CNL DENSITY - DIPMETER SHOWS DEV ON BOT TO BE 50° W/FM DIPPING EAST @ 60-65°	31° CLOUDY
4/30/83 (157)	12387	90	DRLG AMSDEN - NO SHOWS	30° SNOW
5/1/83 (158)	12463	76	DRLG MISSISSIPPIAN-BRAZER TOP 12394' - TVD 11949 - NO SHOWS - NO PROBLEMS	32° RAIN-SNOW
5/2/83 (159)	12540	77	DRLG - NO SHOWS	32° RAIN-SNOW
5/3/83 (160)	12549	9	TOH FOR WASH OUT STUCK W/BIT @ 10969'-TOP OF DC @ 10080 SPOT 40 BBLS E-Z SPOT - PIPE FREE - REAM OUT THRU KEY SEAT	30° CLOUDY
5/4/83 (161)	12549	-0-	TIH - REAM W/KEY SEAT WIPER @ 9949', 3 PT @ 8065'	20° CLEAR
5/5/83 (162)	12549	-0-	TOH TO CHG BHA - PUT A WTR MELON MILL 685' ABV BIT - TIH & REAM TO BOT	34° RAIN

5/6/83 (163)	12549	-0-	REAM W/MILL @ 10031 - HAVE REAMED 1166'	28° SNOW
5/7/83 (164)	12549	-0-	REAM 30' OFF BOT	22° CLEAR
5/8/83 (165)	12624	75	DRLG - TOH CHG BHA - PUT ON BIT TO DRL	26° CLEAR
5/9/83 (166)	12712	88	DRLG - NO SHOWS	26° SNOW
5/10/83 (167)	12803	91	CIR & COND TO RUN FINAL LOGS	20° SNOW
5/11/83 (168)	12803	-0-	TWIST OFF WHILE REAMING UP COMING OUT OF HOLE - WENT BACK IN W/OVERSHOT & RECOVER 21 JT DP	26° SNOW 8"
5/12/83 (169)	12803	-0-	FISH - GIH W/OVERSHOT	20° SNOW 14"
5/13/83 (170)	12803	-0-	FISH - COME OUT W/EMPTY OVERSHOT-WOULD NOT HOLD ONTO PIPE	5° CLEAR
5/14/83 (171)	12803	-0-	FISH - WORK STUCK PIPE	10° CLEAR
5/15/83 (172)		-0-	FISH - TOH - BACK OFF 2 JTS ABV OVERSHOT - TOP OF FISH @ 9798' - TRY TO SCREW IN & JAR OUT	20° PC
5/16/83 (173)		-0-	FISH - RECOV TOP FISH - TIH - SCREW INTO FISH @ 11311' - JAR ON FISH	32° SNOWING
5/17/83 (174)		-0-	FISH - PUMP W/HALLIBURTON @ 8000 LBS JARRING	25° SNOW
5/18/83 (175)		-0-	TIH "SLICK" TO COND FOR LOGS - RECOVER FISH	28° SNOW
5/19/83 (176)		-0-	TOH TO RUN LOGS	33° SNOW-RAIN
5/20/83 (177)		-0-	RUN BHC-SONIC-GR & LDT-CNL - @ 5:30 PM LOGS TAKEN TO SLC AIRPORT - RUN VELOCITY SURVEY	34° PC
5/21/83 (178)		-0-	PLUG & ABANDON WELL - GEOLOGIST & LOGGERS RELEASED THIS DAY	35° CLEAR

BIT RECORD

WELL NAME RED KNOLL 33-B
LOCATION SE/NW SEC 33 T13N R7E RICH CO. UTAH
CONTRACTOR BOMAC DRILLING COMPANY
RIG No. 44
DATE SPUDDED NOVEMBER 25, 1983
DATE RIG RELEASED

DRILL PIPE: SIZE O.D. 4½ WT. 16.60 TYPE T.J. IF
SIZE O.D. WT. TYPE T.J.
DRILL COLLARS: No. O.D. I.D. TYPE T.J.
No. O.D. I.D. TYPE T.J.
No. O.D. I.D. TYPE T.J.
No. O.D. I.D. TYPE T.J.

BIT NO.	SIZE	MAKE	TYPE	SERIAL NO.	NOZZLE SIZES	DEPTH OUT	FEET	HOURS	~~XXXXXXX~~ FT/HR	NO. of D.C.'s	WT. 1000#	RPM	DULL COND T	B	G	REMARKS
1	12¼	HTB	OGC3aj	WA 998	3-18	815	755	29	26.1		15	65	8	8	I	
2	"	STC	DGJ	DS 1658	3-18	1010	195	17¼	11.2		15	65/70	5	5	I	TOP TWIN CREEK 785
3	"	HTC	J-11	575RG	3-12	1734	724	62.5	11.6		15/20	65/90	6	2	I	
4	"	STC	SDGH	CP0597	3-14	1995	261	33.5	7.8		20/25	100	2/	2/	1/8	
5	"	REED	Y-21J	T59730	3-14	2077	82	11¼	7.3		25	120	4	6	1/8	
6	"	SEC	S4TJ	267963	3-15	2295	218	28¼	7.7		25	90	4	6	I	
7	"	HTC	J-4	EM 897	3-14	2411	116	29 3/4	3.9		25	100	3	3	I	
RR 4	"	STC	SDGH	CP0597	3-14	2515	104	22½	4.6		25	100	4	4	I	
1	17½	GRANT	HOLEOPENER		3-24	993	933	41¼	22.6		15	90	4	5	I	
2	"	"	"		3-16	1202	209	25½	8.2		20	100	3	3	I	
3	"	"	"		3-16	1472	270	23	11.8		25	80	3	3	I	
4	"	"	"		3-18	2221	749	55 3/4	13½		35	60	4	8	¼	
8	"	STC	DGJ	SAE120	3-18	2309	88	13¼	6.6		30	60	4	4	I	
5	"	GRANT	HOLEOPENER		3-18	2455	146	34	4.3		25	80	4	5	I	
9	"	STC	DGJ	SAL374	3-18	2514	59	7½	7.9		30	100	3	4	I	
10	12¼	REED	S-13GJ	L33815	3-15	2562	48	11½	4.2		10	80				
11	"	SEC	S84F	145578	2-15 1-13	3384	822	63 3/4	12.9		40	50	5	3	I	GYP SPRINGS 3149
12	"	HTC	J55R	M6921	3-14	3547	163	24¼	6.7		35	48	6	4	1/8	NUGGET 3427
13	"	REED	HPH	Y25642	3-14	3882	335	38¼	8.8		40	52	6	3	1/8	
14	"	REED	HPH	Y25643	3-14	4135	253	47	5.4		40	52	6	4	1/8	
15	"	SEC	H100F	135153	2-12 1-11	4265	130	35¼	3.8		40	52	6	4	1/8	

BIT RECORD

WELL NAME
LOCATION
CONTRACTOR
RIG No.
DATE SPUDDED
DATE RIG RELEASED

DRILL PIPE: SIZE O.D. ____ WT. ____ TYPE T.J. ____
SIZE O.D. ____ WT. ____ TYPE T.J. ____
DRILL COLLARS: No. ____ O.D. ____ I.D. ____ TYPE T.J. ____
No. ____ O.D. ____ I.D. ____ TYPE T.J. ____
No. ____ O.D. ____ I.D. ____ TYPE T.J. ____
No. ____ O.D. ____ I.D. ____ TYPE T.J. ____

BIT NO.	SIZE	MAKE	TYPE	SERIAL NO.	NOZZLE SIZES	DEPTH OUT	FEET	HOURS	~~CUM. HOURS~~ FT/HR	NO. of D.C.'s	WT. 1000#	RPM	DULL COND T	DULL COND B	DULL COND G	REMARKS
16	"	STC	F7	CP6838	2-12 1-11	4482	217	34 3/4	6.3		40	66	6	4	1/16	
17	"	STC	F7	CP8222	2-12 1-11	4617	135	36	3.8		40	64	6	4	¼	ANKAREH 4619
18	"	HTC	J55R	MD143	2-11 1-12	4649	32	11 3/4	3.0		40	72	4	3	I	
19	"	HTC	J44	266AG	2-11 1-10	4815	166	27½	6.0		40	82	3	3	I	
20	"	HTC	J33	MC294	"	5141	326	52 3/4	6.2		40	60	6	4	1/8	
21	"	STC	F3	CR6496	3-11	5200	59	16	3.7		40	55	4	3	1/8	
22	"	HTC	J11	MP520	3-11	5230	30	18	1.7		40	60	8	5	I	
23	"	REED	FP63J	937852	3-11	5438	208	33	6.3		40	52	4	4	I	
24	"	REED	FP63J	A15542	3-11	5520	82	19½	4.23		40	52	7	4	I	
25	"	REED	HPHJ	Y25680	3-11	5724	204	40	5.1		25/40	72	3	3	I	
26	"	STC	F4	CR6560	3-11	6079	355	59	6.0		30/40	72	8	5	1/8	
27	"	STC	F4	CR6558	3-11	6120	51	8.0	6.4		30	66	6	4	I	THAYNES 6062
28	"	HTC	J44	278AG	3-11	6353	233	59½	3.9		25	72	4	6	I	
29	"	STC	F4	CZ 2290	3-11	6792	429	73	5.9		25	74	4	4	I	
30	"	STC	F4	CA 2294	3-11	6939	147	47½	3.1		20	74	7	4	1/8	
31	"	HTC	J44	AL481	3-11	7422	483	106	4.6		30	74	4	4	I	
RR19	"	HTC	J44	266AG	3-11	7640	total 384	65	5.9		25	90	4	4	I	
32	8½	REED	S21GJ	Y2348	3-11	7684	44	8	5.5	21	15	68	3	3	I	
33	"	REED	HPSMJ	T63526	3-11	7896	212	39½	5.5	21	15	80	2	2	I	
34	"	HTC	J44	AL070	2-11 1-10	7924	28	10½	2.7	21	15	76	3	4	I	
35	"	HTC	J55R	ZF120	2-11 1-10	8207	283	68½	4.2	21	20	90	6	6	I	WOODSIDE 7978

BIT RECORD

PAGE 3 OF 4

WELL NAME
LOCATION
CONTRACTOR
RIG No.
DATE SPUDDED
DATE RIG RELEASED

DRILL PIPE: SIZE O.D. ____ WT. ____ TYPE T.J. ____
SIZE O.D. ____ WT. ____ TYPE T.J. ____
DRILL COLLARS: No. ____ O.D. ____ I.D. ____ TYPE T.J. ____
No. ____ O.D. ____ I.D. ____ TYPE T.J. ____
No. ____ O.D. ____ I.D. ____ TYPE T.J. ____
No. ____ O.D. ____ I.D. ____ TYPE T.J. ____

BIT NO.	SIZE	MAKE	TYPE	SERIAL NO.	NOZZLE SIZES	DEPTH OUT	FEET	HOURS	~~XXXHOURS~~ ft/hr	NO. of D.C.'s	WT. 1000#	RPM	DULL COND T	B	G	REMARKS
CORR. 37	8½	STC	F4	CW7494	2-11 1-10	8630	423	67¾	6.2	21	28	72	6	4	1/8	
38	"	REED	HPSMJ	T63522	3-11	8996	366	65	5.6	21	30	70	5	3	I	
39	"	STC	F4	CE9884	3-11	9522	526	83	6.3	21	32	70	5	6	I	
40	"	HTC	J44	AL216	3-11	9605	83	26½	3.1	21	15	70	3	3	I	DINWOODY 9555
41	"	CHRIS	MC 23 DIAMOND	3W8848	2-13 1-14	9636	31	20	1.5	21	20	36	GOOD			
42	"	HTC	J44	AN137	3-11	9706	70	19	3.7	21	28	85	7	4	I	
43	"	SEC	M89TF	161212	3-11	9858	152	39½	3.8	21	25	62	3	3	I	
44	"	REED	HPMH	Y27981	3-11	10,042	184	43	4.27	21	15/28	70	3	3	I	
45	"	REED	HPMH	Y27999	3-11	10,200	158	77	2.05	21	20	70	3	3	1/8	PHOSPHORIA 10,162
46	"	HTC	J44		3-11	10,331	131	27½	4.76	21	20/28	68	6	4	¼	
RR 41	"	CHRIS	MC 23 DIAMOND	3W8848		10,354	28	28½	.98	21	30	48	GOOD			
47	"	HTC	J55R	ZF 127	2-13 BLANK	10,710	356	72½	4.91	21	25/22	68	7	6	1/16	WELLS - WEBER 10,6[illegible]
48	"	REED	HPH	Y23771	12-13 BLNK	10,794	84	24	3.5	21	32	62	5	3	¾	
49	"	STC	F7	CP 5947	3-11	10,935	141	70	2.0	21	25	50	6	4	¾	
50	"	HTC	J77	ZC 541	3-11	11,015	80	28	2.9	21	20	50	4	4	I	
51	"	STC	F7	CW 6135	2-11 1-10	11,117	102	27	3.8	21	25	50	4	3	I	
52	"	REED	HPHJ	A24634	"	11,313	196	37	5.3	21	32	52	8	8	1"	
53	"	REED	HPHJ	L37061	"	11,566	253	51	5.0	21	35	52	5	4	1/8	AMSDEN 11,385
54	"	SEC	H88F	926927	3-11	11,756	190	45	4.2	21	35	50	4	4	I	
55	"	STC	F5	CL6319	3-11	12,079	323	71½	4.5	21	35	65	6	3	1/8	
56	"	STC	F57	CR 0997	3-11	12,297	218	57	3.8	21	25	66	8	8	1/8	

BIT RECORD

WELL NAME
LOCATION
CONTRACTOR
RIG No.
DATE SPUDDED
DATE RIG RELEASED

DRILL PIPE: SIZE O.D. ____ WT. ____ TYPE T.J. ____
SIZE O.D. ____ WT. ____ TYPE T.J. ____
DRILL COLLARS: No. ____ O.D. ____ I.D. ____ TYPE T.J. ____
No. ____ O.D. ____ I.D. ____ TYPE T.J. ____
No. ____ O.D. ____ I.D. ____ TYPE T.J. ____
No. ____ O.D. ____ I.D. ____ TYPE T.J. ____

BIT NO.	SIZE	MAKE	TYPE	SERIAL NO.	NOZZLE SIZES	DEPTH OUT	FEET	HOURS	CUM. HOURS FT/HR	NO. of D.C.'s	WT. 1000#	RPM	DULL COND T	DULL COND B	DULL COND G	REMARKS
RR 33	8½	REED	S21GJ	Y23481	3-11	12,297	0	0	0	21		40	3	3	I	CONDITION HOLE FOR LOG
57	"	HTC	J3	CN968	3-16	12,297	0	0	0	21		40	I	N	C	" " "
58	"	HTC	J55	ZE 490	3-11	12,549	252	67½	3.7	21	25	66	4	4	I	
59	"	REED	HPSM		3-11	12,803	254	65½	3.88	18	30/32	64				TWISTED OFF COMING OUT
																HOLE TO RUN LOGS- FISH

COMPANY NAME: SOHIO PETROLEUM COUNTY: RICH

WELL NAME: RED KNOLL 33-B STATE: UTAH

DEPTH	DEV.	DEPTH	DEV.	DEPTH	DEV.	DEPTH	DEV.	DEPTH	DEV.
108	1° ?	3666	3° N85E	6679	5½ N50E	8042	7¼ N46E	9876	11 3/4 N64W
241	1/2	3762	"	6710	5½ N47E	8134	7¼ N44E	9908	13 N65W
302	"	3877	"	6741	5½ N50E	8229	7 N43E	9939	15 N65W
427	1/2+	3999	3¼ S87E	6802	6 N50E	8322	7¼ N44E	9970	16 N68W
529	1/2	4060	3 3/4 N85E	6834	6 N46E	8414	7¼ N43E	10001	18 N70W
623	"	4155	3½ N89E	6865	5 3/4 N48E	8508	7¼ N41E	10048	MR
745	"	4215	"	6897	5½ N48E	8601	7 N41E	10079	23 N70W
847	"	4308	3½ S88E	6928	5 3/4 ----	8697	6½ N41E	10111	23½ N70W
939	1	4432	3 3/4 N85E	6959	5 3/4 N44E	8789	6½ N38E	10142	23¼ N70W
1001	3/4	4525	4 90E	6991	5 3/4 N49E	8883	6 N33E	10173	23½ N70W
1092	1	4567	4 N89E	7022	5 3/4 N49E	8944	5½ N26E	10214	23 N65W
1213	1	4647	"	7053	6 N47E	9030	5 N13E	10246	22 N57W
1337	1	4708	4 90E	7084	6 N48E	9061	4 3/4 N6E	10286	22½ N61W
1430	1	4801	4¼ N84E	7114	5 3/4 N49E	9092	4 3/4 N2E	10391	22½ N68W
1522	1	4894	4 N80E	7145	6 N44E	9124	4 3/4 N1E	10455	23 N67W
1615	1/2	4985	4 N85E	7161	6 N46E	9155	4½ N5W	10518	23½ N69W
1800	1	5079	4 N83E	7192	5 3/4 N48E	9186	4½ N9W	10581	24½ N68W
1892	1¼	5150	"	7237	5 3/4 N42E	9217	4 3/4 N13W	10658	"
1954	1½	5251	4 N79E	7269	6 N47E	9248	4 3/4 N17W	10727	24½---
2101	2	5343	4 N73E	7300	6 N46E	9310	4 3/4 N27W	10792	25 N68W
2192	1¼	5436	4¼ N65E	7330	6 N44E	9341	5 N32W	10823	25½ N69W
2223	1½	5529	4½ N63E	7360	6¼ N43E	9372	5 N37W	10854	26 N69W
2278	"	5621	4½+ N62E	7392	6+ N41E	9403	5 3/4 N41W	10887	27 N69W
2372	2	5652	4½ N61E	7424	6¼ N43E	9435	6½ N49W	10955	29 N70W
2545	3 3/4	5732	4½ N60E	7455	6¼ N45E	9465	7¼ N51W	10994	29½ N75W
2535	2½ S-53-E	5838	4 3/4 N55E	7486	6¼ N40E	9497	7½ N55W	11026	30½ N76W
2629	2½ S-65-E	5916	5 N53E	7518	6¼ ----	9529	8 N54W	11122	31½ N76W
2721	2½ S-85-E	5991	5 N52E	7548	6¼ N46E	9567	8 3/4 N56W	11153	32 N77W
2815	2 3/4 S-75-E	6071	5¼ N47E	7578	6 3/4 N45E	9593	8½ N58W	11216	32 NO DIRECTIO
2901	3 S-79-E	6164	5 N54E	7653	"	9624	8½ N56W	11247	32¼ N76W
2994	3 S-81-E	6257	5 N52E	7684	6½ N45E	9654	8 3/4 N59W	11297	33 N75W
3119	2 3/4 S-85-E	6355	5 N54E	7746	7 N51E	9686	"	11328	33 N79W
3237	3 S-85-E	6464	5¼ N49E	7776	"	9617	9 N59W	11359	33½ N73W
3334	2 3/4 S-90-E	6536	5¼ 6536	7807	7¼ N51E	9749	9½ N59W	11389	34 N72W
3421	3 S-85-E	6587	5¼ N48E	7839	7½ N48E	9777	9½ N60W	11454	35 N77W
3512	2 3/4 N-89-E	6618	5½ N50E	7886	7½ N46E	9807	10 N61W	11514	36½ N74W
3606	3 1/4 S-85-E	6648	5 3/4 N50E	7980	7½ N44E	9846	10½ N60W	11570	38 N74W

DEVIATION SURVEYS (PAGE 2)

WELL NAME: SOHIO - RED KNOLL 33-B COUNTY: RICH STATE: UTAH

DEPTH	DEVIATION	DEPTH	DEVIATION	DEPTH	DEVIATION	DEPTH	DEVIATION	DEPTH	DEVIATION
11635	39° N76W								
11694	40 N75W								
11757	40½ N78W								
11820	41 N78W								
11944	43 N79W								
12008	44 N78W								
12075	45½ N81W								
12137	46½ N79W								
12199	48 N78W								
12316	50 N79W								
12378	50 No Direction								
12409	50 "								
12440	50 N71W								
12539	50 N72W								
12630	49½ N64W								
12723	50 N69W								

SOHIO PETROLEUM COMPANY
RED KNOLL 33-B
SE/NW SECTION 33, T13N, R7E
RICH COUNTY, UTAH

GEOLOGIC SUMMARY

Sohio Petroleum Company drilled the Red Knoll 33-B in Rich County, Utah to test the oil and gas potential in the Permian "Phosphoria", Pennsylvanian-"Well-Weber" and the Mississippian-"Madison". Spudded 25 November, 1982 in the Tertiary Wasatch Formation, the well was drilled to a total depth of 12,803' in the Mississippian-"Brazer" Formation on 20 May, 1983. Geologic coverage by Jack Robison began at surface.

TERTIARY:

WASATCH FM (SURFACE - 785')

The Tertiary Wasatch consisted of red, gray, orange, brown, yellow, whitish interbedded shale, siltstone, sandstone, conglomerates and thin beds of limestone and dolomite. No hydrocarbon presence was noted in the Wasatch.

JURASSIC:

TWIN CREEK (785' - 3149')

The Twin Creek consisted predominantly of limestone, light gray, argillaceous, shaly with abundant siltstone thin beds in the upper portion, becoming dark gray and dark grayish brown in the middle and lower part. The Twin Creek was overall very shaly with abundant interbedded gray and dark gray shale. There were some oolites found in the middle and lower portions. One good marker in this area was the Boundry Ridge located in the lower-middle portion, which was made up of interbedded red shale, rust-orange siltstone and anhydrite. No hydrocarbon shows were noted in the Twin Creek.

GYPSUM SPRINGS (3149' - 3427')

The Gypsum Springs contained interbedded anhydrite, gypsum, red-orange shale and siltstone. No hydrocarbon shows were present.

TRIASSIC:

NUGGET (3427' - 4619')

In this area the Nugget had a poor-to-fair sorted homogeneous sandstone. The sand was light pink, salmon and white, cross-bedded, very fine to fine grained and subangular. Although the Nugget showed fair to good porosity, no hydrocarbon shows were encountered.

ANKAREH (4619' - 6062')

The Ankareh was primarily red, brown, orange and yellow shale, siltstone and sandstone with abundant thin beds and inclusions of anhydrite. There were no hydrocarbon show observed.

SOHIO PETROLEUM COMPANY
RED KNOLL 33-B
SE/NW SECTION 33, T13N, R7E
RICH COUNTY, UTAH

GEOLOGIC SUMMARY

Sohio Petroleum Company drilled the Red Knoll 33-B in Rich County, Utah to test the oil and gas potential in the Permian "Phosphoria", Pennsylvanian-"Well-Weber" and the Mississippian-"Madison". Spudded 25 November, 1982 in the Tertiary Wasatch Formation, the well was drilled to a total depth of 12,803' in the Mississippian-"Brazer" Formation on 20 May, 1983. Geologic coverage by Jack Robison began at surface.

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NUGGET (3427' - 4619')

In this area the Nugget had a poor-to-fair sorted homogeneous sandstone. The sand was light pink, salmon and white, cross-bedded, very fine to fine grained and subangular. Although the Nugget showed fair to good porosity, no hydrocarbon shows were encountered.

ANKAREH (4619' - 6062')

The Ankareh was primarily red, brown, orange and yellow shale, siltstone and sandstone with abundant thin beds and inclusions of anhydrite. There were no hydrocarbon show observed.

AMSDEN (11,385' - 12,394')

The top 200 feet of Amsden consisted of dolomite, tan, light gray-brown and some buff. In the top 20 feet the limestone was predominantly very dense and cherty.

NOTE: In this report I am calling this formation Amsden; however, due to the light gray, tan and buff dolomite described here, this appears to be Mississippian. After studying the Peter R. Rose Paper on Mississippian Carbonate Shelf Margins of Western United States (Found in 1977 Wyoming Guidebook of the Twenty-Ninth Annual Field Conference), this could be equivalent to the Monroe Canyon limestone or Upper Mississippian.

The bottom 800 feet of what I am calling Amsden consisted of interbeds of red, brown, orange and salmon colored sandstone, siltstone and shale, with abundant white anhydrite and some thick massive beds of white, predominantly firm crystalline anhydrite. (NOTE: If the upper dolomite is to be called Monroe Canyon, then this section is equivalent to the Woodman or Little Flat.)

MISSISSIPPIAN:

BRAZER (12,394' - 12,803')

The Brazer in this well contained medium to dark gray dolomite with abundant interbeds of gray dolomitic siltstone and white crystalline anhydrite. No hydrocarbons were observed in the Brazer.

COMMENTS:

Due to 50° deviation of the hole which caused many problems in the drilling and trips in and out of the hole, it was decided to plug and abandon Red Knoll 33-B.

Red Knoll well was drilled with very little mechanical trouble by Bomac Drilling Company, Rig #44. The total cooperation by all of the drilling crew was much appreciated by all others involved with the well. It was also my pleasure to have the opportunity to work with all of Sohio Petroleum Company's people involved with this project.

If I can be of any further assistance in the final evaluation of zones encountered, please feel free to contact me. Our company greatly appreciates this opportunity to be of service and we welcome the opportunity to work with you again in the near future.

My personal thanks,

Jack Robison

TerraTek Core Services, Inc.

TIGHT HOLE

Sohio Petroleum Company

Red Knoll No. 33-B Well
Rich County, Utah

TTCS File No. 325

Core No.	Interval	Formation
1	9606 - 9618	Dinwoody
2	9618 - 9636	Dinwoody
-	9636 - 10,331	Drilled Interval
3	10,331 - 10,336	Phosphoria
4	10,336 - 10,354	Phosphoria

RECEIVED
APR 18 1983
DIVISION OF
OIL, GAS & MINING

• 360 Wakara Way • Salt Lake City, Utah 84108 • (801) 584-2480
• 920 Central Avenue • Suite #2 • Billings, Montana 59102 • (406) 256-0371

TerraTek Core Services, Inc.

TIGHT HOLE

Sohio Petroleum Company

Red Knoll No. 33-B Well
Rich County, Utah

TTCS File No. 325

Core No.	Interval	Formation
1	9606 - 9618	Dinwoody
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3	10,331 - 10,336	Phosphoria
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• 360 Wakara Way • Salt Lake City, Utah 84108 • (801) 584-2480
• 920 Central Avenue • Suite #2 • Billings, Montana 59102 • (406) 256-0371

TERRA TEK CORE SERVICES INC.
360 Wakara Way, SLC Utah 84108 (801) 584-2480

SOHIO PETROLEUM COMPANY
Red Knoll #33-B

TEKLOG

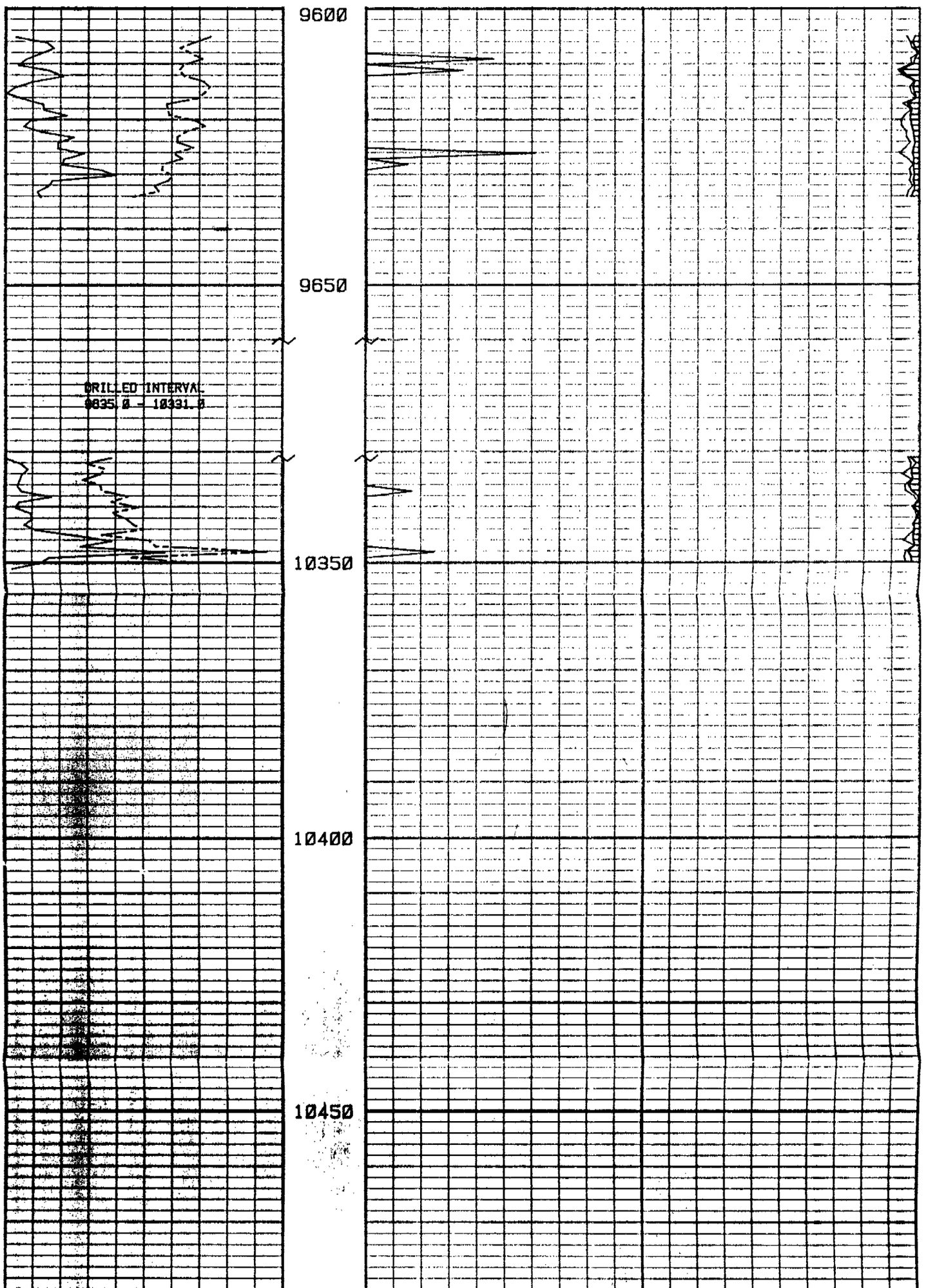
07 Apr 1983
TTCS No. 325

0 GR CPM 1000
2.50 Gd gm/cc 3.00

0.01 K_h mD 1000

20 Core ø % 0

Fractional Fluide
Oil Void Water



Form OGCC-1 b

STATE OF UTAH

OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

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—" for such proposals.)

1. OIL WELL [ ] GAS WELL [x] OTHER

2. NAME OF OPERATOR: Sohio Petroleum Company

3. ADDRESS OF OPERATOR: P. O. Box 30, Casper, WY 82602

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 1780' FWL, 1500' FNL, Sec. 33, T13N, R7E

5. LEASE DESIGNATION AND SERIAL NO.: 1130015

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A

7. UNIT AGREEMENT NAME: N/A

8. FARM OR LEASE NAME: Red Knoll

9. WELL NO.: 33-B

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 33, T13N, R7E

12. COUNTY OR PARISH: Rich Co.

13. STATE: Utah

14. PERMIT NO.: 43-033-30038

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 6544.8', GR

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

- TEST WATER SHUT-OFF [ ]
- FRACTURE TREAT [ ]
- SHOOT OR ACIDIZE [ ]
- REPAIR WELL [ ]
- (Other) Monthly Well History [ ]
- PULL OR ALTER CASING [ ]
- MULTIPLE COMPLETE [ ]
- ABANDON* [ ]
- CHANGE PLANS [ ]

SUBSEQUENT REPORT OF:

- WATER SHUT-OFF [ ]
- FRACTURE TREATMENT [ ]
- SHOOTING OR ACIDIZING [ ]
- (Other) [ ]
- REPAIRING WELL [ ]
- ALTERING CASING [ ]
- ABANDONMENT* [ ]

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

17. 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.)*

CONFIDENTIAL

See Attached Sheet

Monthly Well History for Month of April, 1983.

RECEIVED APR 27 1983 DIVISION OF OIL, GAS & MINING

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

SIGNED W. H. Ward TITLE Dist. Supt. DATE 4-22-83

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

CONFIDENTIAL

*See Instructions on Reverse Side

3-17 10,151', drld. 8½" hole from 10,121'-10,151' (30').

3-18 10,189' drld. 8½" hole form 10,151-10,189' (38').

3-19 10,203', drld 8½" hole from 10,189-10,203. (14')

3-20 10,307', drlg. Made 104'.

3-21 10,331', drlg. Made 24'.

3-22 10,342', doring. Cored 11'.

3-23 10,354', PU BHA. Continued coring. Made 12'.

3-24 10,412', surveying. Drld 58'.

3-25 10,505', surveying. Drld 93'.

3-26 10,631', surveying. Drld 8½" hole from 10,505'-10,631.

3-27 10,710', TOH to check BHA. Drld 79'.

3-28 10,762', drlg. Made 52'.

3-29 10,794', logging. Drld 8½" hole 32'.

3-30 10,794' TIH to cond.

3-31 10,794', logging w/Dialog.

4-01 10,821', drld 27'.

4-02 10,864', drld 43'.

4-03 10,909, drld 45'.

4-04 10,935', made 26' drlg. Now repairing rig.

4-05 10,956', made 21' drlg.

4-06 11,001', made 45' drlg. Testing BOP.

4-07 11,015', made 14' drlg. Cut drlg. line.

4-08 11,094', made 79' drlg.

4-09 11,117', drlg. Made 23'. Reaming to btm.

4-10 11,174', made 57' drlg.

4-11 11,279' drlg, made 105'.

4-12 11,350', drlg. Made 71'.

4-13 11,466', made 116' drlg.

4-14 11,562', surveying. Made 96'.

4-15 Depth 11,570', drlg. Drld 8½" hole from 11,562-11,570' (Made 8').

4-16 11,672', made 102' drlg.

4-17 11,756', made 94' drlg.

4-18 11,793, made 27' drlg.

4-19 11,897', made 114' drlg.

4-20 12,002', made 105' drlg.

4-21 12,079', made 77' drlg.

4-22 12,095', made 16' drlg.

CONFIDENTIAL

RECEIVED MAY 10 1983 DIVISION OF OIL GAS & MINING

REBEL TESTERS
Drilco - See-Flo - Degassers
P.O. BOX 1165 - ROCK SPRINGS, WYOMING 82901 - (307)362-7500
24 Hour Service

Date 5-3-83

Co. Solva

Lease & Well # Red Knoll 33-B County & State Rich, Utah

Sec. 33 T.S. 13-N Range 7-E

Field W/C Rig Bomac #~~43~~ 44

Operator & Equipment to Test Following

Hydrill 3500 PSI Choke Manifold 3500 PSI

Upper Rams 3500 PSI H.C.R. Valve 3500 PSI

Lower Rams 3500 PSI Manual Valve 3500 PSI

Blind Rams 3500 PSI Upper Kelly Valve PSI

Casing PSI Lower Valve PSI

Other PSI Tool Joint Connection 4½XH

Remarks Arrived on Location at 7:30 Am - Waited on drill collar inspection. Started Test at 2:00 PM. Finished Test at 5:30 PM

"Good Test"

Test BOP Stack 8 hour Minimum			$800.00
Test Plug Used	10" GULFCO		$100.00
Test Subs Used	4½ XH Pin @ $50.00 each	(1)	N/C
Test Seals	@ each		
Special X over Subs	@ each		
Additional Hours	@ 2-$50.00 Each	(2)	$100.00
252 R/T Miles	@ $1.00 ea each		N/C
Operator Bob Pool - Scott Smith	Unit No. 1	Total	$1000.00

Prices Subject to Correction by Bookkeeping Dept.

Customers Signature [signature]

Customers Order No.

Thank You

ARCCO
MVP 0-1000
Volume & Pressure
12 NOON
1 P.M.
2 P.M.
3 P.M.
4 P.M.
5 P.M.
6 P.M.
7 P.M.
8 P.M.
9 P.M.
10 P.M.
11 P.M.
12 NIGHT
1 A.M.
2 A.M.
3 A.M.
4 A.M.
5 A.M.
6 A.M.
7 A.M.
8 A.M.
9 A.M.
10 A.M.
11 A.M.
Co.-Sohio, Lease & Well #
Rd Kauai
Blind Rams
Choke Manifold
Lower Pipe Rams
Kill Line
Manual Valve
Upper Pipe Rams
Kill Line
Hydril
Choke Manifold
Blind Ram
5-3-83
Choke Manifold
Kill Line
Choke Manifold
Blind Rams
Choke Manifold
Blind Rams
Choke Manifold
Kill Line
Hydril
Valve
Sec. - 33, T5 - 32N, R - 7E, Field - Wildcat, R.S. - Bonner #1
Co. - Bch. County - State - Utah
ARCCO CHARTS
PRINTED
IN
LOS ANGELES, CALIF.

Form OGCC-1 b

STATE OF UTAH

OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

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—" for such proposals.)

5. LEASE DESIGNATION AND SERIAL NO.: 1130015

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A

7. UNIT AGREEMENT NAME: N/A

8. FARM OR LEASE NAME: Red Knoll

9. WELL NO.: 33-B

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 33, T13N, R7E

1. OIL WELL [ ] GAS WELL [x] OTHER

2. NAME OF OPERATOR: Sohio Petroleum Company

3. ADDRESS OF OPERATOR: P. O. Box 30, Casper, WY 82602

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 1780' FWL, 1500' FNL, Sec. 33, T13N, R7E

14. PERMIT NO.: 43-033-30038

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 6544.8', GR

12. COUNTY OR PARISH: Rich Co.

13. STATE: Utah

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

- TEST WATER SHUT-OFF [ ]
- FRACTURE TREAT [ ]
- SHOOT OR ACIDIZE [ ]
- REPAIR WELL [ ]
- PULL OR ALTER CASING [ ]
- MULTIPLE COMPLETE [ ]
- ABANDON* [ ]
- CHANGE PLANS [ ]
- (Other) Monthly Well History [ ]

SUBSEQUENT REPORT OF:

- WATER SHUT-OFF [ ]
- FRACTURE TREATMENT [ ]
- SHOOTING OR ACIDIZING [ ]
- REPAIRING WELL [ ]
- ALTERING CASING [ ]
- ABANDONMENT* [ ]
- (Other) [ ]

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

17. 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.)*

See Attached Sheet

Monthly Well History for Month of April 23, 1983 thru May 17, 1983.

RECEIVED
MAY 20 1983
DIVISION OF
OIL, GAS & MINING

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

SIGNED W H Wards TITLE Dist. Supt. DATE 5-19-83

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

CONFIDENTIAL

*See Instructions on Reverse Side

RED KNOLL
Cont'd

4-23 TD 12,185', made 90' drlg.

4-24 TD 12,276', made 91' drlg.

4-25 12,297', made 21'. POOH.

4-26 12,297', POOH.

4-27 12,297', GIH.

4-28 12,297', logging. POH w/Run #3.

4-29 12.297', GIH.

4-30 12,387', made 90' drlg.

5-01 12,463', made 76'. Surveying.

5-02 12,540', made 77' drlg.

5-03 12,549', made 9'. TOH to check BHA.

5-04 12,549', made 0' last 24 hrs. Ream to btm.

5-05 12,549', made 0' last 24 hrs. Reaming w/watermellon mill.

5-06 12,549', ream @ 10,301 (mill location).

5-07 12,549', reaming.

5-08 12,624', made 75' drlg.

5-09 12,712', made 88' drlg.

5-10 12,803', made 91'. Circ. & cond. for logs.

5-11 12,803', POOH w/overshot.

5-12 12,803', made 0' last 24 hrs. GIH w/ OS

5-13 12,803, Fishing.

5-14 12,803, Work stuck pipe.

5-15 12,803', POOH.

5-16 12,803', Circ. on top of fish to 11,311.

5-17 12,803, made 0' last 24 hrs. Jar in fish.

CONFIDENTIAL

SOHIO PETROLEUM COMPANY
EXPLORATION AND PRODUCTION

P. O. BOX 30
CASPER, WYOMING 82602

May 20, 1983
WHW:69

Norm Stout
Oil, Gas, and Mining Division
4241 State Office Bldg.
Salt Lake City, Utah 84114

RE: Notice of Intent to Plug and Abandon
Red Knoll 33-B
Rich Co., Utah

Dear Mr. Stout:

Attached you will find the original and two copies of the Notice of Intent to Plug and Abandon the Red Knoll #33-B well. Verbal approval was received May 9, 1983 from Ron Firth in a phone conversation with Mark Pajak, Sohio.

A subsequent Report of abandonment will be submitted upon completion of plugging.

Sincerely,

W. H. Ward

W. H. Ward
District Manager

TR:ed
Attachments

cc: Bill Martens, MMS, Salt Lake City
J. H. Walters
T. Rooney
File

ADVISED OF COMMENCEMENT OF P&A PROCEDURES, 5/21/83.

RECEIVED
MAY 25 1983
DIVISION OF
OIL, GAS & MINING

Form OGCC-1 b

STATE OF UTAH

OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

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—" for such proposals.)

1. OIL WELL ☐ GAS WELL ☐ OTHER Dry Hole

2. NAME OF OPERATOR: Sohio Petroleum Company

3. ADDRESS OF OPERATOR: P.O. Box 30, Casper, WY 82602

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 1780' FWL, 1500' FNL

5. LEASE DESIGNATION AND SERIAL NO.: Fee

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: NA

7. UNIT AGREEMENT NAME: East Duck Creek

8. FARM OR LEASE NAME: Red Knoll

9. WELL NO.: 33-B

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 33, T13N, R7E

14. PERMIT NO.: 43-033-30038

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 6455.8' GR

12. COUNTY OR PARISH: Rich

13. STATE: Utah

16. **Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data**

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	☐	PULL OR ALTER CASING	☐	WATER SHUT-OFF	☐	REPAIRING WELL	☐
FRACTURE TREAT	☐	MULTIPLE COMPLETE	☐	FRACTURE TREATMENT	☐	ALTERING CASING	☐
SHOOT OR ACIDIZE	☐	ABANDON*	X	SHOOTING OR ACIDIZING	☐	ABANDONMENT*	☐
REPAIR WELL	☐	CHANGE PLANS	☐	(Other)			☐
(Other)			☐	(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. 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.)*

The following plugging procedure was verbally approved May 9, 1983 during a phone conversation between Ron Firth, OGM, and Mark Pajak, Sohio:

1. Set 100' plug on bottom (12,803').
2. Set 100' plug over top of Wells (10,720').
3. Set 100' plug over top of Phosphoria (10,168').
4. Set 100' plug over top of Dinwoody (9535').
5. Set 200' plug, ½ in and ½ out of 9-5/8" shoe (±7636').
6. Set 50' surface plug in 9-5/8" csg.
7. Set 50' surface plug between 13-3/8" and 9-5/8" annulus.
8. Clean location, install dry hole marker.

Work is scheduled to commence May 20, 1983.

RECEIVED MAY 25 1983 DIVISION OF OIL, GAS & MINING

APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING
DATE: 5/24/1983
BY: [illegible]

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

SIGNED W. H. Ward (W. H. Ward) TITLE District Manager DATE 5-20-83

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

SOHIO PETROLEUM COMPANY
EXPLORATION AND PRODUCTION

P. O. BOX 30
CASPER, WYOMING 82602

June 6, 1983
WHW: 19

Norm Stout
Oil, Gas and Mining
4241 State Office Bldg.
Salt Lake City, UT 84114

Re: Subsequent Report of Abandonment
Red Knoll 33B
Section 33, T13N, R7E
Rich County, Utah

Dear Mr. Stout:

Attached you will find the original and two copies of the subsequent report of abandonment of the Red Knoll 33B well in Rich County, Utah. Plugging was completed May 21, 1983. The completion report will be filed upon receipt of all field data.

Sincerely,

F.J. Hoffer
District Production Superintendent

tTR/jc

cc: Bill Martens, MMS, Salt Lake City
J.H. Walters
T. Rooney
File

Attachments

RECEIVED
JUN 08 1983
DIVISION OF
OIL GAS & MINING

Form OGCC-1 b

STATE OF UTAH

OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

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—" for such proposals.)

1. OIL WELL ☐ GAS WELL ☐ OTHER Dry Hole

2. NAME OF OPERATOR: Sohio Petroleum Company

3. ADDRESS OF OPERATOR: P.O. Box 30, Casper, WY 82602

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 1780' FWL, 1500' FNL

5. LEASE DESIGNATION AND SERIAL NO.: Fee

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: NA

7. UNIT AGREEMENT NAME: East Duck Creek

8. FARM OR LEASE NAME: Red Knoll

9. WELL NO.: 33B

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 33, T13N, R7E

14. PERMIT NO.: 43-033-30038

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 6455.8' GR

12. COUNTY OR PARISH: Rich

13. STATE: UT

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	☐	PULL OR ALTER CASING	☐	WATER SHUT-OFF	☐	REPAIRING WELL	☐
FRACTURE TREAT	☐	MULTIPLE COMPLETE	☐	FRACTURE TREATMENT	☐	ALTERING CASING	☐
SHOOT OR ACIDIZE	☐	ABANDON*	☐	SHOOTING OR ACIDIZING	☐	ABANDONMENT*	X
REPAIR WELL	☐	CHANGE PLANS	☐	(Other)			☐
(Other)	☐			(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. 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.)*

Approval was received 5/9/83 to plug and abandon.
Work commenced 5/20/83 and the following procedure was followed:

1) Set 100' plug on bottom (12,770');
2) Set 100' plug over top of Wells (10724');
3) Set 100' plug over top of Phosphoria (10,166');
4) Set 100' plug over top of Dinwoody (9515');
5) Set 200' plug, ½ in and ½ out of 9-5/8" csg. shoe (±7748');
6) Set 50' surface plug in 9-5/8" csg.;
7) Set 50' surface plug in 13-3/8" X 9-5/8" annulus;

A dry hole marker was installed, pit fenced and location cleaned.

The well was plugged at 7:00 PM, 5/21/83.

*APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS AND MINING
DATE: 6/6/83
BY: [illegible]

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

SIGNED F.J. Hoffer TITLE Dist. Prod. Supt. DATE 6/6/83

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

* Approval Contingent upon location inspection.

*See Instructions on Reverse Side

Terra Tek Core Services

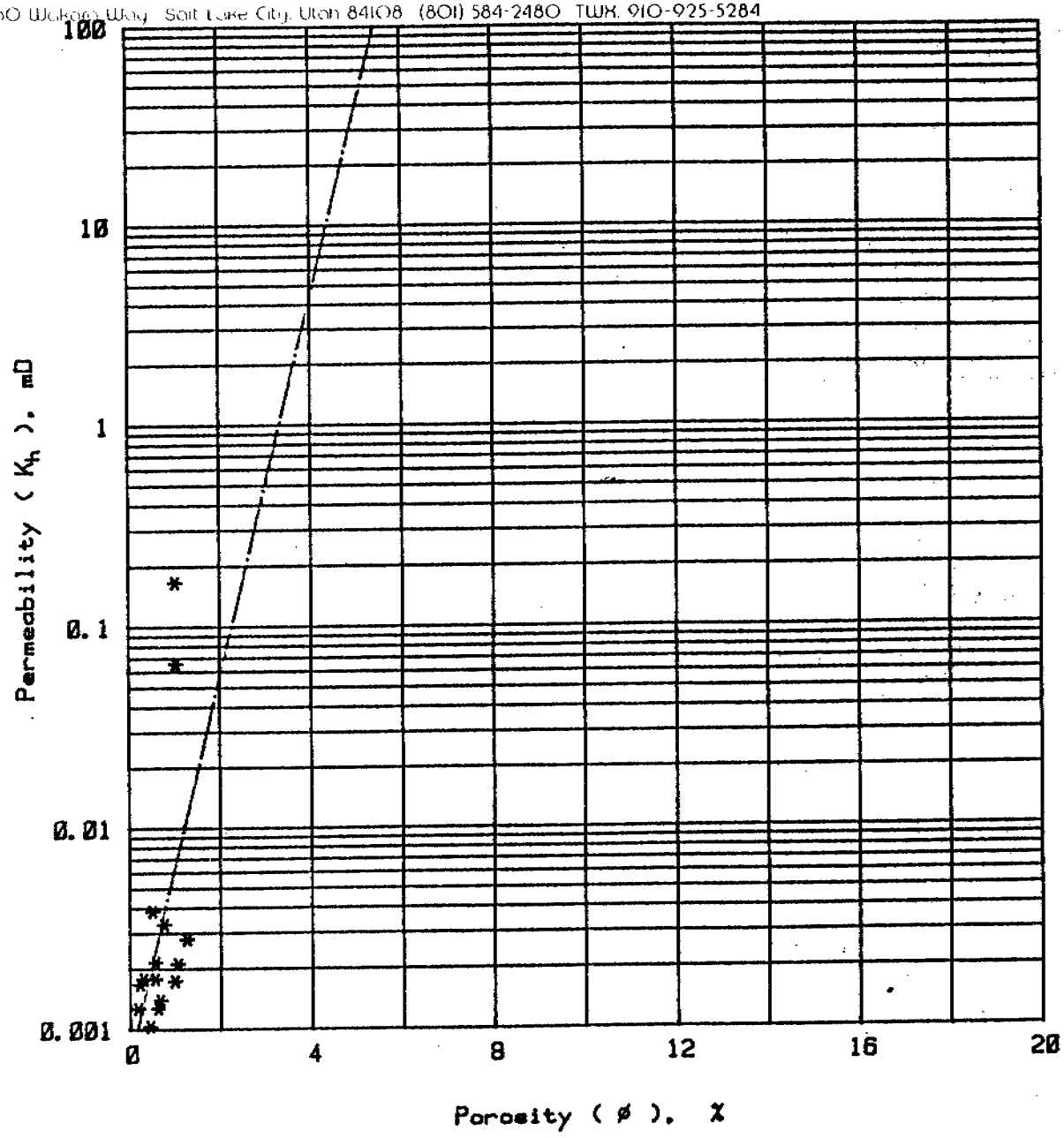
University Research Park 360 Wakara Way Salt Lake City, Utah 84108 (801) 584-2480 TWX 910-925-5284

HORIZONTAL PERMEABILITY VS POROSITY

SOHIO PETROLEUM COMPANY

Red Knoll #33-B
Wildcat Field
Rich County, Utah
Phosphoria Formation

Depth Interval : 10331 to 10351 feet		
Permeability (K_h), mD		
Min	Max	Average
0.00	0.17	0.00
Porosity (ø), %		
Min	Max	Average
0.21	1.29	0.71
Equation of the Line		
Log K_h = Slope ø + Log of intercept		
Log K_h = .9471 ø - 3.165		
Correlation Coefficient : .495		



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Terra Tek Core Services

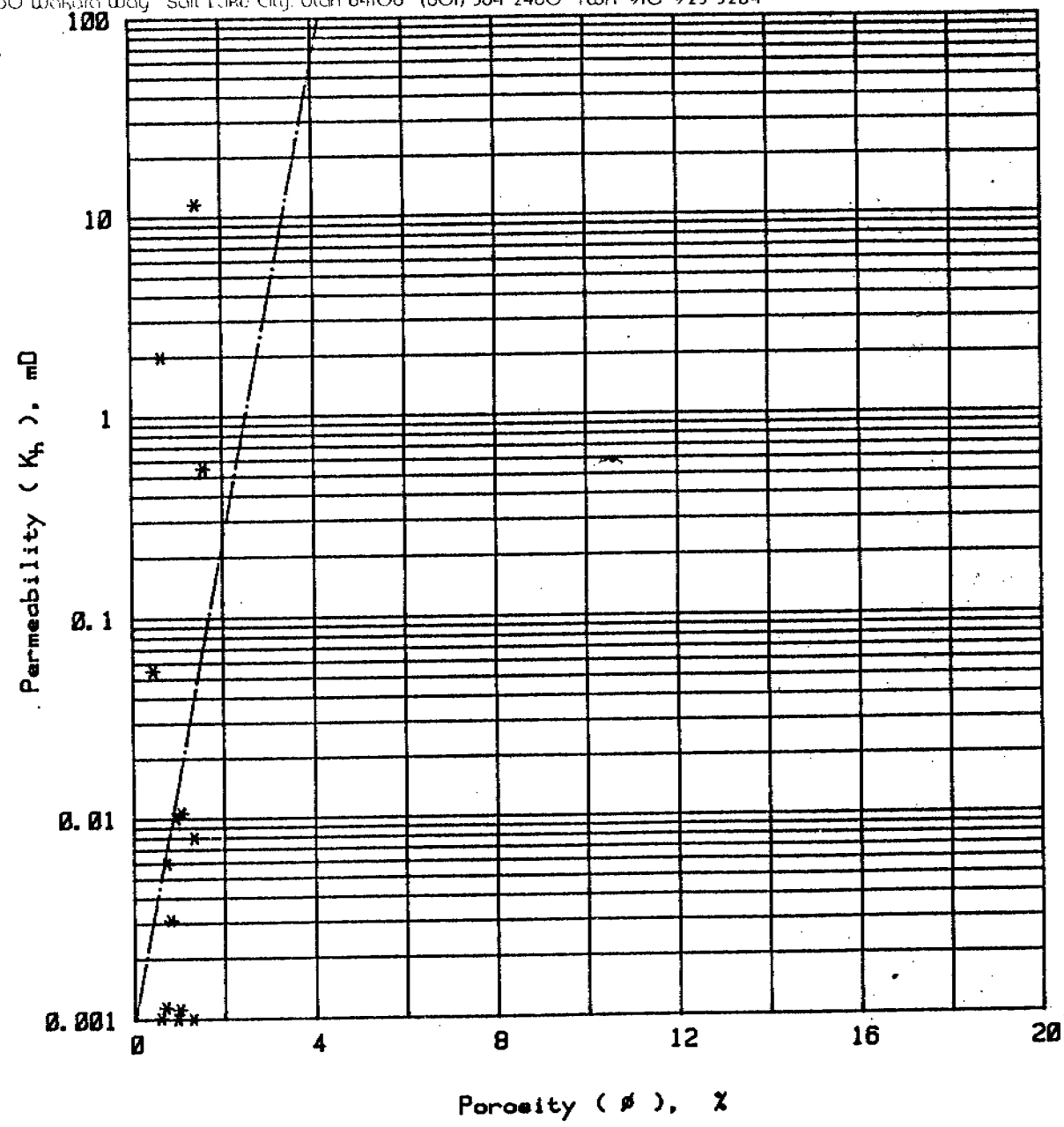
University Research Park 360 Wakara Way Salt Lake City, Utah 84108 (801) 584-2480 TWX 910-925-5284

HORIZONTAL PERMEABILITY VS POROSITY

SOHIO PETROLEUM COMPANY

Red Knoll #33-B
Wildcat Field
Rich County, Utah
Dinwoody Formation

Depth Interval : 9605 to 9635 feet		
Permeability (K_h), mD		
Min	Max	Average
0.00	11.54	0.01
Porosity (ø), %		
Min	Max	Average
0.47	1.60	0.98
Equation of the Line		
Log K_h = Slope ø + Log of intercept		
Log K_h = 1.1997 ø - 3.0291		
Correlation Coefficient : .309		



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Terra Tek Core Services

University Research Park - 360 Wakara Way - Salt Lake City, Utah 84108 - (801) 584-2480 - TWX 910-925-5284

SOHIO PETROLEUM COMPANY

Well:	Red Knoll #33-B	State:	Utah	Date:	07 Apr 1983
Field:	Wildcat	County:	Rich	TTCS File #:	325
Drilling Fluid:	LSND	Location:	Sec33 - T13N - R7E	Elevation:	6478 KB

DEAN-STARK PLUG ANALYSIS
DATA SUMMARY

Zone Number	Depth Interval (feet)	Number of samples	Permeability Horz (md)	Porosity (%)	Saturation Oil (%)	Saturation H2O (%)	Grain Density (gm/cc)
DINWOODY FORMATION							
1	9605.0-635.0	30	<0.01 [0.00]	0.8 [0.3]	0.0 [0.0]	62.4 [17.8]	2.82 [0.0]
PHOSPHORIA FORMATION							
1	10331.0-351.0	20	<0.01 [0.00]	0.7 [0.3]	0.0 [0.0]	65.6 [21.9]	2.72 [0.1]

[ ] Sample standard deviation

Terra Tek Core Services

University Research Park - 360 Wakara Way - Salt Lake City, Utah 84108 - (801) 584-2480 - TWX 910-925-5284

SOHIO PETROLEUM COMPANY Date: 07 Apr 1983 TTCS File #: 325

Well: Red Knoll #33-B

DEAN-STARK PLUG ANALYSIS

Sample Number	Depth (feet)	Permeability Horz (md)	Porosity (%)	Saturation Oil (%)	Saturation H2O (%)	Grain Density (gm/cc)	Lithology
38	10338.0-39.0	<0.01	0.5	0.0	31.3	2.72	Sh
39	10339.0-40.0	<0.01	0.2	0.0	36.9	2.69	Sd,vfg,dol,shly,slty
40	10340.0-41.0	<0.01	0.6	0.0	86.1	2.74	Sd,vfg,dol,shly,slty
41	10341.0-42.0	<0.01	0.3	0.0	36.4	2.69	Sd,vfg,dol,shly,slty
42	10342.0-43.0	<0.01	0.3	0.0	90.4	2.72	Sd,vfg,dol,shly
43	10343.0-44.0	<0.01	0.5	0.0	91.7	2.73	Sd,vfg,dol,shly
44	10344.0-45.0	<0.01	0.4	0.0	91.5	2.75	Sd,vfg,dol,shly
45	10345.0-46.0	<0.01	0.8	0.0	63.3	2.67	Sd,vfg,dol,qtz
46	10346.0-47.0	<0.01	1.2	0.0	39.8	2.76	Sd,vfg,dol,shly
47	10347.0-48.0	<0.01	0.4	0.0	93.9	2.77	Sd,vfg,dol
48	10348.0-49.0	0.17†	1.1	0.0	82.7	2.97	Sd,vfg,dol,cong
49	10349.0-50.0	<0.01	1.1	0.0	54.9	2.72	Sd,vfg,dol
50	10350.0-51.0	<0.01	1.0	0.0	56.2	2.84	Sd,vfg,v/dol
	10351.0 - 10354.0						NOT RECOVERED

† Horizontal dehydration crack

Terra Tek Core Services

University Research Park - 360 Wakara Way - Salt Lake City, Utah 84108 - (801) 584-2480 - TWX 910-925-5284

SOHIO PETROLEUM COMPANY Date: 07 Apr 1983 TTCS File #: 325
Well: Red Knoll #33-B

DEAN-STARK PLUG ANALYSIS

Sample Number	Depth (feet)	Permeability Horz (md)	Porosity (%)	Saturation Oil (%)	Saturation H2O (%)	Grain Density (gm/cc)	Lithology	
19	9623.0-24.0	<0.01	1.0	0.0	41.9	2.81	Dol,crpxln,qtz fracs	
20	9624.0-25.0	<0.01	0.7	0.0	42.9	2.81	Dol,crpxln,qtz	
21	9625.0-26.0	<0.01	1.0	0.0	40.0	2.84	Dol,crpxln	
22	9626.0-27.0	12	1.5	0.0	34.5	2.80	Dol,crpxln	HF
23	9627.0-28.0	<0.01	0.9	0.0	44.7	2.82	Dol,crpxln	
24	9628.0-29.0	0.05	0.5	0.0	95.2	2.78	Dol,crpxln,sl/shly	HF
25	9629.0-30.0	<0.01	0.7	0.0	56.5	2.78	Dol,crpxln,sl/shly	
26	9630.0-31.0	<0.01	0.6	0.0	56.3	2.80	Dol,crpxln,sl/shly	
27	9631.0-32.0	<0.01	0.8	0.0	59.8	2.79	Dol,crpxln,sl/shly	
28	9632.0-33.0	<0.01	0.5	0.0	68.8	2.77	Dol,crpxln,sl/shly	
29	9633.0-34.0	<0.01	0.8	0.0	49.0	2.77	Dol,crpxln,shly	
30	9634.0-35.0	0.01	0.9	0.0	65.9	2.73	Dol,crpxln,shly	
	9635.0 - 10331.0						DRILLED INTERVAL	
PHOSPHORIA FORMATION								
31	10331.0-32.0	<0.01	0.9	0.0	79.3	2.69	Sd,vfg,dol,shly	
32	10332.0-33.0	<0.01	0.7	0.0	37.9	2.64	Sd,vfg,dol,shly	
33	10333.0-34.0	<0.01	0.7	0.0	79.9	2.68	Sd,vfg,sol	
34	10334.0-35.0	<0.01	1.3	0.0	46.3	2.67	Sd,vfg,dol,qtz fracs	
35	10335.0-36.0	<0.01	0.6	0.0	80.5	2.64	Sd,vfg,dol,qtz fracs	
36	10336.0-37.0	<0.01	1.1	0.0	75.6	2.67	Sd,vfg,dol	
37	10337.0-38.0	0.07+	1.1	0.0	57.3	2.67	Sd,vfg,dol	

+ Horizontal dehydration crack

Terra Tek Core Services

University Research Park - 360 Wakara Way - Salt Lake City, Utah 84108 - (801) 584-2480 - TWX 910-925-5284

SOHIO PETROLEUM COMPANY

Well:	Red Knoll #33-B	State:	Utah	Date:	07 Apr 1983
Field:	Wildcat	County:	Rich	TTCS File #:	325
Drilling Fluid:	LSND	Location:	Sec33 - T13N - R7E	Elevation:	6478 KB

DEAN-STARK PLUG ANALYSIS

Sample Number	Depth (feet)	Permeability Horz (md)	Porosity (%)	Saturation Oil (%)	Saturation H2O (%)	Grain Density (gm/cc)	Lithology	
DINWOODY FORMATION								
1	9605.0-06.0	0.01	0.9	0.0	34.1	2.87	Dol,crpxln,qtz fracs	
2	9606.0-07.0	<0.01	0.7	0.0	77.4	2.84	Dol,crpxln	
3	9607.0-08.0	<0.01	0.6	0.0	60.9	2.81	Dol,crpxln	
4	9608.0-09.0	<0.01	0.1	0.0	90.2	2.83	Dol,crpxln	
5	9609.0-10.0	2.0	0.7	0.0	51.6	2.85	Dol,crpxln	HF
6	9610.0-11.0	<0.01	0.6	0.0	78.1	2.82	Dol,crpxln	
7	9611.0-12.0	0.55	1.6	0.0	87.3	2.81	Dol,crpxln,shly	HF
8	9612.0-13.0	<0.01	1.2	0.0	81.5	2.82	Dol,crpxln,shly	
9	9613.0-14.0	<0.01	0.4	0.0	79.8	2.86	Dol,crpxln,qtz fracs	
10	9614.0-15.0	<0.01	0.7	0.0	66.9	2.87	Dol,crpxln,qtz fracs	
11	9615.0-16.0	<0.01	0.6	0.0	63.6	2.86	Dol,crpxln	
12	9616.0-17.0	<0.01	0.3	0.0	80.7	2.84	Dol,crpxln,shly	
13	9617.0-18.0	<0.01	1.2	0.0	71.3	2.79	Dol,crpxln,shly	
14	9618.0-19.0	<0.01	0.6	0.0	89.5	2.79	Dol,crpxln,shly	
15	9619.0-20.0	0.01	1.1	0.0	63.5	2.79	Dol,crpxln,shly	
16	9620.0-21.0	<0.01	1.4	0.0	48.4	2.84	Dol,crpxln	
17	9621.0-22.0	<0.01	1.3	0.0	44.0	2.86	Dol,crpxln,qtz fracs	
18	9622.0-23.0	<0.01	1.0	0.0	46.4	2.82	Dol,crpxln	

Form OGCC-1b

STATE OF UTAH

OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

CONFIDENTIAL

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—" for such proposals.)

RECEIVED JUN 17 1983 DIVISION OF OIL, GAS & MINING

1. OIL WELL [ ] GAS WELL [X] OTHER

2. NAME OF OPERATOR: Sohio Petroleum Company

3. ADDRESS OF OPERATOR: P. O. Box 30, Casper, WY 82602

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 1780' FWL, 1500' FNL, Sec. 33, T13N, R7E

5. LEASE DESIGNATION AND SERIAL NO.: 11790015

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A

7. UNIT AGREEMENT NAME: N/A

8. FARM OR LEASE NAME: Red Knoll

9. WELL NO.: 33-B

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 33, T13N, R7E

12. COUNTY OR PARISH: Rich Co.

13. STATE: Utah

14. PERMIT NO.: 43-033-30038

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 6544.8', GR

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]	WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]	SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]	(Other)			[ ]
(Other) Monthly Well History			[ ]				

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

17. 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.)*

See Attached Sheet

Monthly Well History for Month of May 18 through May 22, 1983 - Final Report.

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

SIGNED W. H. Ward TITLE Dist. Manager DATE 6-15-83

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

CONFIDENTIAL

*See Instructions on Reverse Side

Red Knoll (Cont'd)

5-18 Depth 12,803', Made 0' last 24 hrs. GIH w/bit. MW 8.9, Vis 45. Bit #60 sheared off cones, recovered all fish.

5-19 TD 12,803', Made 0' last 24 hrs. Circ. for logs. MW 8.9, Vis 71.

5-20 TD 12,803, made 0' last 24 hrs. Waiting on orders.

5-21 LD drill pipe. Wait on orders. TIH. Circ. Set 1st plug 50 sx Cl H w/1/4% HR-25, Plug #2Ø, 50 sx Cl H as above, Plug #3, 50 Sx Cl H w/.1% HR25, Plug #4 50 sx Cl H w/.1% HR25, Plug #5 80 sx Cl H w/.1% HR25. Now POH, LD DP.

5-22 Rig released. LD DP., RD, LD machine, clean pits & nipple down BOP. Rig release @ 1:00 AM 5-22-83

CONFIDENTIAL

SOHIO PETROLEUM COMPANY
EXPLORATION AND PRODUCTION

P. O. BOX 30
CASPER, WYOMING 82602

June 20, 1983
WHW: 92

Norm Stout
Division of Oil, Gas and Mining
4241 State Office Bldg.
Salt Lake City, UT 84114

Re: Completion Report
Report of Water Encountered
Red Knoll 33B
Section 33, T13N, R7E
Rich County, Utah

Dear Mr. Stout:

Attached are the originals and two copies of the Completion Report and Report of Water Encountered During Drilling for the Red Knoll 33B well. This well was plugged and abandoned May 21, 1983.

The Report of Water Encountered does not indicate the thickness of the water sand because the logs do not show data at shallow depths.

Please indicate if further information is required to complete your file on this well.

Sincerely,

W.H. Ward

W.H. Ward
District Manager

TR/jc

cc: Bill Martens, BLM, Salt Lake City
J.H. Walters
George Banitch
T. Rooney
File

RECEIVED
JUN 27 1983
DIVISION OF
OIL, GAS & MINING

Form OGCC-3

3

6

STATE OF UTAH

OIL & GAS CONSERVATION COMMISSION

SUBMIT IN DUPLICATE*
(See other instructions on reverse side)

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☐ DRY ☒ Other

b. TYPE OF COMPLETION: NEW WELL ☐ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ Other Plug & Abandon

2. NAME OF OPERATOR: Sohio Petroleum Company

3. ADDRESS OF OPERATOR: P.O. Box 30, Casper, WY 82602

4. LOCATION OF WELL (*Report location clearly and in accordance with any State requirements*)*
At surface 1780' FWL, 1500' FNL (SE/4,NW/4)
At top prod. interval reported below NA
At total depth 737' FNL, 1115' FWL

5. LEASE DESIGNATION AND SERIAL NO.: Fee

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: NA

7. UNIT AGREEMENT NAME: East Duck Creek

8. FARM OR LEASE NAME: Red Knoll

9. WELL NO.: 33B

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: Sec. 33, T13N, R7E

12. COUNTY OR PARISH: Rich

13. STATE: Utah

14. PERMIT NO.: 43-033-30038 DATE ISSUED: 10/11/82

15. DATE SPUDDED: 11/25/82 16. DATE T.D. REACHED: 5/9/83 17. DATE COMPL. (*Ready to prod.*): Plugged 5/21/83 18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*: 6455.8' GR 19. ELEV. CASINGHEAD: 6455'

20. TOTAL DEPTH, MD & TVD: 12803' 21. PLUG, BACK T.D., MD & TVD: NA 22. IF MULTIPLE COMPL., HOW MANY*: NA 23. INTERVALS DRILLED BY: → ROTARY TOOLS: X CABLE TOOLS:

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*: NA

25. WAS DIRECTIONAL SURVEY MADE: Yes

26. TYPE ELECTRIC AND OTHER LOGS RUN: Velocity survey, CNL-LTD-NGT, GR-CBL-CCL, FDC-CNL-DLL-MSFD, Dipmeter; BHC Sonic, Dialog

27. WAS WELL CORED: Yes

28. CASING RECORD (*Report all strings set in well*)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13-3/8"	68#	2513'	17½"	1450sx.lite,755sx Cl. H	None
9-5/8"	40,47#	7553'	12¼"	770 sx. Cl. H	None

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)
NA				

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
NA		

31. PERFORATION RECORD (*Interval, size and number*): NA

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
NA	

RECEIVED JUN 27 1983 DIVISION OF OIL, GAS & MINING

33.* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (*Flowing, gas lift, pumping—size and type of pump*)	WELL STATUS (*Producing or shut-in*)
NA		P+A

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
			→				

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)
		→				

34. DISPOSITION OF GAS (*Sold, used for fuel, vented, etc.*)

TEST WITNESSED BY

35. LIST OF ATTACHMENTS: None

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED W.H. Ward TITLE Dist. Manager DATE 6/20/83

*(See Instructions and Spaces for Additional Data on Reverse Side)

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency 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. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.

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 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.

Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

Item 29: *"Sacks Cement":* Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

37. SUMMARY OF POROUS ZONES:
SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
Zones of Porosity and Contents - None			
DST - None			
Cores -	#1 Dinwoody		9605-9618' (13')
	#2 Dinwoody		9618-9636' (18')
	#3 Phosphoria		10331-10342' (11')
	#4 Phosphoria		10336-10354' (cut 18', recovered 15')

38. GEOLOGIC MARKERS See Geologist Report

NAME	TOP MEAS. DEPTH	TOP TRUE VERT. DEPTH
Gypsum Springs	3160'	
Nuggett	3427'	
Ankareh	4619'	
Thaynes	6062'	
Woodside	7978'	
Dinwoody	9555'	
Phosphoria	10162'	
Wells	10651'	
Amsden	11385'	
Brazer	12394'	

FILE IN TRIPLICATE
FORM OGC-8-X

56 64 03

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING
1588 West North Temple
Salt Lake City, Utah 84116

REPORT OF WATER ENCOUNTERED DURING DRILLING

Well Name & Number Red Knoll #33B

Operator Sohio Petroleum Co. *Address* P.O. Box 30, Casper,WY 82602

Contractor Bomac Drilling *Address* P.O. Box 1145, Mills, WY 82644

Location NE ¼ SW ¼ *Sec.* 33 *T.* 13N *R.* 7E *County* Rich

Water Sands

	Depth From	Depth To	Volume Flow Rate or Head	Quality Fresh or Salty
1.	740'		100 gpm	fresh
2.				
3.				
4.				
5.				

(Continue of reverse side if necessary)

Formation Tops Tertiary Wasatch (surface)

Remarks

water analysis attached

NOTE: (a) *Report on this form as provided for in Rule C-20, General Rules and Regulations and Rules of Practice and Procedure.*

(b) *If a water analysis has been made of the above reported zone, please forward a copy along with this form.*

Form OGCC-1 b

STATE OF UTAH

OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

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—" for such proposals.)

RECEIVED

MAY 3 1 1985

DIVISION OF OIL GAS & MINING

1. OIL WELL [ ] GAS WELL [X] OTHER Dry hole

2. NAME OF OPERATOR: Sohio Petroleum Company

3. ADDRESS OF OPERATOR: P. O. Box 30, Casper, WY 82602

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.) At surface: 1780' FWL, 1500' FNL

5. LEASE DESIGNATION AND SERIAL NO.: Fee

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: --

7. UNIT AGREEMENT NAME: East Duck Creek

8. FARM OR LEASE NAME: Red Knoll

9. WELL NO.: 33-B

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Section 33, T13N, R7E

12. COUNTY OR PARISH: Rich

13. STATE: Utah

14. PERMIT NO.: 43-033-30038

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 6455.8' GR

16. **Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data**

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]	WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]	SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]	(Other) Completion of Rehabilitation			[X]
(Other)			[ ]	(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. 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.)*

Recontouring and reseeding has been completed and the site is ready for inspection at your convenience.

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

SIGNED F. J. Hoffer TITLE Dist. Prod. Supt. DATE 5/29/85

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

0 + 1: DOGM

cc: TR, File

*See Instructions on Reverse Side

STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

Norman H. Bangerter, Governor
Dee C. Hansen, Executive Director
Dianne R. Nielson, Ph.D., Division Director

355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

July 3, 1985

PKA

F.J. Hoffer
Sohio Petroleum Company
P.O. Box 30
Casper, Wyoming 82602

Dear Mr. Hoffer:

RE: Red Knoll 33-B, Sec.33, T.13N, R.7E, Rich County, Utah

A final field inspection was made at the Red Knoll 33-B, location on June 27, 1985. The reclamation work performed on the site appears complete and meets the requirements of the Division of Oil, Gas and Mining. If the landowner is satisfied with the reclamation, then no further action is required from your company.

Thank you for your prompt attention to the reclamation of this site. Please notify the Division when other Sohio locations are reclaimed so that an inspection may be made.

Sincerely,

John R. Baza

John R. Baza
Petroleum Engineer

DBS/sb
cc: Dianne Nielson
Ron Firth
Well File
9689T-57