

BHP Pet. (Americas) Inc. ERG
7 Navajo-0, Apache Cty 686
NE SW, Sec. 25, T41N R30E

COUNTY Apache AREA Teec Nos Pos LEASE NO. 14-20-603-716

WELL NAME Energy Reserves⁷ Navajo -0

LOCATION NE SW SEC 25 TWP 41N RANGE 30E FOOTAGE 1900 FSL & 2200 FWL

ELEV 5409 GR 5420 KB SPUD DATE 11-5-77 STATUS FA TOTAL COMP. DATE 11-20-77 DEPTH 5830

CONTRACTOR Coleman Drilling

CASING SIZE	DEPTH	CEMENT	LINER SIZE & DEPTH	DRILLED BY ROTARY
<u>8 7/8</u>	<u>645</u>	<u>4505 lbs</u>		<input checked="" type="checkbox"/>
				DRILLED BY CABLE TOOL <input type="checkbox"/>
				PRODUCTIVE RESERVOIR <input type="checkbox"/>
				INITIAL PRODUCTION <u>NA</u>

FORMATION TOPS	DEPTHS	SOURCE		REMARKS
		L.L.	E.L.	
Chinle	1,954'			
De Chelly	2,978'			
Cutler (undivided)	3,260'			
Upper Hermosa	4,730'			
Upper Ismay	5,466'			
Lower Ismay	5,531'			
Desert Creek	5,618'			
Akah	5,768'			
T.D.				
Logger	5,826'			
Driller	5,832'			

ELECTRIC LOGS	PERFORATED INTERVALS	PROD. INTERVALS	SAMPLE LOG
<u>Comp. Neutron-Log. Des.</u>			SAMPLE DESCRP.
<u>Well Later Log</u>			SAMPLE NO. <u>1810</u>
<u>Borehole Comp. Sonic</u>			CORE ANALYSIS
			DSTs <u>NA</u>

REMARKS _____ APP. TO PLUG Verbal
 PLUGGING REP.
 COMP. REPORT

WATER WELL ACCEPTED BY _____

BOND CO. SEABOARD SURETY CO. filed in P/N 689 BOND NO. 731451
 BOND AMT. \$ 25,000. CANCELLED 10-9-90 DATE 9-18-70 ORGANIZATION REPORT 7-17-70
 FILING RECEIPT 1000 LOC. PLAT X WELL BOOK X PLAT BOOK X
 API NO. 02-001-20235 DATE ISSUED 11-3-77 DEDICATION E/2 of SW/4

PERMIT NUMBER 686

DRILL STEM TEST

NO.	FROM	TO	RESULTS
1	5487	5507	REC. 2,306' Mud. 94' Oil & Gas cut ^{Mud}
2	5550	5585	REC 94' Mud; 181" WdG cut water
			See Test Results

CORE RECORD

NO.	FROM	TO	RECOVERY	REMARKS

REMEDIAL HISTORY

DATE STARTED - COMPLETED	WORK PERFORMED	NEW PERFORATIONS

ADDITIONAL INFORMATION

WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG

DESIGNATE TYPE OF COMPLETION:

New Well
 Work-Over
 Deepen
 Plug Back
 Same Reservoir
 Different Reservoir
 Oil
 Gas
 Dry

DESCRIPTION OF WELL AND LEASE

Operator: Energy Reserves Group, Inc. Address: P.O. Box 3280, Casper, Wyoming 82602
 Federal, State or Indian Lease Number or name of lessor if fee lease: Navajo "O" 14-20-603-716 Wall Number: 7 Field & Reservoir: Teec Nos Pos - Ismay

Location: 1,900' FSL & 2,200' FWL (NW SW) County: Apache
 Sec. TWP-Range or Block & Survey: Sec. 25-T41N-R30E

Date spudded: 11-5-77 Date total depth reached: 11-16-77 Date completed, ready to produce: 11-20-77 P & A Elevation (DF, RECB, RT or Gr.): 5,420' K.B. feet Elevation of casing hd. range: _____ feet

Total depth: 5,830' P.B.T.D.: P & A Single, dual or triple completion?: N.A. If this is a dual or triple completion, furnish separate report for each completion.

Producing interval (s) for this completion: Dry Hole Rotary tools used (interval): 0' - T.D. Cable tools used (interval): _____

Was this well directionally drilled? NO Was directional survey made? NO Was copy of directional survey filed? _____ Date filed: _____

Type of electrical or other logs run (check logs filed with the completion): Dual Laterolog; Comp Neutron-Form Density; BHC Sonic Date filed: _____

CASING RECORD

Casing (report all strings set in well—conductor, surface, intermediate, producing, etc.)						
Purpose	Size hole drilled	Size casing set	Weight (lb./ft.)	Depth set	Sacks cement	Amt. pulled
Surface	12-1/4"	8-5/8"	24# & 32#	645'	450	-0-

TUBING RECORD			LINER RECORD			
Size in.	Depth set ft.	Packer set at ft.	Size in.	Top ft.	Bottom ft.	Screen (ft.)

PERFORATION RECORD			ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD	
Number per ft.	Size & type	Depth interval	Amt. & kind of material used	Depth interval

INITIAL PRODUCTION

Date of first production: _____ Producing method (indicate if flowing, gas lift or pumping—if pumping, show size & type of pump): P & A

Date of test	Hrs. tested	Choke size	Oil prod. during test bbls.	Gas prod. during test MCF	Water prod. during test bbls.	Oil gravity ° API (Corr)

Tubing pressure	Casing pressure	Calcd rate of Production per 24 hrs.	Oil bbls.	Gas MCF	Water bbls.	Gas-oil ratio

Disposition of gas (state whether vented, used for fuel or sold): _____

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Dist. Production Engr. RMD of the Energy Reserves Group, Inc. (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

Date: DECEMBER 1, 1977 Signature: Dean B. Barner

RECEIVED

DEC 5 1977

O & G CONS. COMM.

Permit No. 686

STATE OF ARIZONA
 OIL & GAS CONSERVATION COMMISSION
 Well Completion or Recompletion Report and Well Log
 Form No. 4 File One Copy

DETAIL OF FORMATIONS PENETRATED

Formation	Top	Bottom	Description
Chinle	1,954'		
De Chelly	2,978'		
Cutler (undivided)	3,260'		
Upper Hermosa	4,730'		
Upper Ismay	5,466'		
Lower Ismay	5,531'		
Desert Creek	5,618'		
Akah	5,768'		
T.D.			
Logger	5,826'		
Driller	5,832'		
			DST #1 (5,487' - 5,507') Rec. 2,306' mud; 94' oil & gas cut mud w/some free water.
			DST #2 (5,550' - 5,585') Lower Ismay Rec. 94' mud; 181' water & gas cut water.

* Show all important zones of porosity, details of all cores, and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries.

INSTRUCTIONS:

Attach driller's log or other acceptable log of well.
This Well Completion or Recompletion report and well log shall be filed with the State of Arizona Oil & Gas Conservation Commission not later than thirty days after project completion.

Form 9-331
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPPLICATE*
(Other instructions on re-
verse side)

Form approved.
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

14-20-603-716

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

Navajo

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Navajo "O"

9. WELL NO.

7

10. FIELD AND POOL, OR WILDCAT

Teec Nos Pos

11. SEC., T., R., M., OR BLK. AND
SURVEY OR AREA

Sec. 25-T41N-R30E

12. COUNTY OR PARISH

Apache

13. STATE

Arizona

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
Energy Reserves Group, Inc.

3. ADDRESS OF OPERATOR
P.O. Box 3280, Casper, Wyoming 82602

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*
See also space 17 below.)
At surface

1,900' FSL & 2,200' FWL (NW SW $\frac{1}{4}$)

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, CR, etc.)

G.L. 5,407'; K.B. 5,420'

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)

FULL 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.)

The above described well was P & A on 11-20-77 as follows:

- 5,600'-5,300' w/ 85 sx. of Class "B" cement.
- 4,850'-4,605' w/ 95 sx. of Class "B" cement.
- 3,050'-2,850' w/140 sx. of Class "B" cement.
- 2,050'-1,850' w/ 90 sx. of Class "B" cement.
- 1,300'-1,100' w/120 sx. of Class "B" cement.
- 900'- 600' w/170 sx. of Class "B" cement.

Backed off threaded casing head and screwed on coupling with a regulation dry-hole marker welded on top.

When the permanent dry-hole marker is erected and the location is restored, you will be notified so that an inspection can be made.

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

SIGNED James C. Gillette

TITLE Drilling Superintendent

DATE 12-02-77

(This space for Federal or State office use)

APPROVED BY
CONDITIONS

TITLE

DATE

686
DEC 5 1977
O & G CONS. COMM.

*See Instructions on Reverse Side

Form 5-311
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPlicate*
(Other instructions on re-
verse side)

Form approved.
Budget Bureau No. 42-R1424.

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 <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input checked="" type="checkbox"/> dryhole		5. LEASE DESIGNATION AND SERIAL NO. 14-20-603-716
2. NAME OF OPERATOR Energy Reserves Group, Inc.		6. IF INDIAN, ALLOTTEE OR TRIBE NAME Navajo
3. ADDRESS OF OPERATOR P.O. Box 3280, Casper, Wyoming 82602		7. UNIT AGREEMENT NAME
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface 1,900' FSL & 2,200' FWL NW SW 1/4		8. FARM OR LEASE NAME Navajo "O"
14. PERMIT NO. 686	15. ELEVATIONS (Show whether DF, RT, CR, etc.) G.L. 5,407'; K.B. 5,420'	9. WELL NO. 7
		10. FIELD AND POOL, OR WILDCAT
		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 25-T41N-R30E
		12. COUNTY OR PARISH Apache
		13. STATE Arizona

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	CELL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input checked="" type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) <input type="checkbox"/>	

(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 above described well was drilled to 5,830' w/7-7/8" bit. Ran logs and 2 drill stem tests. No significant hydro-carbons were found. Permission is requested to plug and abandon as per tele-con between John Alexander and Mr. Phil McGrath on 11-20-77.

- 5,600'-5,300' w/ 85 sx. of Class "B" cement.
- 4,850'-4,650' w/ 95 sx. of Class "B" cement.
- 3,050'-2,850' w/140 sx. of Class "B" cement.
- 2,050'-1,850' w/ 90 sx. of Class "B" cement.
- 1,300'-1,100' w/120 sx. of Class "B" cement.
- 900'- 600' w/170 sx. of Class "B" cement.

Back off threaded casing head and screw on dry-hole marker in lieu of cement plug w/dry-hole marker temporarily.

18. I hereby certify that the foregoing is true and correct
SIGNED Joseph C. Hilligren TITLE Drilling Superintendent DATE 11/22/77
(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

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NOV 25 1977

O & G CONS. COMM.

Form 9-331
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIP DATE
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

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 <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>	5. LEASE DESIGNATION AND SERIAL NO. 14-20-603-716
2. NAME OF OPERATOR Energy Reserves Group, Inc.	6. IF INDIAN, ALLOTTEE OR TRIBE NAME Navajo
3. ADDRESS OF OPERATOR P. O. Box 3280, Casper, WY 82602	7. UNIT AGREEMENT NAME
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface 1900' FSL & 2200' FWL (NW SW $\frac{1}{4}$)	8. FARM OR LEASE NAME Navajo "0"
14. PERMIT NO.	9. WELL NO. 7
15. ELEVATIONS (Show whether DF, RT, GR, etc.) Graded G.L. 5407', K.B. 5420'	10. FIELD AND POOL, OR WILDCAT Teec Nos Pos - Ismay
	11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 25-T41N-R30E
	12. COUNTY OR PARISH 13. STATE Apache Arizona

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input checked="" type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) <input type="checkbox"/>	

(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 above described well was spudded at 11:00 P.M., 11-5-77.
Drilled 12-1/4" hole to 648' (K.B.)
Ran 16 jts., 632' (net), 8-5/8" O.D., 24# & 32#, K-55, 8RTH, SS, ST&C, R-2 & R-3
New casing set at 645' (K.B.). Cemented w/450 sx. of Class "B" cement w/2% CaCl2 and 1/4# Flocele/sx. Good returns throughout job. Plug Down at 8:15 P.M., 11-6-77.
Cut off and nipped up BOPE. Tested BOPE to 800 psi. Held O.K.
Drilled out w/7-7/8" bit.

RECEIVED

NOV 14 1977

D & G CONS. COMM.

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

SIGNED Robert C. Billings TITLE Operations Supt. - Drilling DATE 11-7-77

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

RECEIVED

APPLICATION FOR PERMIT TO DRILL OR RE-ENTER

NOV 2 1977

APPLICATION TO DRILL

RE-ENTER OLD WELL O & G CONS. COMM.

ENERGY RESERVES GROUP, INC.
NAME OF COMPANY OR OPERATOR

P. O. Box 3280 CASPER WYOMING 82602
Address City State

Drilling Contractor

Address

DESCRIPTION OF WELL AND LEASE

Federal, State or Indian Lease Number, or if fee lease, name of lessor Well number Elevation (ground)
14-20-603-716 "O" #7 5409' Ungraded

Nearest distance from proposed location to property or lease line: Distance from proposed location to nearest drilling, completed or applied--for well on the same lease:
1900 feet 1800 feet

Number of acres in lease: Number of wells on lease, including this well, completed in or drilling to this reservoir:
2560 7

If lease, purchased with one or more wells drilled, from whom purchased: Name Address
Amoco Production Company P.O. Box 591, Tulsa, Oklahoma

Well location (give footage from section lines) Section--township--range or block and survey Dedication (Comply with Rule 105)
1900 FSL & 2200 FWL Section 25-T41N-R30E 80 acres E/2 SW $\frac{1}{4}$

Field and reservoir (if wildcat, so state) County
Teec Nos Pos Apache

Distance, in miles, and direction from nearest town or post office
1 mile Northeast of Teec Nos Pos Trading Post

Proposed depth: Rotary or cable tools Approx. date work will start
5574' Rotary December 1977

Bond Status Active Organization Report Filing Fee of \$25.00
Amount \$25,000.00 On file July 1970 or attached Attached X

Energy Reserves Group, Inc. proposes to drill the referenced well with rotary tools. No cores are anticipated. Potential zones which may be tested are the Lower Ismay at 5439' and the Desert Creek at 5504'. Copies of all logs run will be furnished upon completion of the well. Our anticipated completion zone is the Lower Ismay.

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

William J. Frant by Alan B. Barner
Signature

October 28, 1977
Date

Permit Number: 686
Approval Date: 11-3-77
Approved By: *W.S. [Signature]*

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

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

Form No. 3

- Operator shall outline the dedicated acreage for both oil and gas wells on the plat.
- A registered professional engineer or land surveyor registered in the State of Arizona or approved by the Commission shall show on the plat the location of the well and certify this information in the space provided.
- All distances shown on the plat must be from the outer boundaries of the Section.
- Is the Operator the only owner in the dedicated acreage outlined on the plat below? YES NO
- If the answer to question four is "no," have the interests of all the owners been consolidated by communitization agreement or otherwise? YES NO If answer is "yes," Type of Consolidation _____
- If the answer to question four is "no," list all the owners and their respective interests below:

Owner	Land Description
CERTIFICATION	
I hereby certify that the information above is true and complete to the best of my knowledge and belief.	
Name <u>William J. Frant</u>	
Position <u>By Beau B. Barner</u>	
Field Services Administrator	
Company	
<u>Energy Reserves Group, Inc.</u>	
Date	
<u>October 28, 1977</u>	
I hereby certify that the well location shown on the plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.	
Date Surveyed	
<u>September 8, 1977</u>	
Registered Professional Engineer and/or Land Surveyor	
<u>E.L. Poteet</u>	
Certificate No.	
<u>AZ Surveyor #5279</u>	

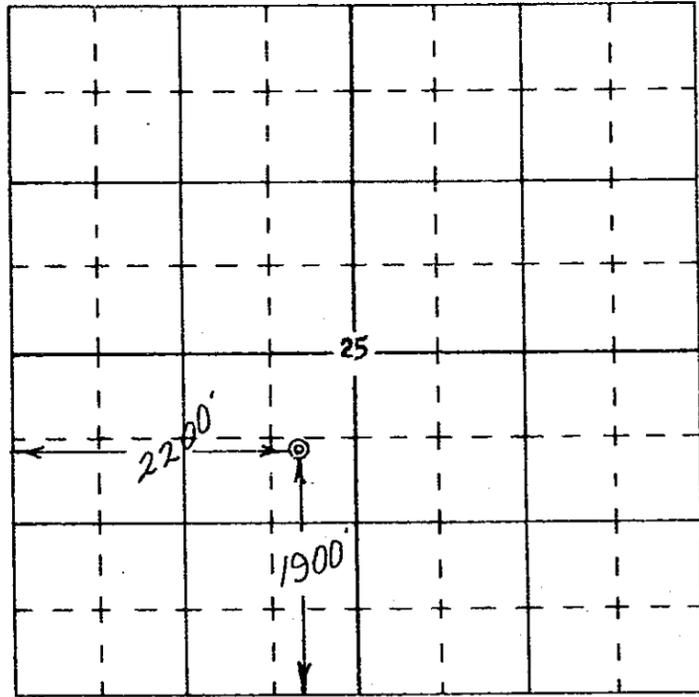
0	330	660	990	1320	1650	1980	2310	2640	2000	1500	1000	500	0
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PROPOSED CASING PROGRAM

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement
8-5/8"	24#	MU-46	Surf.	700'+	0 - 700'	400 sx.
5-1/2"	14#	K-5	Surf.	5574'+	5174 - 5574'	150 sx.

COMPANY Energy Reserves Group, Inc.
 Well Name & No. Navajo "O" No. 7 Lease No. _____
 Location 1900 feet from South line and 2200 feet from West line
 Being in Apache County, Arizona
 Sec. 25, T.41N., R.30E., G. & S.R.M.
 Ground Elevation 5409

RECEIVED
 NOV 2 1977
 O & G CONS. COMM.

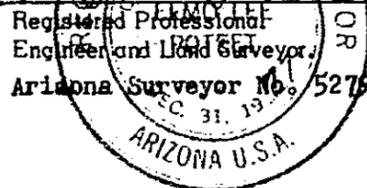


Scale - 4 inches equals 1 mile

Surveyed September 8, 19 77

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

Seal:





PERMIT TO DRILL

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

To: ENERGY RESERVES GROUP, INC.
(OPERATOR)

to drill a well to be known as

NAVAJO "O" #7
(WELL NAME)

located 1900 FSL & 2200 FWL (NE SW)

Section 25 Township T41N Range R30E, APACHE County, Arizona.

The EAST HALF OF THE SOUTHWEST QUARTER of said
Section, Township and Range is dedicated to this well.

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

Issued this 3RD day of NOVEMBER, 1977.

OIL AND GAS CONSERVATION COMMISSION

By W. E. [Signature]
EXECUTIVE SECRETARY

PERMIT N^o 686

RECEIPT NO. 1000
API NO.: 02-001-20235

State of Arizona
Oil & Gas Conservation Commission
Permit to Drill
FORM NO. 27

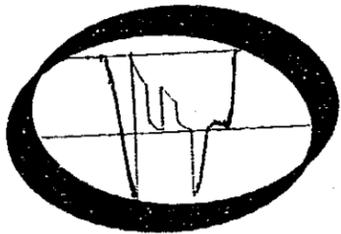
SAMPLES ARE REQUIRED

Formation Testing Service Report

RECEIVED

DEC 0 1977

O & G CONS. COMM.



NAVAJO "0"

7

1

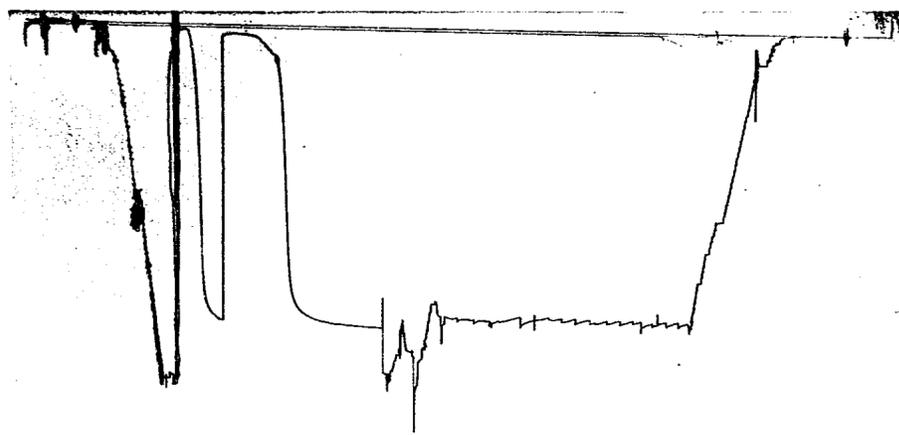
5487

5507

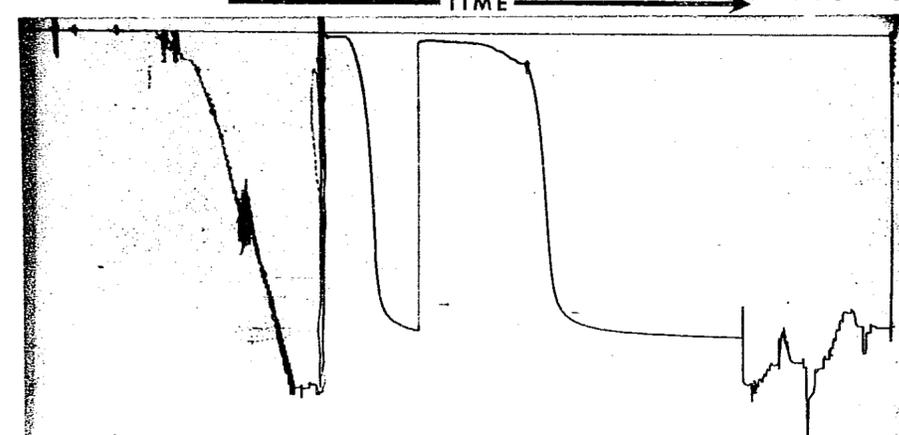
HALLIBURTON SERVICES, INCORPORATED

HALLIBURTON SERVICES
DUNCAN, OKLAHOMA

686



281826-2033



281826-2032

Each Horizontal Line Equal to 1000 p.s.i.

FLUID SAMPLE DATA				Date	Ticket Number
Sampler Pressure	300	P.S.I.G. at Surface		11-17-77	281826
Recovery: Cu. Ft. Gas	0.22			Kind of Job	HOOK WALL STRADDLE
cc. Oil	75	Oil & mud		Halliburton District	FARMINGTON
cc. Water	2075			Tester	MR. SMITH
cc. Mud				Witness	MR. ALEXANDER
Tot. Liquid cc.	2150			Drilling Contract	COLEMAN DRILLING COMPANY IC 5
Gravity		* API @ *F.		EQUIPMENT & HOLE DATA	
Gas/Oil Ratio		cu. ft./bbl.		Formation Tested	Upper Ismay
		RESISTIVITY	CHLORIDE CONTENT	Elevation	5420' Ft.
Recovery Water	.249 @ 56 *F.		ppm	Net Productive Interval	10' Ft.
Recovery Mud	1.64 @ 65 *F.		ppm	All Depths Measured From	Rotary Kelly Bushing
Recovery Mud Filtrate	@ *F.		ppm	Total Depth	5830' Ft.
Mud Pit Sample	2.78 @ 67 *F.		ppm	Main Hole/Casing Size	7 7/8"
Mud Pit Sample Filtrate	@ *F.		ppm	Drill Collar Length	539' I.D. 2 1/4"
Mud Weight	9.4	vis	85 sec	Drill Pipe Length	4906' I.D. 3.826"
				Packer Depth(s)	5481'-5487' 5507-5513' Ft.
				Depth Tester Valve	5460' Ft.
Cushion	TYPE	AMOUNT	Depth Back Pres. Valve	Surface Choke	Bottom Choke
			Ft.	3/4" ADJ.	3/4"
Recovered		94	Feet of Oil & gas cut mud		
Recovered			Feet of		
Recovered			Feet of		
Recovered			Feet of		
Recovered			Feet of		
Remarks	Opened tool for 20 minute first flow with a very weak blow increasing to good blow. Closed tool for 59 minute initial closed in pressure. Reopened tool for 93 minute second flow with a weak blow increasing to good blow in 5 minutes and continued throughout test. Closed tool for final closed in pressure. Trip out at 21:25 - pulled 4 stands and reversed out. Reverse out sub plugged-waited on daylight and came out of hole.				
TEMPERATURE	Gauge No. 2033	Gauge No. 2032	Gauge No.	TIME	
	Depth: 5464' Ft.	Depth: 5468' Ft.	Depth:	Hour Clock	Tool A.M.
Est. *F.	Blanked Off NO	Blanked Off NO	Blanked Off	Hour Clock	Opened 15:35 P.M.
Actual 130 *F.	Pressures		Pressures		By-pass 21:25 P.M.
	Field	Office	Field	Office	Reported
Initial Hydrostatic	2673	2694	2678	2695	Minutes
Flow Initial	54	36	27	26	Minutes
Flow Final	54	40	27	34	20
Closed in	2243	2250	2257	2259	60
Second Period Flow Initial	80	94	79	79	20
Flow Final	267	231	212	242	90
Closed in	2297	2288	2279	2292	180
Third Period Flow Initial					178
Flow Final					
Closed in					
Final Hydrostatic	2646	2661	2652	2662	

FORMATION TEST DATA

Legal Location: NAVAJO "0" Lease Name: 7 Well No.: 5487' - 5507' Field Area: TERC NOS POZ County: ARIZONA State: ARIZONA

ENERGY RESERVES GROUP INCORPORATED



Gauge No.		2033		Depth		5464'		Clock No. 9756		24 hour		Ticket No. 281826	
First Flow Period		Closed In Pressure		Second Flow Period		Closed In Pressure		Third Flow Period		Closed In Pressure		Third Flow Period	
Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $t + \frac{\theta}{\theta}$	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $t + \frac{\theta}{\theta}$	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $t + \frac{\theta}{\theta}$	Time Defl. .000"	PSIG Temp. Corr.
0	.000	36		.000	94	.000		.000	231				
1	.067	40	131*	.0594	67**	.0334		.0334	761***				
2			340	.1089	70	.0734		.0734	1952				
3			803	.1584	76	.1134		.1134	2137				
4			1749	.2079	99	.1534		.1534	2190				
5			2071	.2574	168	.1934		.1934	2220				
6			2160	.3070	231	.2334		.2334	2239				
7			2199			.2734		.2734	2253				
8			2223			.3134		.3134	2261				
9			2239			.3534		.3534	2267				
10			2250			.3934		.3934	2272				
11						.4334		.4334	2277				
12						.4734		.4734	2281				
13						.5134		.5134	2284				
14						.5534		.5534	2285				
15						.5940		.5940	2288				

Gauge No.		2032		Depth		5468'		Clock No. 10445		12 hour	
First Flow Period		Closed In Pressure		Second Flow Period		Closed In Pressure		Third Flow Period		Closed In Pressure	
Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $t + \frac{\theta}{\theta}$	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $t + \frac{\theta}{\theta}$	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $t + \frac{\theta}{\theta}$
0	.000	26		.000	79	.000		.000	242		
1	.139	34	105*	.1229	61**	.0686		.0686	737***		
2			310	.2253	69	.1509		.1509	1944		
3			737	.3277	77	.2332		.2332	2153		
4			1592	.4301	106	.3155		.3155	2205		
5			2076	.5325	183	.3978		.3978	2232		
6			2167	.6350	242	.4801		.4801	2249		
7			2204			.5624		.5624	2260		
8			2229			.6447		.6447	2268		
9			2248			.7270		.7270	2272		
10			2259			.8093		.8093	2276		
11						.8916		.8916	2280		
12						.9739		.9739	2284		
13						1.0562		1.0562	2288		
14						1.1385		1.1385	2291		
15						1.2210		1.2210	2292		

Reading Interval 6 15 12 Minutes

REMARKS: *First interval equal to 5 minutes **First interval equal to 18 minutes ***First interval equal to 10 minutes

SPECIAL PRESSURE DATA

TICKET NO. 281826

	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing	6"	3"	1'	
Reversing Sub				
Water Cushion Valve				
Drill Pipe	4 1/2"	3.826"	4906'	
Drill Collars	6 1/4"	2 1/4"	539'	
Handling Sub & Choke Assembly				
Dual CIP Valve	5"	3/4"	6'	5456'
Dual CIP Sampler	5"	3/4"	5'	5460'
Hydro-Spring Tester				
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"		4'	5464'
Hydraulic Jar	5"	1"	6'	
VR Safety Joint	5"	1"	3'	
Pressure Equalizing Crossover	5"	3/4"	1'	
Packer Assembly	6 3/4"	1 1/2"	6'	5481'
Distributor				
Packer Assembly	6 3/4"	1 1/2"	6'	5487'
Flush Joint Anchor	5 3/4"	2 1/2"		
Pressure Equalizing Tube	1"	3/4"	27'	
Blanked-Off B.T. Running Case	5"		4'	5468'
Drill Collars				
Anchor Pipe Safety Joint				
Packer Assembly	6 3/4"	1 1/2"	6'	5507'
Distributor				
Packer Assembly	6 3/4"	1 1/2"	6'	5513'
Anchor Pipe Safety Joint				
Side Wall Anchor	6 5/8"	2 7/8"	5'	5518'
Drill Collars				
Flush Joint Anchor				
Blanked-Off B.T. Running Case				
Total Depth				5830'

November 3, 1977

Mr. William J. Fiant
Field Services Administrator
Energy Reserves Group, Inc.
P.O. Box 3280
Casper, Wyoming 82602

Re: Energy Reserves Group, Inc.
Navajo Tribal "O" No. 7
NE/SW/4 Sec. 25, T41N, R30E
Apache County, Arizona
State Permit No. 686

Dear Mr. Fiant:

Attached is your approved application to drill, your
drilling permit, and receipt for the \$25.00 filing fee.

If we can be of any assistance, please advise.

Very truly yours,

W. E. Allen
Director
Enforcement Section

WEA:os
Enc.