

County APACHE

Field Area: EAST BOUNDARY BUTTE

Lease No. 14-20-603-227

Well Name Merrion Oil & Gas 8-30-82
Merrion & Bayless #23-11 Navajo
Shell Oil Company #23-11 Navajo

Location NE SW Sec 11 Twp 41N Range 28E Footage 1980 FSL, 1980 FWL
Elev 5424 Gr 5434 KB Date 3-18-59 Spud 3-15-81 P+A Completed 3-15-81 P+A Total Depth 5513

Contractor _____

Status: PROD

Casing Size 8 5/8 Depth 565 Cement 200
5 1/2 5512 300

Drilled by Rotary X
Cable Tool _____

Production Horizon Penn Hermosa
Initial Production F 43 BOPD & 970 MCFPD:
2/64" chk.

REMARKS Gas condensate producing

10-12-67 operator changed: Consolidated Gas & Oil Co, Inc

Humble finished structural cross section (comparative) log dated 11-10-66

on 1-31-69. See log file #28 - East Boundary Butte File.

Consolidated sold its interest to Merrion & Bayless effective Aug 1, 1974

covering well nos. 22, 69, 490, 514, & 518

Elec _____
Logs Driller's Microlog; GRN; IE
Applic. Plugging Completion
to Plug Record Report X

Sample Log Am Strat
Sample Descript. _____
Sample Set T-1012 P-378, 588
Core Analysis _____
DSTs _____

Water well accepted by _____

Bond Co. U.S.F. & G 31380-13-99-68 010130-972-74 filed in P/N 518

Bond Am't \$ \$25,000 Canceled _____ Date _____ Organization Report None

Filing Receipt 59871 Dated 3-5-59 Well Book X Plat Book X

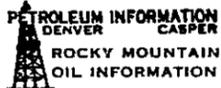
API No. 02-001-05190 Loc. Plat X Dedication All 11-41N-28E

(Sample 378, 588, 1537)

Permit Number 69

Date Issued 3-5-59

69
ARIZONA
APACHE COUNTY
BOUNDARY BUTTE, E. (2)



Twp 41n-28e
Section 11
c ne sw
1980 n/s 1980 e/w

OPR: Shell Oil

WELL #: 23-11 E. Boundary Butte

ELEV: 5424 Gr.

DSTS. & CORES:

SPUD: 3-18-59 COMPL: 4-25-59

*TOPS: Log-Samples

TD: 5513 PB: 4859

Paradox 4862

DST 4177-4282, 1 hr 20
min, rec 852 fluid, FP
187#, SIP (1 hr) 1301#.
DST 4413-35, 1 hr, rec
330 fluid, FP 219#, SIP
(1 hr) 1304#. Crd 4550-

CSG: 8-5/8" @ 565 w/200
5 1/2" @ 4882 w/325

PERF: 4460-4608; flowed 45 BO in 12
hrs, cut 2% load wr.

63, rec 13 ls, shaley in part. Crd 4563-85, rec 22 ls,
sandy & shaley in part. DST 4461-4511, 1 hr, rec 2850
fluid, FP 700#, SIP (1 hr) 1380#. DST 4548-4635, 1 hr,
rec 500 fluid, FP 223#, SIP (1 hr) 1161#. DST 4876-5040,
1 hr, rec 1740 fluid, FP 836#, SIP (1 hr) 1522#. Crd
5467-99, rec 30 ls & sh. DST 4450-5513, 1 1/2 hrs, rec
1140 fluid, FP 698#, SIP (1 hr) 1789#. DST 5062-5126,
1 hr, rec 3120 fluid, FP 1473#, SIP (1 hr) 1615#. DST
4708-4800, 1 hr, rec 10 fluid, FP 35#, SIP (1 hr) 2180#.

PROD. ZONE: 4460-4608.

INIT. PROD: IPF 104 BO, 775 MCFGPD,
20/64" ck, TP 940#, GOR 8270-1.

Contr: Rutledge.

Form 3160-5
(November 1983)
(Formerly 9-331)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPL
(Other instructions
verse side)

Form approved.
Budget Bureau No. 1004-0135
Expires August 31, 1985

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
Merrion Oil & Gas Corporation

3. ADDRESS OF OPERATOR
P. O. Box 840, Farmington, New Mexico 87499

4. LOCATION OF WELL (Report location clearly and in accordance with any State laws.
See also space 17 below.)
At surface
1980' FSL and 1980' FWL

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SEP 17 1986

14. PERMIT NO.

15. ELEVATIONS (Show whether
5437' KB

BUREAU OF LAND MANAGEMENT
FARMINGTON RESOURCE AREA

5. LEASE DESIGNATION AND SERIAL NO.
14-20-603-227

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
Navajo Tribe

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
Navajo

9. WELL NO.
23-11 (P/A 69)

10. FIELD AND POOL, OR WILDCAT
East Boundary Butte

11. SEC., T., R., M., OR BLK. AND
SURVEY OR AREA
Sec. 11, T41N, R28E

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:

TEST WATER SHUT-OFF
FRACTURE TREAT
SHOOT OR ACIDIZE
REPAIR WELL
(Other)

FULL OR ALTER CASING
MULTIPLE COMPLETE
ABANDON*
CHANGE PLANE

WATER SHUT-OFF
FRACTURE TREATMENT
SHOOTING OR ACIDIZING
(Other)

SUBSEQUENT REPORT OF:

REPAIRING WELL
ALTERING CASING
ABANDONMENT*

Reclamation
(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.)

Reclamation for this P & A'd well has been completed.

RE
NOV 24
O & G

RECEIVED
NOV 24 1986
O & G

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

SIGNED

TITLE Operations Manager

ACCEPTED FOR RECORD 9/11/86

(This space for Federal or State office use)

APPROVED BY

TITLE

SEP 24 1986

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

FARMINGTON RESOURCE AREA
FARMINGTON, NEW MEXICO

BY

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

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NOV 24 1986
UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
O & G CONS. COMM

69

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 Form 9-331-C for such proposals.)

1. oil well gas well other

2. NAME OF OPERATOR
J. Gregory Merrion & Robert-L. Bayless

3. ADDRESS OF OPERATOR
P. O. Box 507, Farmington, NM 87401

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 1980' FSL & 1980' FWL
AT TOP PROD. INTERVAL:
AT TOTAL DEPTH:

5. LEASE
14-20-603-227

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
Navajo Tribe

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
Navajo

9. WELL NO.
23-11

10. FIELD OR WILDCAT NAME
East Boundary Butte

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Section 11, T41N, R28E

12. COUNTY OR PARISH
Apache

13. STATE
Arizona

14. API NO.

15. ELEVATIONS (SHOW DF, KDB, AND WD)
5437 K.B.

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:	SUBSEQUENT REPORT OF:
TEST WATER SHUT-OFF <input type="checkbox"/>	<input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	<input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	<input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	<input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	<input type="checkbox"/>
MULTIPLE COMPLETE <input type="checkbox"/>	<input type="checkbox"/>
CHANGE ZONES <input type="checkbox"/>	<input type="checkbox"/>
ABANDON* <input type="checkbox"/>	<input checked="" type="checkbox"/>
(other)	

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

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FEB 21 1985
OIL & GAS DIV.
DISC 7

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.)*

- 3-10-81 Move in, rig up Bedford, Inc. Go in hole w/ 2-7/8" tubing. Spot 25 sx plug from 4599 to 4410'. Pull 60 jts tubing.
- 3-11-81 Nipple down wellhead. Cut surface casing below Braden head.
- 3-12-81 Finish cutting off Braden head, break out casing donut. Set hydraulic jacks stretch 5-1/2" casing. Southwest Survey shot casing off @ 1398'.
- 3-13-81 Spot 35 sx plug at stub, (50' in & 50' out). Pull casing to 603', spot 35 sx plug, (50' in & 50' out), pull casing.
- 3-14-81 Load out jacks, install P & A marker with 10 sx surface plug. Rig down.
- 3-15-81 Clean up location.

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

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

SIGNED _____ TITLE Co-Owner DATE 4-23-81
(This space for Federal or State office use)

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

APPROVED
AS AMENDED

Approved as to plugging of the well bore.
Liability under bond is retained until
surface restoration is completed.

MMOCC
*See Instructions on Reverse Side

OPERATOR

FEB 11 1985

M. MILLENBACH
AREA MANAGER

UNITED STATES RECEIVED
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
NOV 24 1986

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 Form 9-331-C for such proposals.)

1. oil well gas well other

2. NAME OF OPERATOR
J. Gregory Merrion & Robert L. Bayless

3. ADDRESS OF OPERATOR
P.O. Box 507, Farmington, NM 87401

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 1980' FSL & 1980' FWL
AT TOP PROD. INTERVAL: same
AT TOTAL DEPTH: same

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

5. LEASE
14-20-603-227

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
Navajo Tribe

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
Navajo

9. WELL NO.
23-11

10. FIELD OR WILDCAT NAME /
East Boundary Butte

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Section 11, T41N, R28E

12. COUNTY OR PARISH | 13. STATE
Apache | arizona

14. API NO.

15. ELEVATIONS (SHOW DF, KDB, AND WD)
5437 K.B.

REQUEST FOR APPROVAL TO: SUBSEQUENT REPORT OF:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

PULL OR ALTER CASING

MULTIPLE COMPLETE

CHANGE ZONES

ABANDON*

(other)

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

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.)*

Will run tubing and spot 25 sax cement from 4599 to 4410.
 Will attempt to cut off and pull casing from 3900.
 Will spot 30 sax across top of stub (50' in & 50' out).
 Will spot 35 sax 2000 - 1900.
 Will spot 35 sax 603 - 503 at base of surface casing.
 Will put cement in top of surface casing and erect dry hole marker.

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JUN 2 1980
U. S. GEOLOGICAL SURVEY
FARMINGTON, NM

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

18. I hereby certify that the foregoing is true and correct
SIGNED J. Gregory Merrion TITLE Co-Owner DATE June 25, 1980

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

OPERATOR

*See Instructions on Reverse Side

APPROVED

JUL 23 1980
James F. Sims
JAMES F. SIMS
DISTRICT OIL & GAS SUPERVISOR

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 Shell Oil Company		Address 705 West Municipal Drive, Farmington, N.M.		
Lease Name East Boundary Butte		Well Number 23-11	Field & Reservoir East Boundary Butte	
Location 1980' N and 1980' E of SW Corner Section 11, T41N, R28E, G&SRM				
County Apache	Permit number 69	Date Issued 3-5-59	Previous permit number	Date Issued
Date spudded 3-18-59	Date total depth reached 4-15-59	Date completed, ready to produce 4-25-59	Elevation (DF, XXXXXXXXXX) 5435.7 feet	Elevation of casing hd. flange feet
Total depth 5513'	P.B.T.D. 4859	Single, dual or triple completion? Single		If this is a dual or triple completion, furnish separate report for each completion.
Producing interval (s) for this completion 4460-4608		Rotary tools used (interval) 0 - 5513'		Cable tools used (interval) None
Was this well directionally drilled? No	Was directional survey made? TOTCO (only)	Was copy of directional survey filed? No	Date filed ---	
Type of electrical or other logs run (check logs filed with the commission) Electrical Survey, Gamma Ray-Neutron and Microlog				Date filed 4-59

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"	28	565'	350	None
Production	7-7/8"	5-1/2"	14	4882'	325cu.ft.	None

TUBING RECORD

LINER RECORD

Size	Depth set	Packer set at	Size	Top	Bottom	Sacks cement	Screen (ft.)
2-7/8" in.	4600 ft.	---	---	ft.	ft.		

PERFORATION RECORD				ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD	
Number per ft.	Size & type	Depth Interval	Am't. & kind of material used	Depth Interval	
2	1/2" Bullet	4540-4596 & 4603-08	2000 regular acid and	4460-4608	
4	1/2" Bullet	4460-4510'	500 gallons mud acid		

INITIAL PRODUCTION

Date of first production 4-25-59		Producing method (indicate if flowing, gas lift or pumping—if pumping, show size & type of pump): Flowing					
Date of test 4-26-59	Hrs. tested 24	Choke size 20/64"	Oil prod. during test 104 bbls.	Gas prod. during test 775 MCF	Water prod. during test --- bbls.	Oil gravity approx. 44 - API (66°)	
Tubing pressure 940 psi	Casing pressure 1100 psi	Cal'ed rate of Production per 24 hrs.	Oil 104 bbls.	Gas 775 MCF	Water --- bbls.	Gas-oil ratio 7450	
Disposition of gas (state whether vented, used for fuel or sold): Temporarily being vented							

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am an **Exploitation Engineer** of the **Shell Oil Company** (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 **May 25, 1959**

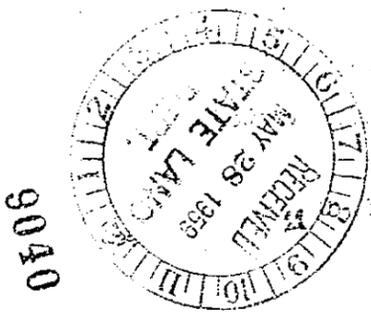
Signature *B.W. Shepard*

STATE OF ARIZONA STATE LAND COMMISSIONER
Well Completion or Recompletion Report and Well Log
Form No. P-7 File two copies
Authorized by Order No. **4-6-59**
Effective **April 6,** 19 **59**

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DETAIL OF FORMATIONS PENETRATED

Formation	Top	Bottom	Description*
Shinarump	1780	1896	
Moenkopi	1896	2056	
Cutler	2056	4036	
Hermosa	4036	4862	
Paradox	4862	--	



* Show all important zones of porosity, detail 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 drillers log or other acceptable log of well.

This Well Completion or Recompletion report and well log shall be filed with the State Land Commissioner not later than thirty days after project completion.

**OPERATOR'S CERTIFICATE OF COMPLIANCE AND AUTHORIZATION
TO TRANSPORT OIL OR GAS FROM LEASE**

Federal, State or Indian Lease Number, or lessor's name if fee lease 16-20-603-227	Field East Boundary Butte	Reservoir Paradox
Survey or Sec-Twp-Rge Sec. 11 T41N, R28E	County Apache	State Arizona
Operator J. Gregory Merrion and Robert L. Bayless		
ADDRESS ALL CORRESPONDENCE CONCERNING THIS FORM TO:		
Street P.O. Box 507	City Farmington	State New Mexico 87401
Above named operator authorizes (name of transporter) Permian Corporation		
Transporter's street address P.O. Box 1183	City Houston	State Texas 77001
Field address Petroleum Plaza Building Farmington, New Mexico 87401 Oil, condensate, gas well gas, casinghead gas		
To transport	100 % of the	Oil from said lease.
OTHER GATHERERS TRANSPORTING FROM THIS LEASE ARE AS FOLLOWS:		
Name of gatherer	% transported	Product transported
Merrion & Bayless	100	Casinghead Gas
Indicate whether or not this certificate is for a new lease. If not a new lease, indicate whether or not it is a change of operator, change of lease name, change of gatherer, or a consolidation or subdivision of leases and give effective date of change. Change of operator and change of gatherers.		

The undersigned certifies that the rules and regulations of the State of Arizona Oil & Gas Conservation Commission have been complied with in drilling and producing operations on this lease, except as noted above, and that the above transporter is authorized to transport the above specified percentage of the allowable oil or gas produced from the above described property, and that this authorization will be valid until further notice or until cancelled by the State of Arizona Oil & Gas Conservation Commission.

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Co-Owner of the Merrion & Bayless (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 October 24, 1974
Date approved: 10-29-74
By: [Signature]
Permit No. _____

[Signature]
Signature

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OCT 29 1974

O & G Comm. _____

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
Operator's Certificate of Compliance & Authorization to
Transport Oil or Gas from Lease
File Two Copies
Form No. 8

DESIGNATION OF OPERATOR

Navajo Tribe Oil & Gas
Mining Lease Contract No.
14-20-603-227

The undersigned is the record holder of Lease: (Number or name of lease and description of entire lease acreage) in Apache County, Arizona: All of Sections 11, 12, 13 & 14, Township 41 North, Range 28 East, G&SRM

and hereby designates

Name: J. Gregory Marion and Robert L. Bayless,

Address: 205 Petroleum Center Bldg,
Farmington, New Mexico

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SEP 30 1974

O & G CONS. COMM.

as his operator and local agent, with full authority to act in his behalf in complying with the terms of the lease and all regulations, whether Federal, Indian, State, or local, applicable thereto and on whom may be served written or oral instructions in securing compliance with all the applicable lease terms, and rules and regulations of the Oil and Gas Conservation Commission, State of Arizona, with respect to:

(Describe only the acreage to which this designation applies)

Same as above (Entire lease acreage)

It is understood that this designation of operator does not relieve the lessee of responsibility for compliance with the terms of the lease and with all the applicable rules and regulations of the Oil and Gas Conservation Commission, State of Arizona. It is understood that this designation of operator does not constitute an assignment of any interest in the lease.

In case of default on the part of the designated operator, the record holder of the lease remains primarily responsible for and will make full and prompt compliance with all applicable lease terms, the rules and regulations of the Oil and Gas Conservation Commission, State of Arizona, or orders of other appropriate regulatory governmental agencies.

The lessee agrees promptly to notify all proper authorities and appropriate regulatory governmental agencies on any change in the designated operator.

The designated operator agrees to promptly notify all proper authorities of any change of his address during the period in which this designation of operator is in force.

September 27, 1974

(Date)

Consolidated Oil & Gas, Inc. *RR*
J. G. Marion
Lessee Vice-President

Lessee Vice-President

(Date)

Designated Operator

(If this Designation of Operator applies to a State of Arizona Oil and Gas Lease, copy of this designation of operator must be filed with the State Land Department.)

SUNDY NOTICES AND REPORTS ON WELLS

1. Name of Operator Consolidated Oil & Gas, Inc.
 2. OIL WELL GAS WELL OTHER (Specify) _____
 3. Well Name East Boundary Butte #23-11
 Location NE SW Quarter Section, 1980' FSL and 1980' FWL
 Sec. 11 Twp. 41N Rgc. 28E County Apache, Arizona.
 4. Federal, State or Indian Lease Number, or lessor's name if fee lease _____
Navajo Tribe 14-20-603-227
 5. Field or Pool Name East Boundary Butte

6. 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"/>	MONTHLY PROGRESS	<input type="checkbox"/>
FRACTURE TREAT	<input type="checkbox"/>	DIRECTIONAL DRILL	<input type="checkbox"/>	REPAIRING WELL	<input checked="" type="checkbox"/>
SHOOT OR ACIDIZE	<input type="checkbox"/>	PERFORATE CASING	<input type="checkbox"/>	ALTERING CASING	<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>	CHANGE PLANS	<input type="checkbox"/>	ABANDONMENT	<input type="checkbox"/>
(OTHER)	<input type="checkbox"/>		(OTHER)	<input type="checkbox"/>	<input type="checkbox"/>

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

7. 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.)

8/7-9/73

(Had to wait on pulling unit nearly 1-1/2 months following large influx of water). Ran packer in hole on tubing. By series of setting packer and pressure testing, found casing held pressure below 4618' (10' below the bottom perfs) and above 4445' (15' above the top perfs). However, at 4617' the casing accepted fluid at several BPM at 500#. With the packer set at 4600' between the second and third set of perfs (the third set believed to be in a tight, unproductive interval based on logs and DST), the hole accepted fluid at same rate and pressure as at 4617'. Set CI BP at 4599' by wireline to isolate the bottom set of perfs and the apparent hole in casing below the perfs from the rest of the wellbore. Returned well to pumping.

This well was sold to Merrion and Bayless effective August 1, 1974.

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

Signed Floyd E. Ellison, Jr. Title Area Production Mgr. Date Nov. 5, 1974

Permit No. 69

RECEIVED

NOV 7 1974

O & G CONS. COMM.

STATE OF ARIZONA
 OIL & GAS CONSERVATION COMMISSION
 Sundry Notices and Reports On Wells
 File Two Copies
 Form No. 25

SUNDRY NOTICES AND REPORTS ON WELLS

1. Name of Operator Consolidated Oil & Gas, Inc.
 2. OIL WELL GAS WELL OTHER (Specify) _____
 3. Well Name East Boundary Butte #23-11
 Location NE SW Quarter Section, 1980' FSL and 1980' FWL
 Sec. 11 Twp. 41N Rge. 28E County Apache, Arizona.
 4. Federal, State or Indian Lease Number, or lessor's name if fee lease
Navajo Tribe 14-20-603-227
 5. Field or Pool Name East Boundary Butte

6. 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"/>
FRACTURE TREAT	<input type="checkbox"/>	DIRECTIONAL DRILL	<input type="checkbox"/>
SHOOT OR ACIDIZE	<input type="checkbox"/>	PERFORATE CASING	<input type="checkbox"/>
REPAIR WELL	<input checked="" type="checkbox"/>	CHANGE PLANS	<input type="checkbox"/>
(OTHER)	_____	(OTHER)	_____

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

7. 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.)

Overnight, subject well went to 360 BWPD, no oil, from approximately 50 BO + 210 BW + 515 Mcf gas/day. Water analysis after this change showed 38,000 ppm Chloride compared to 1,042 ppm Chloride before, indicating the water is extraneous and more than likely coming from below the producing interval.

Proposed work to be done immediately:

1. Pull rods, pump and tubing.
2. Run packer on tubing
3. Pressure test casing above and below perforations 4460-4608 to determine where the fluid is entering wellbore.
4. If entry is below perfs, set CIBP below perfs and above entry. Return to production.
5. If entry is above perfs, repair and return to production.

APPROVED
 OIL & GAS CONSERVATION COMMISSION
 STATE OF ARIZONA
 By W.E. [Signature]
 Date 10-3-73

8. I hereby certify that the foregoing is true and correct.
 Signed Floyd E. Ellison Jr. Title Area Production Mgr Date Aug. 9, 1973

Permit No. 69 RECEIVED
 AUG 13 1973
 O & G CONS. COMM.

STATE OF ARIZONA
 OIL & GAS CONSERVATION COMMISSION
 Sundry Notices and Reports On Wells
 File Two Copies
 Form No. 25

**ARIZONA OIL AND GAS CONSERVATION COMMISSION
DELIVERABILITY TEST REPORT**

Type Test <input type="checkbox"/> Initial <input checked="" type="checkbox"/> Annual <input type="checkbox"/> Special		Test Date 6-10-69	Well Name Shell	
Company Consolidated Oil & Gas		Connection El Paso Natural Gas		Permit No. File 69
Pool East Boundary Butte		Formation Hermosa Paradox		Unit
Completion Date 4-25-59	Total Depth 5513	Plug Back TD 4859	Elevation 5437 KB	Farm or Lease Name Navajo
Csg. Size 5.500	Wt. 14.0	d 5.012	Set At 4882	Perforations: From 4460 To 4608
Tbg. Size 2.875	Wt. 6.40	d 2.441	Set At 4600	Perforations: From Open To Ended
Type Well — Single — Bradenhead — G.G. or G.O. Multiple Single			Packer Set At None	County Apache
Producing Thru Tubing	Reservoir Temp. °F @ ?	Mean Annual Temp. °F 60	Baro. Pres. — P _a 12.0	State Arizona
L 4600	H 4600	Gg. 0.648	% CO ₂ 0.04	% N ₂ 0.538
			Prover ---	% He --
			Meter Run x	Taps Flanged
FLOW DATA		TUBING DATA		CASING DATA
NO.	Prover Line Size	X	Choke Orifice Size	Press. p.s.i.g.
SI				815
1.	3.00 x 1.500			700
				--
				4 days
				24 hrs.
NO.	Coefficient (24-Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.
1.				
				1,969
NO.	P _r	Temp. °R	T _r	Z
1.				
				Gas Liquid Hydrocarbon Ratio
				A.P.I. Gravity of Liquid Hydrocarbons
				Specific Gravity Separator Gas
				Specific Gravity Flowing Fluid
				Critical Pressure
				Critical Temperature
NO.	P _t	P ₂	P _c ² - P _t ²	P _w
1.				712

$$\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} = \frac{512,533}{176,985} = 2.8959$$

$$\text{Log} \frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} = \text{---}$$

$$\left(\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right)^n = 2.470$$

$$n \text{Log} \frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} = \text{---}$$

$$\text{Deliv.} = Q \left(\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right)^n = 4,863$$

Deliv. 4,863 Mcfd
n 0.85
OCCC Approved 7-10-68
(Source of n)

(1) Assumed P_d = 50% P_c
Calculated by:
Ewell N. Walsh, P. E., President
Walsh Engineering & Prod. Corp.

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Prod. Supt. of the Consolidated Oil & Gas (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 therein are true, correct and complete to the best of my knowledge.

Date August 5, 1969
Signature Geo. Case

STATE OF ARIZONA OIL & GAS
CONSERVATION COMMISSION
Deliverability Test Report (File two copies)
Form No. 20



X. Chano

July 28, 1969

Memo to Files 32 X
22 X
69

Franco Western Oil Navajo #1
Shell Oil Navajo #2
Shell Oil Navajo #23-11

Mr. Leo Case, Consolidated Oil & Gas, Inc, Called this date. He informed this office that he has tested the captioned wells and sent the information to Red Walsh in Farmington. He telephoned Red Walsh this date and Mr. Walsh said he does have the forms with the test information on them but has not had time to mail them to this office. He will mail the forms to us when he finishes with them.

jf

J

69

O.K.

**ARIZONA OIL AND GAS CONSERVATION COMMISSION
DELIVERABILITY TEST REPORT**

Type Test <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special				Test Date 8-13-68		Well Name Shell	
Company Consolidated Oil & Gas			Connection El Paso Natural Gas			Permit No. File 69	
Pool E. Boundary Butte			Formation Hermosa Paradox			Unit	
Completion Date 4-25-59		Total Depth 5513		Plug Back TD 4859		Elevation 5437 KB	Farm or Lease Name Navajo
Csg. Size 5.500	Wt. 14.0	d 5.012	Set At 4882	Perforations: From 4460 To 4608		Well No. 23-11	
Tbg. Size 2.875	Wt. 6.40	d 2.441	Set At 4600	Perforations: From Open To Ended		N - W Sec. Twp. Rge. NE SW 11 41N 28E	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At None		County Apache	
Producing Thru Tubing		Reservoir Temp. °F e ?		Mean Annual Temp. °F 60		Baro. Pres. - P _a 12.0	
L 4600	H 4600	Gg. 0.648	% CO ₂ 0.04	% N ₂ 0.538	Prover ---	% He ---	Meter Run X
							Taps Flanged
FLOW DATA				TUBING DATA		CASING DATA	
NO.	Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h w	Temp. °F	Duration of Flow
SI							4 days
1.	3.00 x 1.500						24 hrs.
NO.	Coefficient (24-Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1.							1.438
							From integration of chart
NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mct/bbl.	
1.					A.P.I Gravity of Liquid Hydrocarbons	Deg.	
					Specific Gravity Separator Gas		
					Specific Gravity Flowing Fluid		
	P _d 457.5 (1)				Critical Pressure	p.s.i.a.	p.s.i.a.
	P _d 209,306				Critical Temperature	R	R
	P _c 915	P _c 837,225			p ₁	p ₁ ²	
NO.	P _t	P ₂	P _c ² - P _t ²	P _w	P _w ²	P _c ² - P _w ²	P _s
1.			805				

$$\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} = \frac{627,919}{189,200} = 3.319$$

$$\text{Log} \frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} = \text{---}$$

$$\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n = 2.771$$

$$n \text{Log} \frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} = \text{---}$$

$$\text{Deliv.} = Q \left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n = 3,985$$

Deliv. 3,985 Mcfd
 n 0.85
 OGCC Approval 7-10-68
 (Source of n)
 (1) Assumed P_d = 50% P_c
 Calculated by:
 Ewell N. Walsh, P. E., President
 Walsh Engineering and Production Corporation

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Prod. Superintendent of the Consolidated Oil & Gas 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 therein are true, correct and complete to the best of my knowledge.
 Date October 6, 1968

Signature Leo Carr
 STATE OF ARIZONA OIL & GAS CONSERVATION COMMISSION
 Deliverability Test Report (File two copies)
 Form No. 20



OPERATOR'S CERTIFICATE OF COMPLIANCE AND AUTHORIZATION TO TRANSPORT OIL OR GAS FROM LEASE

Federal, State or Indian Lease Number, or lessor's name if fee lease Navajo Tribal 14-20-603-227	Field East Boundary Butte	Reservoir Undesignated-Upper Hermosa
Survey or Sec-Twp-Rge 11, T41N-R28E	County Apache	State Arizona
Operator Consolidated Oil & Gas, Inc.		
ADDRESS ALL CORRESPONDENCE CONCERNING THIS FORM TO:		
Street 4150 East Mexico Avenue	City Denver	State Colorado 80222
Above named operator authorizes (name of transporter) Four Corners Pipeline Co. (oil) and El Paso Natural Gas (gas)		
Transporter's street address P. O. Box 1588	City Farmington	State New Mexico
Field address Same		
Oil, condensate, gas well gas, casinghead gas		
To transport	100 % of the	oil and gas from said lease.
OTHER GATHERERS TRANSPORTING FROM THIS LEASE ARE AS FOLLOWS:		
Name of gatherer	% transported	Product transported
Indicate whether or not this certificate is for a new lease. If not a new lease, indicate whether or not it is a change of operator, change of lease name, change of gatherer, or a consolidation or subdivision of leases and give effective date of change. Change of Operator 10-12-67 - (Form 25 filed)		

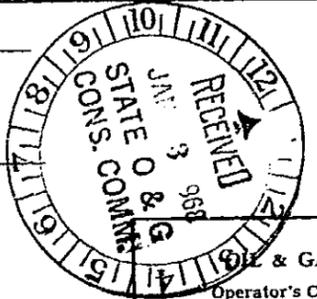
The undersigned certifies that the rules and regulations of the State of Arizona Oil & Gas Conservation Commission have been complied with in drilling and producing operations on this lease, except as noted above, and that the above transporter is authorized to transport the above specified percentage of the allowable oil or gas produced from the above described property, and that this authorization will be valid until further notice or until cancelled by the State of Arizona Oil & Gas Conservation Commission.

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Production Manager of the Consolidated Oil & Gas, 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 January 22, 1968

Signature *Wayne Rogers*

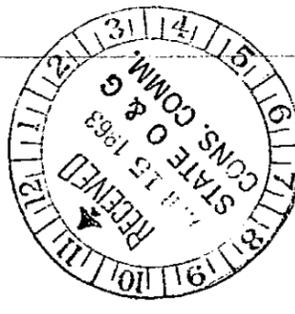
Date approved: Jan. 24, 1968
 By: *John W. Bannister*
 Permit No. 69



STATE OF ARIZONA
 OIL & GAS CONSERVATION COMMISSION
 Operator's Certificate of Compliance & Authorization to Transport Oil or Gas from Lease
 File Two Copies
 Form No. 8

RESERVOIR PRESSURE REPORT

Operator Shell Oil Company		Address Post Office Box 1200, Farmington, New Mexico		Date April 1963								
Field East Boundary Butte		County Apache		Gas Gravity 0.634								
Producing Formation Upper Hermosa		Water Gradient --		Datum Plane 900 plus sea								
Oil Gradient --		Initial Completion 104 BDO, 775 MCF/D		General Survey* (Press. Buildup)								
Special* X		Bomb Test Data		Sonic Instrument Test Data								
Well No. 23-11	Date Tested 3-28 to 4-1-63	Shut-In Tubing Pressure -	Test Depth 4534	B.H. Temp. 109	Observed Pressure 1253	Prod. Test (Bbls per Day) Gas 1,009 Oil 10	Liquid Level	Liquid Gradient	Wt. of Liquid Column	Wt. of Gas Column	Casing Pressure	Pressure At Datum 1253



* Designate type of report by "S".

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the **Div. Prod. Supt.** of the **Shell Oil** (company), and that I am authorized by said company to make this report; and 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.

APR 10 1963
 Signature **Joe E. Dozier, Jr.**
 Date

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
 Reservoir Pressure Report
 Form No. P-12
 Authorized by Order No. **4-6-59**
 Effective **April 6, 1959**

INSTRUCTIONS FOR RUNNING AND REPORTING BOTTOM HOLE PRESSURES

This report shall be mailed, in duplicate, not later than the 15th day of the month immediately following the month in which the tests were made. All bottom hole pressure tests reported herein shall be made by a person qualified by both training and experience to make such tests.

1. Oil gradient shall be in pounds per square inch per foot.
2. Water gradient shall be in pounds per square inch per foot.
3. Datum plane shall be in feet plus or minus sea level.
4. Gas gravity shall be determined from an analysis of the casinghead gas.
5. Date Tested—Enter in this column the month and day on which the bottom hole pressure test was made.
6. Shut-in Time—Shall be reported accurately to nearest hour. The well tested shall have produced its normal daily rate of production or allowable within the 24-hour period immediately preceding the time at which it was shut in. (Any deviations shall be certified to on this report.)
7. Test Depth—Shall be reported in feet as the lowest point to which the bomb was run and shall be reported in feet plus or minus sea level.
8. Bottom Hole Temperature—Shall be reported in degrees Fahrenheit as determined at test depth by either a recording or maximum reading thermometer.
9. Observed Pressure—Shall be reported as the pressure in pounds per square inch gauge observed at test depth before any necessary temperature correction has been made.
10. Production Test—The oil and water reported shall be from a representative production test immediately preceding the time at which the well was shut in.
11. Fluid Level—The fluid level reported shall be in feet above the datum plane.
12. Fluid Gradient—Shall be in pounds per square inch per foot and shall be representative of both the oil and water gradient where the well produces water as well as oil.
13. Weight of Oil Column shall be in pounds per square inch.
14. Weight of Gas Column shall be in pounds per square inch.
15. Casing Pressure—Shall be reported as the pressure in pounds per square inch gauge.
16. Datum Pressure—
 - (a) In the case of bomb measurements, this pressure shall be the observed pressure after the corrections for reservoir temperature and for the difference between test depth and datum plane have been made.
 - (b) In the case of sonic measurements, this pressure shall be determined from the weight of the fluid column plus the weight of any gas present above the fluid column plus casinghead pressure after proper corrections are made for temperature.

Calibration—The subsurface pressure instrument shall be calibrated against a dead weight tester both prior and subsequent to the dates at which all tests reported hereon are made, and in no case shall this time exceed a period of one month. The prior and subsequent calibrations shall not disagree by more than one per cent (1%). The dead-weight tester used for the calibration shall be approved by the State of Arizona Oil & Gas Conservation Commission

OIL CONSERVATION COMMISSION

BOX 307-

120 EAST CHICAGO
3500 N. Central Avenue
AZTEC, NEW MEXICO
Phoenix, Arizona

NOTICE OF GAS CONNECTION

DATE November 26, 1962

THIS IS TO NOTIFY THE OIL CONSERVATION COMMISSION THAT CONNECTION FOR THE PURCHASE OF GAS FROM

THE Shell Oil Company OPERATOR

East Boundary Butte * LEASE "A" WELL UNIT 35-42-28 S-T-R

Undesignated POOL El Paso Natural Gas Company NAME OF PURCHASER

WAS MADE ON November 16, 1962 DATE, FIRST DELIVERY November 16, 1962 DATE

* This is a central delivery point, measuring gas from #2 East Boundary Butte-Navajo Lease #7 located Sec. 3-41N-28E and #23-11 Navajo Tribal-Navajo Lease #8, located Sec. 11-41N-18E.

INITIAL POTENTIAL

El Paso Natural Gas Company
PURCHASER

A. M. Rogers
REPRESENTATIVE

Chief Dispatcher
TITLE

CC: TO OPERATOR Denver and Farmington
~~OIL CONSERVATION COMMISSION - SANTA FE~~
F. N. WOODRUFF - EL PASO
B. D. ADAMS

FILE

29 13

**OPERATOR'S CERTIFICATE OF COMPLIANCE AND AUTHORIZATION
TO TRANSPORT OIL OR GAS FROM LEASE**

Lease Navajo No. 8	Field East Boundary Butte	Reservoir Upper Hermosa
Survey or Sec-Twp-Rge See Reverse Side	County Apache	State Arizona
Operator Shell Oil Company		
ADDRESS ALL CORRESPONDENCE CONCERNING THIS FORM TO:		
Street 805 West Municipal Drive	City Farmington	State New Mexico
Above named operator authorizes (name of transporter) Four Corners Pipe Line Company		
Transporter's street address 1957 E. Del Amo Boulevard	City Compton	State California
Field address P. O. Box 1588, Farmington, New Mexico		
Oil, condensate, gas well gas, casinghead gas		
To transport	100	% of the crude oil from said lease.
OTHER GATHERERS TRANSPORTING FROM THIS LEASE ARE AS FOLLOWS:		
Name of gatherer El Paso Natural Gas Company	% transported 100	Product transported Gas
Indicate whether or not this certificate is for a new lease. If not a new lease, indicate whether or not it is a change of operator, change of lease name, change of gatherer, or a consolidation or subdivision of leases and give effective date of change. This Certificate is for change of gatherer. One well, Shell East Boundary Butte 23-11, is the only well on subject lease. Emergency authorization granted November 7, 1962, and confirmed by letter of same date from Mr. John K. Petty, Petroleum Geologist, Oil and Gas Conservation Commission.		

The undersigned certifies that the rules and regulations of the State of Arizona Oil & Gas Conservation Commission have been complied with in drilling and producing operations on this lease, except as noted above, and that the above transporter is authorized to transport the above specified percentage of the allowable oil or gas produced from the above described property, and that this authorization will be valid until further notice or until cancelled by the State of Arizona Oil & Gas Conservation Commission.

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the **Division Production Superintendent** of the **Shell Oil Company** (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 November 9, 1962

Date approved: January 2, 1963

Commissioner's Number: 2

File No. _____

Signature Joe E. Dozier, Jr.

By: [Signature]
Executive Secretary

**STATE OF ARIZONA OIL & GAS
CONSERVATION COMMISSION**

Operator's Certificate of Compliance & Authorization to
Transport oil or Gas from Lease

Form No. P-17 File three copies

Authorized by Order No. _____

Effective _____ 19__

6912 Navajo lease 14-20-603-227

Section-Township-Range
Sections 11, 12, 13, 14, T. 41 N., R. 28 E., G. & S.R.M.

... ..
... ..
... ..

... ..

... ..

... ..

**OPERATOR'S CERTIFICATE OF COMPLIANCE AND AUTHORIZATION
TO TRANSPORT OIL OR GAS FROM LEASE**

Lease Navajo No. 8	Field East Boundary Butte	Reservoir Upper Hermosa
Survey or Sec-Twp-Rge See Reverse Side	County Apache	State Arizona
Operator Shell Oil Company		
ADDRESS ALL CORRESPONDENCE CONCERNING THIS FORM TO:		
Street 805 West Municipal Drive	City Farmington	State New Mexico
Above named operator authorizes (name of transporter) El Paso Natural Gas Company		
Transporter's street address P. O. Box 1492	City El Paso	State Texas
Field address P. O. Box 990, Farmington, New Mexico		
Oil, condensate, gas well gas, casinghead gas		
To transport	100	% of the gas from said lease.
OTHER GATHERERS TRANSPORTING FROM THIS LEASE ARE AS FOLLOWS:		
Name of gatherer Four Corners Pipe Line Company	% transported 100	Product transported Crude Oil
Indicate whether or not this certificate is for a new lease. If not a new lease, indicate whether or not it is a change of operator, change of lease name, change of gatherer, or a consolidation or subdivision of leases and give effective date of change. This Certificate is for a new lease. One well, Shell East Boundary Butte 23-11, is the only well on the subject lease. Emergency authorization granted November 7, 1962, and confirmed by letter of same date from Mr. John K. Petty, Petroleum Geologist, Oil and Conservation Commission.		

The undersigned certifies that the rules and regulations of the State of Arizona Oil & Gas Conservation Commission have been complied with in drilling and producing operations on this lease, except as noted above, and that the above transporter is authorized to transport the above specified percentage of the allowable oil or gas produced from the above described property, and that this authorization will be valid until further notice or until cancelled by the State of Arizona Oil & Gas Conservation Commission.

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the **Division Production Superintendent** of the **Shell Oil Company** (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 November 9, 1962

Signature *Joe E. Dozler, Jr.*
Joe E. Dozler, Jr.

Date approved: January 2, 1963

Signature *H. H. ...*
Executive Secretary

Commissioner's Number: 3

File No. _____

**STATE OF ARIZONA OIL & GAS
CONSERVATION COMMISSION**
Operator's Certificate of Compliance & Authorization to
Transport Oil or Gas from Lease
Form No. P-17 File three copies
Authorized by Order No. _____
Effective _____ 19__

69 11

Section-Township-Range
Sections 11, 12, 13, 14, T. 41 N., R. 28 E., G. & S.R.M.

THIS IS TO CERTIFY THAT THE ABOVE SECTIONS ARE
THE SAME AS THOSE SHOWN ON THE MAP OF THE
TOWNSHIP OF ... COUNTY OF ... STATE OF ...

In testimony whereof, I have hereunto set my hand and seal at ...

...

...

...

...

...

**OPERATOR'S CERTIFICATE OF COMPLIANCE AND AUTHORIZATION
TO TRANSPORT OIL OR GAS FROM LEASE**

Lease Navajo #8	Field East Boundary Butte	Reservoir Upper Hermosa
Survey or Sec-Twp-Rge Sec. 11, T. 41 N., R. 28 E.	County Apache	State Arizona
Operator Shell Oil Company		
ADDRESS ALL CORRESPONDENCE CONCERNING THIS FORM TO:		
Street 705 West Municipal Drive	City Farmington	State New Mexico
Above named operator authorizes (name of transporter) McWood Corporation		
Transporter's street address 361 Petroleum Building	City Abilene	State Texas
Field address Box 1702, Farmington, New Mexico		
Oil, condensate, gas well gas, casinghead gas		
To transport 100	% of the crude oil	from said lease.
OTHER GATHERERS TRANSPORTING FROM THIS LEASE ARE AS FOLLOWS:		
Name of gatherer None	% transported	Product transported
Indicate whether or not this certificate is for a new lease. If not a new lease, indicate whether or not it is a change of operator, change of lease name, change of gatherer, or a consolidation or subdivision of leases and give effective date of change. This certificate is for a new lease. One well, Shell-East Boundary Butte 23-11, is the only well on subject lease. Emergency authorization granted April 30, 1959, and confirmed by letter of same date from Mr. Frederick C. Ryan, Supervisor, Oil and Gas Conservation Commission.		

The undersigned certifies that the rules and regulations of the State Land Commissioner have been complied with in drilling and producing operations on this lease, except as noted above, and that the above transporter is authorized to transport the above specified percentage of the allowable oil or gas produced from the above described property, and that this authorization will be valid until further notice or until cancelled by the State Land Commissioner.

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Division Production Manager of the Shell Oil Company (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.

May 5, 1959
Date

R. R. Robison
Signature
R. R. Robison

Date approved:
June 16, 1959

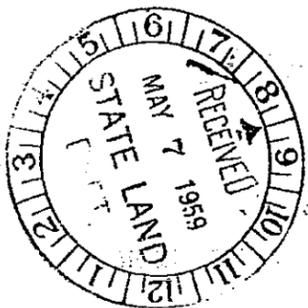
By:
Obed M. Larsen
STATE LAND COMMISSIONER

Commissioner's
Number:

File
No.

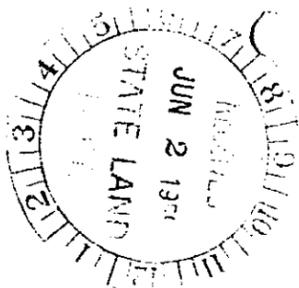
STATE OF ARIZONA STATE LAND COMMISSIONER	
Operator's Certificate of Compliance & Authorization to Transport Oil or Gas from Lease	
Form No. P-17	File three copies
Authorized by Order No. _____	4-8-59
Effective _____	April 6, 1959

69 24



7711

5626



INSTRUCTIONS

Show all data requested for each well separately, and determine the gas-oil ratio according to the following procedure:

(1) General:

- (a) Each well shall have produced its current daily allowable, if such well is capable of producing such allowable, during the 24 hour period immediately preceding the test, and the well shall be producing at the time the actual test begins.
- (b) The volume of gas used in computing the gas-oil ratio and reported as being produced during the test (except tests on gas lift or jetting wells) shall be the total volume of gas produced from the well in the test period. This total volume of gas shall include all gas withdrawn from the casing as well as that produced through the tubing.
- (c) The amount of oil produced during the test shall not be less than the well's then current daily allowable (if the well is capable of producing its allowable) and shall not exceed the daily allowable by more than ten (10) per cent, except that in the case of a well having an allowable already penalized due to its gas oil ratio, the operator may select any rate he desires between the penalized allowable and ten (10) per cent above the unpenalized allowable.

(2) Flowing Wells That are Produced Continuously:

The oil flow shall be stabilized during the 24-hour period immediately preceding the test. Adjustments in the rate of flow should be made during the first 12 hours of the stabilization period and no adjustments shall be made during the last 12 hours or during the time in which the well is being tested.

(3) Flowing Wells That are Produced Intermittently (Stop-cocked):

In computing the operating gas-oil ratio, the total volume of gas and the total barrels of oil produced during the 24 hour test period must be used regardless of the flowing time in the 24 hour period. On wells which are stop-cocked, both the closed-in casing pressure at the beginning of the test period and the closed-in casing pressure at the conclusion of the test must be shown and properly identified on the report. The closed-in casing pressure at the end of the 24 hour test period shall not exceed the closed-in casing pressure at the beginning of the test period by more than six-tenths (0.6) pounds per square inch per barrel of oil produced during the test.

(4) Gas Lift or Jetting Wells:

In submitting gas-oil ratio tests for gas lift or jetting wells, the total input and total output gas volumes shall be reported separately. These volumes shall be properly identified and determined by continuous measurement during the test. The volume of gas used in determining the operating gas-oil ratio hereunder shall be the volume remaining after the total input gas has been deducted from the total output volume.

(5) Pumping Wells:

In computing the operating gas-oil ratio, the total volume of gas and the total barrels of oil produced during the test period must be used regardless of the pumping time in the test period.

(6) Definitions:

Under Status, use the following symbols: F—Flowing, P—Pumping, GI—Gas Lift, SI—Shut in, D—Dead, TA—Temporarily Abandoned, GI—Gas Injection, WI—Water Injection.

Under Pressure, show the stabilized working pressures on the tubing, and casing, at the rate at which the well is tested. The Gas Production listed shall be the total volume of gas produced during the test in thousands of cubic feet (MCF) measured at a base pressure of 15.025 pounds per square inch, absolute, and a standard base and flowing temperature of 60° Fahrenheit; correction to be made for pressure according to Boyle's Law, and for specific gravity according to test made by the Balance Method. All well status and gas-oil ratio tests submitted to the Commissioner on this form shall be made by a person qualified by training or experience to make such tests. Methods of gas measurement used shall be those prescribed by the State Land Commissioner.

FOLD MARK

8-5/8	51	100 + 250	Displacement
5-1/2	486	64 + 53	Additives

PLUGS AND ADAPTERS

Heaving plug—Material _____ Length _____ Depth set _____
 Adapters—Material _____ Size _____

SHOOTING RECORD

Size	Shell used	Explosive used	Quantity	Date	Depth shot	Depth cleaned out

TOOLS USED

Rotary tools were used from _____ feet to 5515 feet, and from _____ feet to _____ feet
 Cable tools were used from _____ feet to _____ feet, and from _____ feet to _____ feet

DATES

_____ May 25, 1959. Put to producing _____ April 25, 1959.
 The production for the first 24 hours was 104 barrels of fluid of which 99.6 % was oil; _____ %
 emulsion, 0.6 % water; and _____ % sediment. Gravity, 24.4 ° API (approx.)
 If gas well, cu. ft. per 24 hours _____ Gallons gasoline per 1,000 cu. ft. of gas _____
 Rock pressure, lbs. per sq. in. _____

EMPLOYEES

_____ D. E. Wrayman, Driller Butledge Drilling Co.
 _____ M. Lawrence, Driller W. A. Daily

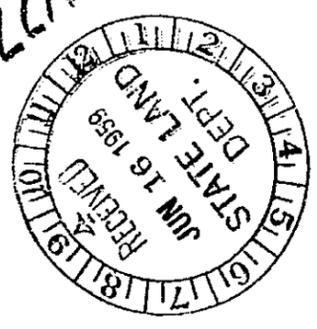
FORMATION RECORD

FROM	TO	TOTAL FEET	FORMATION
1780	1896	116	Minerney
1896	2056	160	Mudstone
2056	4036	1980	Oilier
4036	4862	826	Horace
4862	—	—	Paradox

□



10177



BOORUM & PEASE "NOISE" ©

CLASSIFICATION — Initial		Refracturing OFFPOST	
State	ARIZONA	Company	Shell Oil Company
County	APACHE		
Division	FARMINGTON		
District	DURANGO		
Basin	PARADOX EMBAYMENT	Lease	East Boundary Butte Well No. 23-11 Grid (P 32 R)
Area	East Boundary Butte	Location	1960' N., 1960' E., from SW corner
Field	East Boundary Butte		
Pool Name		Sec.	11 Twp. 11 N Rge. 28 E
Spud	3-18-59	Compl.	4-25-59
Recompl.		Abd.	TD 5513' Elev. 5125.2'
Plug	4559'	Redrid. Depths	
COMPLETION RECORD		WELL DATA	
Total Exploratory Footage		GP	

Casing 8 5/8" cmtd., 565', 200 sx.
 5 1/2" cmtd., 4882', 325 sx.
 Prod. Interval 4460-4608' Perforations
 Prod. Formation Paradox
 Initial Production IP--flowing 104 bbls oil/day, rate based on a 24-hour test, cut .45 basal sediment + 775 MCF gas gauged per day, GOR 7450-1, 20/64" choke, TP 940#, CP 1100#, 42 degree gravity

Surface Formation			Bottom Hole Formation		
Formation	Cores and Samples	Elec. Log	Formation	Cores and Samples	Elec. Log
Shinarump		1780			
Moenkopi		1896			
Cutler		2056			
Hermosa		4036			
Paradox		4862			

DRILLING PROGRESS

1959 Date	Depth	Remarks and History
3-12		Location. Spud 3-18-59.
3-19		Rigging up rotary tools.
3-25	2878	Drilling. 8 5/8" cemented at 565' with 200 sacks.
4-2	4435	Preparing to run DST #2. ✓ DST #1, 4177-4282', open 80 minutes. Shut in 1 hour. Recovered 852' heavily gas cut mud, no oil. ISIP 1348# after 30 minutes, FP 187-187#, FSIP 1301#, HP 2148-2076#. Lost circulation at 4425'.
4-9	4995	Drilling. ✓ DST #2, 4413-4435', open 1 hour. Shut in 1 hour. ISIP 1282# after 30 minutes. Faint blow, dead in 20 minutes. Recovered 333' slightly gas cut mud. FP 208-219#, FSIP 1304#, HP 2117-2152#. Core #1, 4550-4563', recovered 13': 3' limestone, very fine grained, no visible porosity, high angle fractures; 10' limestone, very fine grained, no visible porosity, fractured and shaly in part. Core #2, 4563-4585', recovered 22' limestone, sandy and shaly in part, fractured. DST #3, 4461-4511', misrun. ✓ DST #3-A, 4461-4511', open 1 hour. Shut in 1 hour. ISIP 1177# after 30 minutes. Strong blow. Gas to surface in 6 minutes, 120 MCF gas per day rate. Recovered 2850' (25 barrels) oil. TP 525-700#, FSIP 1380#, HP 2220#. ✓ DST #4, 4548-4635', open 1 hour. Shut in 1 hour. ISIP 1177# after 30 minutes. Moderate blow throughout test, no gas to surface. Recovered 500' slightly oil and gas cut mud. FP 117-223#, FSIP 1161#, HP 2108#.

BOORUM & PEASE "NOISE" ©



5 69

DR NG PROGRESS (Continued)

Date	Depth	Remarks and History
4-16	5513	<p>Preparing to run DST #6. ✓ DST #5, 4876-5040' (Desert Creek Zone) Open 1 hour. Shut in 1 hour. Recovered 1740' greenish oily sulphur water. ISIP 1530# after 30 minutes, FP 492-836#, FSIP 1522# (Nearly Stabilized), HP 2283-2121#.</p>
4-23	5513	<p>Core #3, 5467-99', recovered 30': 7' limestone, no porosity, no shows; 2' shale; 21' limestone, no porosity, few fine hair-line fractures with oil on fractures, salt water in vugs. TD. Moving off rotary tools. DST #6, 5452-5513', misrun. ✓ DST #6-A, 5450-5513', open 90 minutes. Shut in 1 hour. Recovered 1140' sulphur water with trace of oil. ISIP 1797# after 90 minutes, FP 219-698#, FSIP 1789#, HP 2610#. SP DST #7, 5050-5127', misrun. ✓ SP DST #7-A, 5062-5126', open 1 hour. Shut in 1 hour. Recovered 3120' sulphur water. ISIP 1623# after 30 minutes, FP 357-1473#, FSIP 1615#, HP 2412-2396#. ✓ SP DST #8, 4708-4800', open 1 hour. Shut in 1 hour. Gas to surface in 5 minutes, too small to measure. Recovered 10' slightly sulphurous cut water. ISIP 190# after 30 minutes, FP 17-35#, FSIP 2180#, HP 2180#. 5 1/2" cemented at 4882' with 325 sacks.</p>
4-30	5513	<p>Plug 4859'. Testing. Perforated 200 shots 4460-4510'; 112 shots 4540-96'; 10 shots 4603-08'. Set packer at 4525'. Spotted 500 gallons mud acid on perforations 4460-4510'. Acidized 4460-4510' with 2000 gallons regular acid. Pulled packer at 4525'. Reran tubing. Swabbed all perforations 4460-4608'. Swabbed 44 barrels oil in 12 hours, 44 degree gravity, no water, + 350 MCF gas = a rate of 88 barrels oil per day + 700 MCF gas per day. Kicked off and flowed 96 barrels oil + 640 MCF gas in 24 hours, 20/64" choke, cut 4% basal sediment and water, TP 970#, CP 1140#, 44 degree gravity. Flowed 104 barrels oil + 775 MCF gas, 20/64" choke, cut 4% basal sediment and water, 44 degree gravity, TP 940#, CP 1100# in a 24-hour test.</p>
5-7	5513	<p>Plug 4859'. Testing. Flowed 65 barrels oil in 18 hours, cut 6% basal sediment and water + 700 MCF gas, 18/64" choke, TP 920#, CP 1080#. Flowed 122 barrels oil in 24 hours, cut 6% load water + 879 MCF gas, 18/64" choke, TP 925#, CP 1080#, GOR 7600-1. Flowed 45 barrels oil in 12 hours, cut 2% load water + 364 MCF, GOR 8270-1, no pressures, 16/64" choke.</p>
5-14	5513	<p>Plug 4859'. Shut in for pressure buildup. COMPLETED 4-25-59. IP--flowing 104 barrels oil per day, rate based on a 24 hour test; cut 4% basal sediment + 775 MCF gas, GOR 7450-1, 20/64" choke, TP 940#, CP 1100#, 42 degree gravity. Producing through perforations opposite Paradox formation, interval 4460-4608'.</p>

cc: Area (1)
 Division (1)
 Production (1)



A 69

SHELL OIL COMPANY

WELL NO. 23-11

East Boundary Butte

DRILLING REPORT
FOR PERIOD ENDING

11

(FIELD)
Apache, Arizona
(COUNTY)

4-19-59

(SECTION OR LEASE)
T11N R28E
(TOWNSHIP OR RANGE)

DAY	DEPTH		REMARKS
	FROM	TO	
			Location: 1980'N and 1980'E of SW Corner of Section 11, T11N, R28E, G&SRBM, Apache County, Arizona. Elevations: DF 5435.7' GR 5425.2' KB 5437.2'
3-18 to 3-20	0	568	Spudded 10:00 p.m., March 18, 1959. Ran and cemented (553') 8-5/8", 28# J-55 casing at 565' with 250 sacks Dramix followed by 100 sacks cement treated with 2% calcium chloride, good return to surface. Flanged up and waited on cement. Tested casing and BOP with 700 psi for 15 minutes, O.K.
3-21 to 3-26	568	3540	Drilled 2972'. Lost cone off bit, ran magnet, recovered bearings, ran junk sub.
3-27 to 3-29	3540	4186	Drilled 646'. Lost circulation at 4186', recovered with lost circulation material.
3-30	4282	--	DST #1, 4177-4282. B and O Testers. Two 6-5/8" BT packers at 4173 and 4177', 3 outside pressure recorders at 4271', 4275' and 4279', 3/4" subsurface bean and 1" surface bean. No air or water cushion. Gas to surface in 3 minutes. 112 MCF/D rate. Strong blow immediately. Initial shut in 30 minutes, open 1 hour. 20 minutes, final shut in 60 minutes. Recovered 852' (5.6 bbls.). Heavily gas cut mud. ISIP 1245, IFP 384, FFP 188, FSIP 1224, HP 2089/1973.
3-31 to 4-1	4282	4510	Drilled 228'. Lost circulation at 4425', recovered with lost circulation material. DST #2, 4414-4435, B and O Testers. Two 6-5/8" BT packers at 4410' and 4414', 3 pressure recorders. 3/4" subsurface bean and 1" surface bean. No air or water cushion, no gas to surface. Very weak blow decreasing to almost dead in 10 minutes -- dead in 20 minutes. Initial shut in 28 minutes, open 60 minutes. Final shut in 60 minutes. Recovered 330' (1.65 bbls.). Slightly gas cut mud. ISIP 1282, IFP 193, FFP 219, FSIP 1302, HP 2116/2103.

CONDITION AT BEGINNING OF PERIOD				
HOLE			CASING SIZE	DEPTH SET
SIZE	FROM	TO		
DRILL PIPE SIZES				

RECEIVED

JUN 11 1959

U. S. GEOLOGICAL SURVEY

SHELL OIL COMPANY

WELL NO. 23-11

East Boundary Butte

DRILLING REPORT
FOR PERIOD ENDING

11

(FIELD)
Apache, Arizona
(COUNTY)

4-19-59

(SECTION OR LEASE)
T 41 N R 28 E
(TOWNSHIP OR RANGE)

DAY	DEPTH		REMARKS
	FROM	TO	
4-2 to 4-3	4510	4629	Drilled 84', Cored 35'. Core #1, 4550-4563, Core #2, 4563-4585.
4-4	4629	4635	Drilled 6'. DST #3, 4461-4511 -- misrun, dropped bar, knocked reverse sub open. DST #3A, 4461-4511 B and O testers, 3 packers at 4457, 4461 and 4511'. Four pressure recorders 4494', 4498', 4629 and 4635'. 3/4" subsurface bean, 1" surface bean. No air or water cushion. Gas to surface in 6 minutes. Strong blow throughout test, rate 100 MCF/D. Initial shut in 30 minutes, open 60 minutes, final shut in 60 minutes. Recovered 2850' (25 bbls.) oil. ISIP 1395, IFP 337, FFP 725, FSIP 1389, HP 2129/2081.
4-5	4635	4685	Drilled 50'. DST #4, B and O Testers, two 6 5/8" packers at 4544', 4548'. Two pressure recorders at 4565 and 4569', 3/4" subsurface bean and 1" surface bean, no air or water cushion. Immediate weak blow increasing to moderate in 10 minutes. No gas to surface. Initial shut in 30 minutes, open 60 minutes, final shut in 60 minutes. Recovered 500' slightly oil and gas cut mud. ISIP 1769, IFP 102, FFP 238, FSIP 1179, HP 2142/2118.
4-6 to 4-8	4685	5040	Drilled 355'. Lost circulation at 4995'+, recovered with lost circulation material. Attempted to run DST #5, tool stopped at 1732'. Ran bit, lost circulation at 1732' after cleaning out bridge, ran to bottom, recovered circulation.
4-9	5040		DST #5, 4876-5040 (Desert Creek zone) B and O Testers. Used two 6-5/8" BT packers at 4872' and 4876'. Two pressure recorders at 4907 and 4911', 3/4" subsurface bean and 1" surface bean, no air or water cushion. Immediate weak blow increasing to moderate in two minutes and continuing steadily throughout flow period. Initial shut in 30 minutes, open 60 minutes, final shut in 60 minutes. Recovered a total of 1740' including 420' (4.3 bbls.) slightly oil and water cut mud and 1320' (10.7 bbls.) slightly oil cut sulphur water with H ₂ S. ISIP 1533, IFP 359, FFP 841, FSIP 1523, HP 2286/2421.
4-10 to 4-15	5040	5515	Drilled 443'. Cored 32'. Core #3, 5467-5499'. Ran Induction Electrical Survey, Gamma Ray-Neutron and Microlog. Ran Velocity Survey, stopped at 1700'. Ran bit conditioned mud, ran velocity survey.

CONDITION AT BEGINNING OF PERIOD				
HOLE			CASING SIZE	DEPTH SET
SIZE	FROM	TO		
DRILL PIPE SIZES				

RECEIVED

JUN 11 1959

U. S. GEOLOGICAL SURVEY

SHELL OIL COMPANY

WELL NO. 23-11

East Boundary Butte

DRILLING REPORT

11

(FIELD)
Apache, Arizona
(COUNTY)

FOR PERIOD ENDING
4-19-59

RECEIVED

(SECTION OR LEASE)
T 41 N R 23 E
(TOWNSHIP OR RANCHO)

APR 11 1959

DAY	DEPTHS		REMARKS
	FROM	TO	
4-16	5515	TD	Ran DST #6, 5452-5513, B and O Testers, Two 6-5/8" BT packers at 5448' and 5452'. Two pressure bombs at 5462' and 5467'. Initial shut in 30 minutes open 1-1/2 hours, final shut in 1 hour. Recovered 10' (0.4 bbls.) mud. ISIP 1760, IFP 1780, FFP 1782, FSIP 1782, HP 2563/2575. Test a misrun -- Tester plugged with lost circulation material.
4-16	5515	TD	DST #6A, 5450-5513, B and O Testers. Two 6-5/8" packers at 5446 and 5450. Two pressure recorders at 5474 and 5479', 3/4" subsurface bean, 1" surface bean, no air cushion or water cushion, no gas to surface. Immediate faint blow, increasing to weak in 5 minutes, increasing to moderate after 20 minutes and increasing to moderate strong after 45 minutes. Initial shut in 30 minutes, open 90 minutes, final shut in 60 minutes. Recovered 1140' (6.3 bbls.) sulphurous water. ISIP 2602, IFP 143, FFP 640, FSIP 1780, HP 2587/2571. After packers were pulled loose, pin of the equalizing sub in main valve assembly broke and tester dropped back to bottom. Recovered with overshot.
4-17			DST #7, 5050-5127. Misrun, top packers did not hold. Recovered 540' (2.65 bbls.) mud HP 2407/2403. DST #7A, 5062-5126 (Akah Zone) B and O Testers. Four 6-5/8" packers at 5056, 5062, 5126 and 5130. Four pressure recorders 5066, 5091, 5134 and 5138, 3/4" subsurface bean and 1" surface bean, immediate moderate blow increasing to strong in 10 minutes and remaining strong for remainder of flow period. Initial shut in 1/2 hour, open 1 hour, final shut in 1 hour. Recovered 3120' (28.6 bbls.) sulphurous salt water. ISIP 1622, IFP 555, FFP 1610, FSIP 1615, HP 2408/2367.
4-18			DST #8, 4708-4800, Halliburton testers, four 6-3/4" packers at 4704, 4708, 4800 and 4804. Two pressure recorders at 4712 and 4716, 3/4" subsurface bean, 1" surface bean. No air or water cushion. Gas to surface in 5 minutes -- rate nil. Immediate moderate blow decreasing to weak in 15 minutes and continuing weak for remainder of test. Initial shut in 30 minutes, open 60 minutes, final shut in 60 minutes. Recovered 10' (.05 bbls.) mud. ISIP 190, IFP 17, FFP 35, FSIP 240, HP 2180. Ran continuous dipmeter.
4-19			Ran and cemented 5-1/2", 14#, J-55 casing at 4882' with 64 sacks cement, 48 sacks Diacel, 4 sacks calcium chloride and 83# flow seal. Ran temperature log. Located cement on outside of pipe at 3960'. Released rig 8:00 p.m., 4-19-59.

CONDITION AT BEGINNING OF PERIOD				
HOLE			CASING SIZE	DEPTH SET
SIZE	FROM	TO		
12-1/4"	0	568	8-5/8"	565'
7-7/8"	568	5515	5-1/2"	4882'
DRILL PIPE 4-1/2 SIZES				

Checked BOP daily

Mud summary

Wt 8.7 - 9.5 #/gal.
Vis 34 - 58 sec.
WL 7.2 - 12.4 cc.
FC 2/32"

Contractor: Rutledge Drilling Company
Drillers: D. R. Wiesman, M. Lawrence
W. R. Baily
Co. Pusher: C. L. Christiansen

C. A. Woodward

SHELL OIL COMPANY

WELL NO. 23-11

East Boundary Butte
(FIELD)
Apache, Arizona
(COUNTY)

DRILLING REPORT
FOR PERIOD ENDING
4-25-59

11
(SECTION OR LEASE)
T 41 N R 28 E
(TOWNSHIP OR RANCHO)

DAY	DEPTHS		REMARKS
	FROM	TO	
4-22	5515 4859	TD PBTB	Moved in and rigged up completion rig. Bullet perforated 2 holes/ft. 4540-4596 and 4603-4608, 4 holes/ft. 4460-4510. Ran 2-1/2" tubing to 4627', perforations 4623-27, packer at 4525'.
4-23			Filled hole with 17 bbls. water. Spotted mud acid (500 gal) over perforations and washed in four 15 minute stages. No returns while staging mud acid. With packer set at 4525' injected below packer 2000 gal. regular acid, maximum pressure 900 psi, rate 4 bbl/min. Opened packer by pass and spotted regular acid above packer, no returns when spotting acid. Closed by pass and treated 4460-4510 with 2000 gal. regular acid at 0 psi, rate 5.1 bbl/min. Ran swab to production test below packer, each swab run pulled vacuum on casing annulus. In 3 hours swabbed 106 bbls. water and acid water. Attempted to lower packer to new seat; could not get latch to release on packer.
4-24			Pulled tubing and packer. Packer showed no indications of leaking. Ran 2-7/8" tubing to 4600', perforations 4565-69. Swabbed in. Produced 12 hours, 44 bbls. oil, no water, 350 MCF gas.
4-25			INITIAL PRODUCTION (Representative) Flowing, 104 B/D gross, 104 B/D clean, cut 0.4%, 775 MCF/D gas, GOR 7450, 20/64" bean, TP 940, CP 1100. Completed 4-25-59.

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JUN 11 1959

U.S. GEOLOGICAL SURVEY
NEW MEXICO

CONDITION AT BEGINNING OF PERIOD

HOLE			CASING SIZE	DEPTH SET
SIZE	FROM	TO		
12-1/4"	0	568	8-5/8"	565'
7-7/8"	568	5515	5-1/2"	4882'
DRILL PIPE SIZES			4-1/2"	

69

C. A. Woodward

SIGNED

WEEK ENDING April 3, 1959

CORE FROM 4550 TO 4573

CORES EXAMINED BY D. C. Comer

SHELL OIL COMPANY

CORE RECORD

East Boundary

AREA OR FIELD Butte

COMPANY Shell Oil Company

LEASE AND WELL NO. 23-11

NO.	FROM	TO	RECOVERED	FORMATIONAL, STRUCTURAL AND PROBABLE PRODUCTIVITY DESCRIPTION OF CORE	SYMBOL	OBSERVED DIP	CORE INDICATIONS		
							OIL-GAS	CORE OR DITCH	
1	4550	63	13'	Limestone, tan, IvFA, silty, micaceous, few microfracs. Limestone, medium brownish gray, I II XFA, silty bioclastic (crinoid-brachiopod-bryozoan assemblage). Limestone, tan, IA, with specks of orange chert. Limestone, medium gray, very shaly, carbonaceous, micaceous, few brachiopod spines - minor fossil debris.					
	4550	53							
	53	60.5							
	60.5	62.5							
	62.5	63							
	4563	84	21.0						
2	4563	64		Limestone, tan, IvFA, microfrac, brachiopod, bryozoan, few tubular forams. Limestone, as above. Limestone, as above, slightly silty, healed hairline fractures. Limestone, light tan, IvFA; dark brown shaly partings; few microfracs, some healed with calcite. Limestone, as above, sparse crinoids, some microfracs. Limestone, as above, microfracs, some partly open. Shale, medium gray, very micaceous, slightly carbonaceous, non-calcareous. Shale, as above, dolomite. Siltstone, gray, very limy, micaceous. Siltstone, as above.					
	64	65							
	4565	66							
	4566	67							
	4567	68							
	4568	69							
	4569	70							
	4570	71							
	4571	72							
	4572	73							

Fluorescence on open fractured surface.
Faint patchy

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JUN 11 1959
GEOLOGICAL DEPT
UNIVERSITY OF MICHIGAN

SYMBOLS: C-CLAY OR SHALE (SAND 0-5%); 1-CLAY OR SHALE WITH SAND STREAKS (SAND 5-15%); 2-CLAY OR SHALE AND SAND (SAND 20-60%); 3-SAND WITH SHALE STREAKS (SAND 60-90%); S-SAND (90-100%).
NOTE: SHOW FLUID CONTENT AS IN STANDARD LEGEND.

69

PD 4-3 8-50

SHELL OIL COMPANY

East Boundary

AREA OR FIELD Butte

WEEK ENDING April 3, 1959

COMPANY Shell Oil Company

CORE FROM 4573 TO 4585

LEASE AND WELL NO. 23-11

CORE RECORD

CORES EXAMINED BY D. C. Conner

NO.	FROM	TO	RECOVERED	FORMATIONAL, STRUCTURAL AND PROBABLE PRODUCTIVITY DESCRIPTION OF CORE	SYMBOL	OBSERVED DIP	CORE INDICATIONS	
							OIL-GAS	CORE OR DITCH
2	4573	74		<u>Siltstone</u> , gray, as above.				See description
	4574	75		<u>Siltstone</u> , dark gray, slightly shaly, micaceous.				
	4575	76		<u>Siltstone</u> , gray, very limy, micaceous.				
	4576	77		<u>Siltstone</u> , as above, brown to gray, micaceous, carbonaceous.				
	4577	78		<u>Shale</u> , dark brown, very limy, slightly silty, blocky, few lime lithoclasts, few brachiopods.				
	4578	79		<u>Shale</u> , brownish gray, soft as above.				
	4579	80		<u>Shale</u> , dark brown gray, as above.				
	4580	81		<u>Shale</u> , gray mottled brown, slightly silty, soft.				
	4581	82		<u>Siltstone</u> , medium brown, very limy, shaly, micaceous, carbonaceous.				
	4582	83		<u>Siltstone</u> , as above.				
	4583	84		<u>Shale</u> , medium gray, mottled dark gray, very soft brecciated, micaceous, carbonaceous.				
	4584	85		<u>Shale</u> , dark gray, very silty, hard, micaceous, carbonaceous, lime inclusions.				

RECEIVED
JUN 11 1959
U. S. GEOLOGICAL SURVEY

SYMBOLS: C-CLAY OR SHALE (SAND 0-25%), 1-CLAY OR SHALE WITH SAND STREAKS (SAND 25-50%), 2-CLAY OR SHALE AND SAND (SAND 50-80%), 3-SAND WITH SHALE STREAKS (SAND 80-90%), S-SAND (90-100%).

DITCH SAMPLES RECEIVED

Examined by D.C. Conner 4860 to 4890
C.A. Woodward 4890 to 4950

Well 23-11
Field or Area Edwards Boundary Butte
U.S. Geological Survey Not

FROM	TO	%	SHOWS UNDERLINED	SAMPLES/LAGGED
4860	4865	100	<u>Limestone</u> , tan I/II A, dolomite in part, brecciated.	
4865	4870	100	<u>Limestone</u> , gray to tan, IVFA-FA, sparry.	
4870	4875	100	<u>Limestone</u> , IVFA, sandy in part, brecciated (frac fill crystals) brachiopod, ostracod.	
4875	4880	100	<u>Sandstone</u> , tan, very fine, very limy, pyrite.	
4880	4885	100	<u>Limestone</u> , tan, IVF-MA, sandy in part, sparry, brecciated.	
4885	4890	100	<u>Limestone</u> , pale tan, I/II VFA-B ₂ , probably slight dolomite, tubular forams, calcite, sealed fractures, trace dark brown silty pyrite shale.	
4890	4900	90	<u>Limestone</u> , white to tan, I-II VFA B trace, slight bioclastic <u>oil staining along fractures. 4% spotty pale to bright yellow white spotty fluorescence and pale green white cut fluorescence.</u>	
		10	<u>Siltstone</u> , brown dolomite, sandy.	
4900	4905	100	<u>Limestone</u> , tan, I-II VFA B trace, <u>sandy trace oil stain along fracture. Trace spotty fluorescence and cut fluorescence, as above.</u>	
4905	4910	70	<u>Sandstone</u> , white, very fine, very limy.	
		30	<u>Limestone</u> , as above, slight bioclastic.	
4910	4915	100	<u>Sandstone</u> , brown, very fine, very silty, limy, pyritic.	
4915	4920	70	<u>Sandstone</u> , tan, silty to very fine, very limy with silty streaks.	
		30	<u>Shale</u> , light gray to green, sandy, slight pyritic.	
4920	4925	50	<u>Limestone</u> , white to tan, IVFA dense, <u>trace spotty oil staining along fracture.</u>	
		30	<u>Sandstone</u> , as above.	
		20	<u>Shale</u> , as above.	
4925	4930	80	<u>Limestone</u> , III-IVF-MA, bioclastic with pseudo oolitic streak, sandy <u>trace of oil staining, trace spotty pale to bright yellow white, spotty fluorescence and pale green white cut fluorescence.</u>	
		20	<u>Shale</u> , as above.	
4930	4935	100	<u>Limestone</u> , as above with sandy streaks.	
4935	4940	100	<u>Limestone</u> , tan, I-II VFA B trace ₂ , C trace ₁ , bioclastic, <u>oil staining along fracture and around vugs, pyritic, 4% spotty fluorescence and cut fluorescence as above.</u>	
4940	4945	100	<u>Limestone</u> , tan, I-II VFA B trace ₃ , C trace ₁ , with IMA, bioclastic, <u>spotty oil staining along fractures and around vugs, 8% spotty fluorescence and cut fluorescence as above.</u>	
4945	4950	100	<u>Limestone</u> , I-II VF B trace ₃ , C trace ₁ , with IMA, <u>trace oil staining, dark brown shale partings bioclastic, 3% spotty fluorescence and cut fluorescence as above.</u>	

DITCH SAMPLES

RECEIVED

JUN 11 1959

Examined by C.A. Woodward 4950 to 5040

Well East Boundary Butte

SAMPLES LAGGED

FROM	TO	%	SHOWS UNDERLINED
4950	4955	100	<u>Limestone</u> , white to tan, III-I II VFA-MA B trace, C trace, bioclastic, trace of oil staining along fracture and around vugs, <u>4% spotty bright yellow white spotty fluorescence and pale green white cut fluorescence.</u>
4955	4960	100	<u>Limestone</u> , as above, with B trace.
4960	4965	100	<u>Limestone</u> , II III-IVFA, bioclastic, <u>trace oil staining along fractures. Spotty fluorescence and cut fluorescence, as above, brown siltstone parting.</u>
4965	4970	70 30	<u>Shale</u> , green, gray, purple, red, brown, silty. <u>Limestone</u> , white to tan, III-I/IIVFA, bioclastic.
4970	4975	100	<u>Shale</u> , as above.
4975	4980	60 40	<u>Shale</u> , as above. <u>Limestone</u> , white to tan, III-I/IIVFA, bioclastic, <u>4% spotty fluorescence and cut fluorescence as above.</u>
4980	4985	80 20	<u>Limestone</u> , white to tan, III-I/II VFA B trace ₂ , with IMA, bioclastic, oil staining along fractures and fracture surfaces, <u>6% spotty fluorescence and cut fluorescence, as above.</u> <u>Shale</u> , as above.
4985	4990	50 50	<u>Limestone</u> , white to tan, I/II VFA B trace with IMA, bioclastic, trace chert. <u>5% spotty fluorescence and cut fluorescence, as above.</u> <u>Shale</u> , as above.
4990	4995	70 30	<u>Shale</u> , as above. <u>Limestone</u> , as above.
4995	5000	70 20 10	<u>Shale</u> , as above. <u>Limestone</u> , as above, with <u>trace spotty fluorescence and cut fluorescence.</u> <u>Dolomite</u> , brown, IVFA.
5000	5010	80 20	<u>Shale</u> , as above <u>Dolomite</u> , I-III VFA, limy, brecciated. 5000 - 5040 abundant shale carings.
5010	5015	100	<u>Dolomite</u> , gray to brown, I-III VFA, limy.
5015	5020		Missing.
5020	5035	100	<u>Dolomite</u> , gray, III-IVFA.
5035	5040	100	<u>Limestone</u> , white to brown, I-II VFA B trace 2, dolomite pseudo oolitic streak <u>4% spotty fluorescence and cut fluorescence as above.</u> Circulate sample 1 hour.
5040	5050	80 20	<u>Limestone</u> , white to tan, IVFA B trace.) Very poor samples <u>Dolomite</u> , gray to brown I-III VFA B trace)
5050	5055		Missing
5055	5060	90	<u>Limestone</u> , white to brown, I-III VFA B trace ₁ , dolomite, bioclastic. <u>trace spotty pale green white to bright yellow white spotty fluorescence and pale yellow white cut fluorescence.</u>
69		10	<u>Chert.</u>

DITCH SAMPLES

JUN 11 1959

Examined by C.A. Woodward 504 to 5115

U.S. Well Log 23-11
Field or Area - East Boundary Butte

FROM	TO	%	SHOWS UNDERLINED	SAMPLES / LAGGED
5060	5065	100	<u>Limestone</u> , as above, with B trace.	
5065	5070	70	<u>Limestone</u> , as above, with <u>1% spotty fluorescence and cut fluorescence</u> .	
		20	<u>Dolomite</u> , gray, III VFA.	
		10	<u>Chert</u> .	
5070	5075	80	<u>Limestone</u> , white to gray, I-III VFA B trace 1, dolomite, few plates, pyritic, trace of oil staining around vugs, <u>4% spotty fluorescence and cut fluorescence as above</u> .	
		20	<u>Dolomite</u> , as above.	
5075	5080	100	<u>Limestone</u> , white to light gray, I-III/II VFA B trace 1, dolomite, bioclastic, trace chert, <u>4% spotty fluorescence and cut fluorescence and as above</u> .	
5080	5085	100	<u>Limestone</u> , as above, white to tan with B trace.	
5085	5090	100	<u>Limestone</u> , as above, white to tan with B trace and with <u>6% spotty fluorescence and cut fluorescence as above</u> .	
5090	5095	70	<u>Dolomite</u> , light brown, I-III VFA B ₃₋₄ C ₁₋₂ , possible fractures, <u>15% bright yellow spotty fluorescence and pale yellow cut fluorescence</u> .	
		30	<u>Limestone</u> , as above.	
5095	5100	100	<u>Dolomite</u> , tan to brown, I-III VFA B ₃₋₅ C ₁₋₂ with II VFA trace chert, <u>trace oil staining and 35% spotty fluorescence and cut fluorescence as above</u> .	
5100	5105	100	<u>Dolomite</u> , tan to brown, I-III VFA B ₃₋₄ C ₁ , with II VFA, trace chert, <u>trace oil staining, 25% spotty fluorescence and cut fluorescence</u>	
5105	5110	80	<u>Limestone</u> , brown, I-II VFA dolomite, <u>10% spotty fluorescence and cut fluorescence as above</u> .	
		20	<u>Dolomite</u> , as above.	
5110	5115	90	<u>Limestone</u> , pink white to brown, I-II VFA B trace ₁ with IMA trace oil staining around vugs and along stylolites, <u>8% spotty pale green to bright yellow white spotty fluorescence and pale yellow cut fluorescence</u> .	
		10	<u>Dolomite</u> , brown, I-III VFA B ₁₋₂ .	
5115	5120	90	<u>Limestone</u> , pink white to brown, I-II VFA B trace ₁ with IMA, trace oil staining around vugs and along stylolites, <u>8% spotty pale green white to bright yellow white spotty fluorescence and pale yellow white cut fluorescence</u> .	
		10	<u>Dolomite</u> , tan to brown, I-III VF-FA B trace 1.	
5120	5125	100	<u>Limestone</u> , gray white to brown, I-II VFA B trace, dolomite, trace chert, bioclastic streak, <u>8% spotty fluorescence and cut fluorescence trace of oil staining</u> .	

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JUN 11 1959

DITCH SAMPLES

U.S. GEOLOGICAL SURVEY

Well East Boundary Butte

Field or Area not

Examined by C.A. Woodward 5115 to 5210

FROM	TO	%	SHOWS UNDERLINED	SAMPLES/ LAGGED
5125	5130	90	<u>Limestone</u> , as above, with <u>4% spotty fluorescence and cut fluorescence</u>	
		10	<u>Dolomite</u> , gray to brown, II VF-FA.	
5130	5135	100	<u>Limestone</u> , light gray to brown, I-II VFA, dolomite, <u>trace of oil staining</u> <u>6% spotty fluorescence and cut fluorescence as above.</u>	
5135	5140	100	<u>Limestone</u> , as above, II-I VFA with <u>4% spotty fluorescence and cut</u> <u>fluorescence as above.</u>	
5140	5145	85	<u>Limestone</u> , light gray to brown, I-II VFA B trace, <u>4% spotty fluorescence</u> <u>and cut fluorescence as above.</u>	
		10	<u>Dolomite</u> , as above.	
		5	<u>Chert</u> .	
5145	5150	55	<u>Dolomite</u> , white to light gray, III-VF-FA B trace	
		40	<u>Limestone</u> , as above, II-I VFA B trace (<u>4% spotty fluorescence and cut</u> <u>fluorescence as above.</u>)	
		5	<u>Chert</u> .	
5150	5155	100	<u>Dolomite</u> , gray to brown, III-I VF-FA B trace, with limy fossiliferous streaks with <u>3% spotty fluorescence and cut fluorescence,</u>	
5155	5160	80	<u>Dolomite</u> , as above, with <u>3% spotty fluorescence and cut fluorescence,</u>	
		20	<u>Sandstone</u> , light to medium gray, silty to very fine, in part sandy siltstone, very dolomitic, pyritic, micaceous.	
5160	5185	100	<u>Sandstone</u> , as above, with interbedded <u>limestone</u> streaks.	
5185	5190	60	<u>Sandstone</u> , as above.	
		40	<u>Dolomite</u> , white to tan, III VF-FA B ₂ C ₁ with <u>trace spotty fluorescence</u> <u>and cut fluorescence as above.</u>	
5190	5195	100	<u>Dolomite</u> , white to tan, III VF-FA B trace ₂ , bioclastic, limy with <u>trace spotty fluorescence and cut fluorescence as above.</u>	
5195	5200	100	<u>Limestone</u> , mottled gray to dark brown and tan, I-II VFA dolomite, slight argillaceous, slight bioclastic, pyritic sparry, trace chert.	
5200	5205	70	<u>Limestone</u> , tan to brown, I-II VFA, bioclastic, sparry, <u>trace spotty</u> <u>fluorescence and cut fluorescence as above.</u>	
		30	<u>Shale</u> , black silty, dolomite.	
5205	5210	60	<u>Siltstone</u> , medium gray, very sandy, very dolomitic, pyritic.	
		30	<u>Limestone</u> , mottled gray to dark brown, II-IVFA with bioclastic streak.	
		10	<u>Shale</u> , as above.	

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DITCH SAMPLES

JUN 11 1959

Examined by C. A. Woodward 5210 to 5315

Well: 0123-11
Field or Area: East Boundary Butte

FROM	TO	%	SHOWS UNDERLINED	SAMPLES / LAGGED
5210	5215	60	<u>Limestone</u> , mottled gray to dark brown and white to tan, I-II VFA, dolomite, slight argillaceous, bioclastic.	
		30	<u>Siltstone</u> , as above.	
		10	<u>Shale</u> , as above.	
5215	5225	100	<u>Limestone</u> , white to tan, I-III/II VF-FA B trace, dolomite, bioclastic, dolomite in part.	
5225	5230	100	<u>Limestone</u> , as above, sparry.	
5230	5240	100	<u>Limestone</u> , as above, with IMA and with gray <u>siltstone</u> partings.	
5240	5245	85	<u>Limestone</u> , as above, gray to brown with black <u>shale</u> partings.	
		15	<u>Dolomite</u> , light gray to light brown III VF-FA silty.	
5245	5255	100	<u>Limestone</u> , pink to tan, III-I/II VF-FA, very bioclastic with brown silty dolomite partings.	
5255	5260	95	<u>Limestone</u> , as above with sandy streak and dolomite in part.	
		5	<u>Shale</u> , medium gray, dolomite.	
5260	5265	50	<u>Limestone</u> , as above with B trace, C trace and possibly D trace.	
		40	<u>Dolomite</u> , light brown to brown, III VF-FA B trace (as inter beds).	
		10	<u>Shale</u> , as above.	
5265	5270	100	<u>Dolomite</u> , as above.	
5270	5275	70	<u>Dolomite</u> , as above.	
		30	<u>Limestone</u> , as above.	
5275	5290	100	<u>Limestone</u> , white to brown, III-I/II VF-FA, dolomite, fossil hash with black to dark brown silty <u>shale</u> , partings.	
5290	5300	100	<u>Limestone</u> , gray to tan, II/I-III VF-FA, bioclastic, dolomite.	
5300	5305	100	<u>Limestone</u> , gray to tan, III-I/II VF-FA, dolomite, very bioclastic, sparry.	
5305	5310	75	<u>Dolomite</u> , gray to brown, III-II VF-FA, trace chert, dark gray <u>shale</u> partings.	
		15	<u>Shale</u> , medium to dark gray, dolomite silty.	
		10	<u>Limestone</u> , as above.	
5310	5315	65	<u>Limestone</u> , as above.	
		20	<u>Dolomite</u> , as above.	
		10	<u>Shale</u> , as above with red brown.	
		5	<u>Chert</u> , smokey.	

DITCH SAMPLES

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JUN 17 1959
23-11

Examined by C.A. Woodward to 5315 to 5380

Well 23-11
Field or Area East Boundary Butte

FROM	TO	%	SHOWS UNDERLINED	SAMPLES/LAGGED
5315	5320	75 25	<u>Limestone</u> , III-I/IVF-F, psuedo oolitic, trace chert. <u>Shale</u> , medium to dark gray, gray green and red brown, dolomite very silty in part argillaceous <u>siltstone</u> .	
5320	5325	80 20	<u>Limestone</u> , as above with streaks of fossil hash. <u>Shale</u> , medium gray to blue gray, pyritic, dolomite very silty, in part a sandy <u>siltstone</u> .	
5325	5330	90	<u>Limestone</u> , light brown, III-I/II VF-FA, foram hash (Tubular), dolomite in part, trace chert, and black <u>shale</u> partings.	
		10	<u>Shale</u> , as above.	
5330	5335	100	<u>Limestone</u> , as above, with streaks of psuedo oolites, and with dark gray pyritic <u>siltstone</u> partings.	
5335	5340	85 15	<u>Limestone</u> , as above, sparry with black pyritic <u>shale</u> partings. <u>Shale</u> , gray, dolomite in part, a gray <u>siltstone</u> .	
5340	5350	90	<u>Limestone</u> , light brown to brown, III-I/II VF-MA B trace, psuedo oolitic, with a few black oolites.	
		10	<u>Siltstone</u> , gray dolomite, pyritic.	
5350	5355	100	<u>Limestone</u> , light brown, IVF-MA, trace clear chert, <u>trace bright yellow spotty fluorescence and pale green white cut fluorescence</u> .	
5355	5360	70 30	<u>Limestone</u> , as above. <u>Dolomite</u> , tan, III FA B trace-1, <u>5% spotty fluorescence and cut fluorescence as above</u> .	
5360	5365	100	<u>Dolomite</u> , as above with B trace-2, C trace-1 and D trace. <u>5% spotty fluorescence and cut fluorescence as above</u> .	
5365	5370	70	<u>Dolomite</u> , as above with B-1-2, C trace, <u>trace oil staining, trace spotty fluorescence and cut fluorescence as above</u> .	
		30	<u>Limestone</u> , gray to medium brown, I-II VFA	
5370	5375	60	<u>Dolomite</u> , as above with some dark gray argillaceous IVFA, trace chert, <u>trace spotty fluorescence and cut fluorescence as above</u> .	
		30	<u>Limestone</u> , as above.	
		10	<u>Shale</u> , dark gray to black.	
5375	5380	80	<u>Dolomite</u> , tan to medium gray, III-I VF-FA B trace-2, sparry, <u>trace spotty fluorescence and cut fluorescence as above</u> .	
		20	<u>Limestone</u> , as above.	

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DITCH SAMPLES

Examined by C.A. Woodward 5380, 5535
to _____

Well No. 22-11
Field or Area East Boundary Butte
Not _____

FROM	TO	%	SHOWS UNDERLINED	SAMPLES LAGGED
5380	85	80	<u>Dolomite</u> , tan-medium grey, III-IVF-FABTR-2, sparry <u>4% brown yellow spotty fluorescence and pale yellow cut fluorescence.</u>	
		20	<u>Limestone</u> , grey-medium brown I-DVFA	
5385	90	95	Dolomitic brown III-IVF-FA B1-2 GTR-1 sparry, <u>25% spotty fluorescence and cut fluorescence as above.</u>	
		5	<u>Chert</u> , smokey - black.	
5390	95	50	<u>Dolomite</u> , as above. <u>4% spotty fluorescence and cut fluorescence, as above.</u>	
		40	<u>Limestone</u> , medium-dark grey with minor tan, IVFA, pyritic, argillaceous, dolomitic.	
		10	<u>Chert</u> , dark grey-black.	
5395	5400	40	<u>Dolomite</u> , as above. <u>3% spotty fluorescence and cut fluorescence, as above.</u>	
		40	<u>Limestone</u> , as above.	
		10	<u>Chert</u> , as above.	
		10	<u>Siltstone</u> , dark grey	
5400	10	95	<u>Limestone</u> , mottled medium-dark grey, I-II VFA with IMA sparry, argillaceous, and with grey siltstone partings.	
		5	<u>Chert</u> , smokey-black.	
5410	15	80	<u>Limestone</u> , mottled, medium grey-dark grey, I-II VFA, to black chert.	
		20	<u>Siltstone</u> , grey, dolomitic.	
5415	20	70	<u>Limestone</u> , as above.	
		30	<u>Shale</u> , grey, red brown, purple grey, silty <u>dolomite</u> .	
5420	25	60	<u>Shale</u> , grey, purple grey, dolomitic, silty, in part <u>siltstone</u>	
		40	<u>Limestone</u> , as above.	
5425	30	50	<u>Shale</u> , as above.	
		50	<u>Limestone</u> , as above.	
5430	35	75	<u>Limestone</u> , as above.	
		25	<u>Shale</u> , as above.	

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PD 4-3 8-50

WEEK ENDING April 13, 1959

CORE FROM 5467 TO 5497

CORES EXAMINED BY Eskelsen & Woodward

AREA OR FIELD East Boundary Butte

COMPANY Shell

LEASE AND WELL NO. 23-11

SHELL OIL COMPANY
CORE RECORD

NO.	FROM	TO	RECOVERED	FORMATIONAL, STRUCTURAL AND PROBABLE PRODUCTIVITY DESCRIPTION OF CORE	SYMBOL	OBSERVED DIP	CORE INDICATIONS	
							OIL-GAS	CORE OR DITCH
3	5467	5499	30'	(T.L.H. zone)				
	5467	68		Limestone, tan, I/III VFA Btr <u>bleeding oil on vertical fracture uniform bright yellow fluorescence on fractures.</u>				See description
	68	69		Limestone, tan, I/IVFA.				
	69	72		Limestone, tan, IVFA.				
	72	73		Limestone, as above with abundant brachiopod fragments.				
	73	76		Limestone, light grey, IVFA, very argillaceous.				
	76	77		Limestone, tan, IVFA.				
	77	78		Limestone, tan, III-IVF-MA, foram hash.				
	78	79		Limestone, tan, IVFA, with light green shale partings.				
	79	80		Limestone, tan, IVFA.				
	80	83		Limestone, tan, III-IVFA fossil hash (probably algal plates).				
	83	85		Limestone, tan, IVFAB _{tr} ; <u>bleeding oil on vertical fractures, uniform bright yellow fluorescence on fractures.</u>				
	85	86		Limestone, light grey, I-IIIVF-FAB _{tr} /I M-LA.				
	86	87		Limestone, light grey, I-IIIVF-FAB _{tr} -6 C ₁₋₂ . Numerous brachiopods, vertical fractures. <u>Bleeding oil & salt water, salt residue, uniform bright yellow spotty fluorescence.</u>				
	87	88		Limestone, as above with B ₃ & C ₁ , & spotty bright yellow spotty fluorescence.				

SYMBOLS: C-CLAY OR SHALE (SAND 0-5%); I-CLAY OR SHALE WITH SAND STREAKS (SAND 5-25%); 2-CLAY OR SHALE AND SAND (SAND 25-60%); 3-SAND WITH SHALE STREAKS (SAND 60-95%); S-SAND (90-100%).
NOTE: SHOW FLUID CONTENT AS IN STANDARD LEGEND.

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SHELL OIL COMPANY

AREA OR FIELD E. Boundary Butte

WEEK ENDING April 13, 1959

COMPANY Shell Oil Company

CORE RECORD

CORE FROM 5488 TO 5497

CORES EXAMINED BY Eskelsen & Woodward

LEASE AND WELL NO. _____

NO.	FROM	TO	RECOVERED	FORMATIONAL, STRUCTURAL AND PROBABLE PRODUCTIVITY DESCRIPTION OF CORE	SYMBOL	OBSERVED DIP	CORE INDICATIONS		Sec description
							OIL-GAS	CORE OR DITCH	
88	88	89		Limestone, as above, with B ₄₋₆ C ₁₋₂ & spotty bright yellow spotty fluorescence.					
89	89	92		Limestone, as above with B ₁₋₂ C ₁ & spotty bright yellow show of fluorescence.					
92	92	94		Limestone, as above with B ₁ C _{tr} & D _{tr} ; spotty bright yellow show of fluorescence.					
94	94	95		Limestone, as above with B ₁₋₂ C ₁₋₂ . Uniform bright yellow spotty fluorescence.					
95	95	96		Limestone, light grey, IVFA.					
96	96	97		Limestone, tan, IVFA.					
97	97	--		Shale, light green, slightly calcareous.					

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LOGGING

SYMBOLS: C-CLAY OR SHALE (SAND 0-5%), 1-CLAY OR SHALE WITH SAND STREAKS (SAND 3-25%), 2-CLAY OR SHALE AND SAND (SAND 25-60%), 3-SAND WITH SHALE STREAKS (SAND 60-90%), S-SAND (80-100%).
NOTE: SHOW FLUID CONTENT AS IN STANDARD LEGEND.

DITCH SAMPLES

Examined by C.A. Woodward 5435 to 5513

Well 23-11
Field or Area East Boundary Butte

FROM	TO	%	SHOWS UNDERLINED	SAMPLES LAGGED
5435	65	100	<u>Limestone</u> , white-tan, III-IVF-FA with minor IIVFA, trace of cherty. Bioclastic and psuedo oolitic with purple grey silty shale partings.	Not
Core #3 5467' - 5499'				
5500	13	85	<u>Limestone</u> , tan, IVFA, trace of cherty.	
		15	<u>Shale</u> , grey.	

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SHELL OIL COMPANY

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WELL NO. 23-11

East Boundary Butte

DRILLING REPORT

11

(FIELD)
Apache, Arizona
(COUNTY)

FOR PERIOD ENDING

(SECTION OR LEASE)
T41N R28E

4-19-59

(TOWNSHIP OR RANGE)

DAY	DEPTH		REMARKS
	FROM	TO	
			Location: 1980'N and 1980'E of SW Corner of Section 11, T41N, R28E, G&SRBM, Apache County, Arizona. Elevations: DF 5435.7' GR 5425.2' KB 5437.2'
3-18 to 3-20	0	568	Spudded 10:00 p.m., March 18, 1959. Ran and cemented (553') 8-5/8", 28# J-55 casing at 565' with 250 sacks Dramix followed by 100 sacks cement treated with 2% calcium chloride, good return to surface. Flanged up and waited on cement. Tested casing and BOP with 700 psi for 15 minutes, O.K.
3-21 to 3-26	568	3540	Drilled 2972'. Lost cone off bit, ran magnet, recovered bearings, ran junk sub.
3-27 to 3-29	3540	4186	Drilled 646'. Lost circulation at 4186', recovered with lost circulation material.
3-30	4282	--	DST #1, 4177-4282. B and O Testers. Two 6-5/8" BT packers at 4173 and 4177', 3 outside pressure recorders at 4271', 4275' and 4279', 3/4" subsurface bean and 1" surface bean. No air or water cushion. Gas to surface in 3 minutes. 112 MCF/D rate. Strong blow immediately. Initial shut in 30 minutes, open 1 hour 20 minutes, final shut in 60 minutes. Recovered 852' (5.6 bbls.). Heavily gas cut mud. ISIP 1245, IFP 384, FFP 188, FSIP 1224, HP 2089/1973.
3-31 to 4-1	4282	4510	Drilled 228'. Lost circulation at 4425', recovered with lost circulation material. DST #2, 4414-4435, B and O Testers. Two 6-5/8" BT packers at 4410' and 4414', 3 pressure recorders. 3/4" subsurface bean and 1" surface bean. No air or water cushion, no gas to surface. Very weak blow decreasing to almost dead in 10 minutes -- dead in 20 minutes. Initial shut in 28 minutes, open 60 minutes. Final shut in 60 minutes. Recovered 330' (1.65 bbls.). Slightly gas cut mud. ISIP 1282, IFP 193, FFP 219, FSIP 1302, HP 2116/2103.

CONDITION AT BEGINNING OF PERIOD

HOLE			CASING SIZE	DEPTH SET
SIZE	FROM	TO		
DRILL PIPE SIZES				

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SHELL OIL COMPANY

WELL NO. 23-11

East Boundary Butte
(FIELD)

DRILLING REPORT
FOR PERIOD ENDING

11
(SECTION OR LEASE)
T 41 N R 28 E
(TOWNSHIP OR RANGE)

Apache, Arizona
(COUNTY)

4-19-59

DAY	DEPTH		REMARKS
	FROM	TO	
4-2 to 4-3	4510	4629	Drilled 84', Cored 35'. Core #1, 4550-4563, Core #2, 4563-4585.
4-4	4629	4635	Drilled 6'. DST #3, 4461-4511 -- misrun, dropped bar, knocked reverse sub open. DST #3A, 4461-4511 B and O testers, 3 packers at 4457, 4461 and 4511'. Four pressure recorders 4494', 4498', 4629 and 4635'. 3/4" subsurface bean, 1" surface bean. No air or water cushion. Gas to surface in 6 minutes. Strong blow throughout test, rate 100 MCF/D. Initial shut in 30 minutes, open 60 minutes, final shut in 60 minutes. Recovered 2850' (25 bbls.) oil. ISIP 1395, IFP 337, FFP 725, FSIP 1389, HP 2129/2081.
4-5	4635	4685	Drilled 50'. DST #4, B and O Testers, two 6 5/8" packers at 4514', 4548'. Two pressure recorders at 4565 and 4569', 3/4" subsurface bean and 1" surface bean, no air or water cushion. Immediate weak blow increasing to moderate in 10 minutes. No gas to surface. Initial shut in 30 minutes, open 60 minutes, final shut in 60 minutes. Recovered 500' slightly oil and gas cut mud. ISIP 1769, IFP 102, FFP 238, FSIP 1179, HP 2142/2118.
4-6 to 4-8	4685	5040	Drilled 355'. Lost circulation at 4995'+, recovered with lost circulation material. Attempted to run DST #5, tool stopped at 1732'. Ran bit, lost circulation at 1732' after cleaning out bridge, ran to bottom, recovered circulation.
4-9	5040		DST #5, 4876-5040 (Desert Creek zone) B and O Testers. Used two 6-5/8" BT packers at 4872' and 4876'. Two pressure recorders at 4907 and 4911', 3/4" subsurface bean and 1" surface bean, no air or water cushion. Immediate weak blow increasing to moderate in two minutes and continuing steadily throughout flow period. Initial shut in 30 minutes, open 60 minutes, final shut in 60 minutes. Recovered a total of 1740' including 420' (4.3 bbls.) slightly oil and water cut mud and 1320' (10.7 bbls.) slightly oil cut sulphur water with H ₂ S. ISIP 1533, IFP 359, FFP 841, FSIP 1523, HP 2286/2421.
4-10 to 4-15	5040	5515	Drilled 443'. Cored 32'. Core #3, 5467-5499'. Ran Induction Electrical Survey, Gamma Ray-Neutron and Microlog. Ran Velocity Survey, stopped at 1700'. Ran bit conditioned mud, ran velocity survey.

CONDITION AT BEGINNING OF PERIOD				
HOLE			CASING SIZE	DEPTH SET
SIZE	FROM	TO		
DRILL PIPE SIZES				

69

C. A. Woodward

SIGNED



9385

BY 10

BY 10

SHELL OIL COMPANY

WELL NO. 23-11

East Boundary Butte

DRILLING REPORT

11

(FIELD)
Apache, Arizona
(COUNTY)

FOR PERIOD ENDING

(SECTION OR LEASE)
T 1 N R 28 E
(TOWNSHIP OR RANCH)

4-19-59

DAY	DEPTHS		REMARKS
	FROM	TO	
			Ran DST #6, 5452-5513, B and O Testers, Two 6-5/8" BT packers at 5448' and 5452'. Two pressure bombs at 5462' and 5467'. Initial shut in 30 minutes, open 1-1/2 hours, final shut in 1 hour. Recovered 10' (0.4 bbls.) mud. ISIP 1780, IFP 1780, FFP 1782, FSIP 1782, HP 2563/2575. Test a misrun -- Tester plugged with lost circulation material.
4-16	5515	TD	DST #6A, 5450-5513, B and O Testers. Two 6-5/8" packers at 5446 and 5450. Two pressure recorders at 5474 and 5479', 3/4" subsurface bean, 1" surface bean, no air cushion or water cushion, no gas to surface. Immediate faint blow, increasing to weak in 5 minutes, increasing to moderate after 20 minutes and increasing to moderate strong after 45 minutes. Initial shut in 30 minutes, open 90 minutes, final shut in 60 minutes. Recovered 1140' (6.3 bbls.) sulphurous water. ISIP 2602, IFP 143, FFP 640, FSIP 1780, HP 2587/2571. After packers were pulled loose, pin of the equalizing sub in main valve assembly broke and tester dropped back to bottom. Recovered with overshot.
4-17			DST #7, 5050-5127. Misrun, top packers did not hold. Recovered 540' (2.65 bbls.) mud HP 2407/2403. DST #7A, 5062-5126 (Akah Zone) B and O Testers. Four 6-5/8" packers at 5058, 5062, 5126 and 5130. Four pressure recorders 5086, 5091, 5134 and 5138, 3/4" subsurface bean and 1" surface bean, immediate moderate blow increasing to strong in 10 minutes and remaining strong for remainder of flow period. Initial shut in 1/2 hour, open 1 hour, final shut in 1 hour. Recovered 3120' (28.6 bbls.) sulphurous salt water. ISIP 1622, IFP 555, FFP 1610, FSIP 1615, HP 2408/2387.
4-18			DST #8, 4708-4800, Halliburton testers, four 6-3/4" packers at 4704, 4708, 4800 and 4804. Two pressure recorders at 4712 and 4716, 3/4" subsurface bean, 1" surface bean. No air or water cushion. Gas to surface in 5 minutes -- rate nil. Immediate moderate blow decreasing to weak in 15 minutes and continuing weak for remainder of test. Initial shut in 30 minutes, open 60 minutes, final shut in 60 minutes. Recovered 10' (.05 bbls.) mud. ISIP 190, IFP 17, FFP 35, FSIP 240, HP 2180.
4-19			Ran continuous dipmeter. Ran and cemented 5-1/2", 14#, J-55 casing at 4882' with 64 sacks cement, 48 sacks Diacel, 4 sacks calcium chloride and 83# flow seal. Ran temperature log. Located cement on outside of pipe at 3960'. Released rig 8:00 p.m., 4-19-59.

CONDITION AT BEGINNING OF PERIOD				
HOLE SIZE	FROM		CASINO SIZE	DEPTH SET
	TO	TO		
12-1/4"	0	568	8-5/8"	565'
7-7/8"	568	5515	5-1/2"	4882'
DRILL PIPE 4-1/2 SIZES				

Checked BOP daily

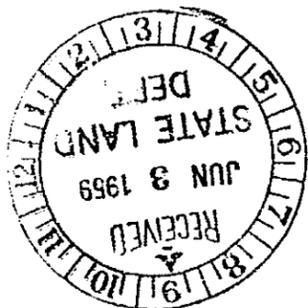
Mud summary

Wt 8.7 - 9.5 #/gal.
Vis 34 - 58 sec.
WL 7.2 - 12.4 cc.
FC 2/32"

Contractor: Rutledge Drilling Company
Drillers: D. R. Wiesman, M. Lawrence
W. R. Baily
Co. Pusher: C. L. Christiansen

C. A. Woodward

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9385

SHELL OIL COMPANY

WELL NO. 23-11

East Boundary Butte

(FIELD)
Apache, Arizona

(COUNTY)

DRILLING REPORT

FOR PERIOD ENDING

4-25-59

11

(SECTION OR LEASE)

T 41 N R 28 E

(TOWNSHIP OR RANCHO)

DAY	DEPTHS		REMARKS
	FROM	TO	
4-22	5515 4859	TD PBSD	Moved in and rigged up completion rig. Bullet perforated 2 holes/ft. 4540-4596 and 4603-4608, 4 holes/ft. 4460-4510. Ran 2-1/2" tubing to 4627', perforations 4623-27, packer at 4525'.
4-23			Filled hole with 17 bbls. water. Spotted mud acid (500 gal) over perforations and washed in four 15 minute stages. No returns while staging mud acid. With packer set at 4525' injected below packer 2000 gal. regular acid, maximum pressure 900 psi, rate 4 bbl/min. Opened packer by pass and spotted regular acid above packer, no returns when spotting acid. Closed by pass and treated 4460-4510 with 2000 gal. regular acid at 0 psi, rate 5.1 bbl/min. Ran swab to production test below packer, each swab run pulled vacuum on casing annulus. In 3 hours swabbed 106 bbls. water and acid water. Attempted to lower packer to new seat; could not get latch to release on packer.
4-24			Pulled tubing and packer. Packer showed no indications of leaking. Ran 2-7/8" tubing to 4600', perforations 4565-69. Swabbed in. Produced 12 hours, 44 bbls. oil, no water, 350 MCF gas.
4-25			INITIAL PRODUCTION (Representative) Flowing, 104 B/D gross, 104 B/D clean, cut 0.4%, 775 MCF/D gas, GOR 7450, 20/64" bean, TP 940, CP 1100. Completed 4-25-59.

CONDITION AT BEGINNING OF PERIOD

HOLE			CASING SIZE	DEPTH SET
SIZE	FROM	TO		
12-1/4"	0	568	8-5/8"	565'
7-7/8"	568	5515	5-1/2"	4882'
DRILL PIPE SIZES			4-1/2"	

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C. A. Woodward

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9385

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PD 4-3 8-50

WEEK ENDING April 3, 1959
 CORE FROM 4550 TO 4573
 CORES EXAMINED BY D. C. Conner

SHELL OIL COMPANY
CORE RECORD

East Boundary
 AREA OR FIELD Butte
 COMPANY Shell Oil Company
 LEASE AND WELL NO. 23-11

NO.	FROM	TO	RECOVERED	FORMATIONAL, STRUCTURAL AND PROBABLE PRODUCTIVITY DESCRIPTION OF CORE	SYMBOL	OBSERVED DIP	CORE INDICATIONS	
							OIL-GAS	CORE OR DITCH
1	4550	63	13'	Limestone, tan, IvFA, silty, micaceous, few microfracs. Limestone, medium brownish gray, I II XFA, silty bioclastic (crinoid-brachiopod-bryozoan assemblage). Limestone, tan, IA, with specks of orange chert. Limestone, medium gray, very shaly, carbonaceous, micaceous, few brachiopod spines - minor fossil debris.				
	4550	53						
	53	60.5						
	60.5	62.5						
	62.5	63						
2	4563	84	21'	Limestone, tan, IvFA, microfrac, brachiopod, bryozoan, few tubular forams. Limestone, as above. Limestone, as above, slightly silty, healed hairline fractures. Limestone, light tan, IvFA; dark brown shaly partings; few microfracs, some healed with calcite. Limestone, as above, sparse crinoids, some microfracs. Limestone, as above, microfracs, some partly open. Shale, medium gray, very micaceous, slightly carbonaceous, non-calcareous. Shale, as above, dolomite. Siltstone, gray, very limy, micaceous. Siltstone, as above.				
	4563	64						
	64	65						
	4565	66						
	4566	67						
	4567	68						
	4568	69						
	4569	70						
	4570	71						
	4571	72						
	4572	73						

Fluorescence on open fractured surface.
 Faint patchy

SYMBOLS: C-CLAY OR SHALE (SAND 0-5%); 1-CLAY OR SHALE WITH SAND STREAKS (SAND 5-15%); 2-CLAY OR SHALE AND SAND (SAND 25-60%); 3-SAND WITH SHALE STREAKS (SAND 60-80%); S-SAND (90-100%).
 NOTE: SHOW FLUID CONTENT AS IN STANDARD LEGEND.



9385



SHELL OIL COMPANY

WEEK ENDING April 3, 1959

CORE FROM 4573 TO 4585

East Boundary

Butte

AREA OR FIELD

COMPANY Shell Oil Company

LEASE AND WELL NO. 23-11

CORE RECORD

CORES EXAMINED BY D. C. Conner

NO.	FROM	TO	RECOVERED	FORMATIONAL, STRUCTURAL AND PROBABLE PRODUCTIVITY DESCRIPTION OF CORE	SYMBOL	OBSERVED DIP	CORE INDICATIONS	
							OIL-GAS	CORE OR DITCH
2	4573	74		Siltstone, gray, as above.				See description
	4574	75		Siltstone, dark gray, slightly shaly, micaceous.				
	4575	76		Siltstone, gray, very limy, micaceous.				
	4576	77		Siltstone, as above, brown to gray, micaceous, carbonaceous.				
	4577	78		Shale, dark brown, very limy, slightly silty, blocky, few lime lithoclasts, few brachiopods.				
	4578	79		Shale, brownish gray, soft as above.				
	4579	80		Shale, dark brown gray, as above.				
	4580	81		Shale, gray mottled brown, slightly silty, soft.				
	4581	82		Siltstone, medium brown, very limy, shaly, micaceous, carbonaceous.				
	4582	83		Siltstone, as above.				
	4583	84		Shale, medium gray, mottled dark gray, very soft brecciated, micaceous, carbonaceous.				
	4584	85		Shale, dark gray, very silty, hard, micaceous, carbonaceous, lime inclusions.				

STANDARD CLAY OR SHALE (SAND 0-5%). 1-CLAY OR SHALE WITH SAND STREAKS (SAND 5-15%). 2-CLAY OR SHALE AND SAND (SAND 25-60%). 3-SAND WITH SHALE STREAKS (SAND 60-90%). 5-SAND (90-100%).



9385

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FD 4-18 8-50

SHELL OIL COMPANY

AREA OR FIELD East Boundary Butte

WEEK ENDING April 13, 1959

CORE FROM 5467 TO 5497

COMPANY Shell

CORE RECORD

LEASE AND WELL NO. 23-11

CORES EXAMINED BY Eskelsen & Woodward

NO.	FROM	TO	RECOVERED	FORMATIONAL, STRUCTURAL AND PROBABLE PRODUCTIVITY DESCRIPTION OF CORE	SYMBOL	OBSERVED DIP	CORE INDICATIONS	
							OIL-GAS	CORE OR DITCH
3	5467	5499	301	(T.L.H. zone)				
	5467	68		Limestone, tan, I/III VFA B _{tr} bleeding oil on vertical fracture uniform bright yellow fluorescence on fractures.				See description
	68	69		Limestone, tan, I/II VFA.				
	69	72		Limestone, tan, IVFA.				
	72	73		Limestone, as above with abundant brachiopod fragments.				
	73	76		Limestone, light grey, IVFA, very argillaceous.				
	76	77		Limestone, tan, IVFA.				
	77	78		Limestone, tan, III-IVF-MA, foram hash.				
	78	79		Limestone, tan, IVFA, with light green shale partings.				
	79	80		Limestone, tan, IVFA.				
	80	83		Limestone, tan, III-IVFA fossil hash (probably algal plates).				
	83	85		Limestone, tan, IVFAB _{tr} ; bleeding oil on vertical fractures, uniform bright yellow fluorescence on fractures.				
	85	86		Limestone, light grey, I-IIIVF-FAB _{tr} /I M-IA.				
	86	87		Limestone, light grey, I-IIIVF-FAB _{tr} -6 C ₁₋₂ . Numerous brachiopods, vertical fractures. Bleeding oil & salt water, salt residue, uniform bright yellow spotty fluorescence.				
	87	88		Limestone, as above with B ₃ & C ₁ , & spotty bright yellow spotty fluorescence.				

SYMBOLS: C-CLAY OR SHALE (SAND 0-5%). 1-CLAY OR SHALE WITH SAND STREAKS (SAND 5-25%). 2-CLAY OR SHALE AND SAND (SAND 25-60%). 3-SAND WITH SHALE STREAKS (SAND 60-90%). S-SAND (80-100%).
NOTE: SHOW FLUID CONTENT AS IN STANDARD LEGEND.



9385

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PD 4-3 8-50

SHELL OIL COMPANY

AREA OR FIELD E. Boundary Butte

WEEK ENDING April 13, 1959

COMPANY Shell Oil Company

CORE RECORD

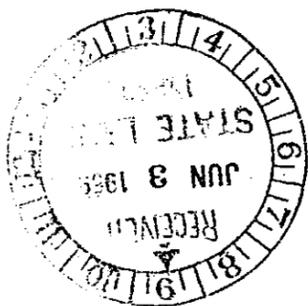
CORE FROM 5188 TO 5197

LEASE AND WELL NO. _____

CORES EXAMINED BY Eskelesen & Woodward

NO.	FROM	TO	RECOVERED	FORMATIONAL, STRUCTURAL AND PROBABLE PRODUCTIVITY DESCRIPTION OF CORE	SYMBOL	OBSERVED DIP	CORE INDICATIONS	
							OIL-GAS	CORE OR DITCH
88	88	89		<u>Limestone, as above, with B₄₋₆ C₁₋₂ & spotty bright yellow spotty fluorescence.</u>				See description
89	89	92		<u>Limestone, as above with B₁₋₂ G₁ & spotty bright yellow show of fluorescence.</u>				
92	92	94		<u>Limestone, as above with B₁ C_{tr} & D_{tr}, spotty bright yellow show of fluorescence.</u>				
94	94	95		<u>Limestone, as above with B₁₋₂ C₁₋₂. Uniform bright yellow spotty fluorescence.</u>				
95	95	96		<u>Limestone, light grey, IVFA.</u>				
96	96	97		<u>Limestone, tan, IVFA.</u>				
97	97	--		<u>Shale, light green, slightly calcareous.</u>				

SYMBOLS: C-CLAY OR SHALE (SAND 0-5%). I-CLAY OR SHALE WITH SAND STREAKS (SAND 5-25%). 2-CLAY OR SHALE AND SAND (SAND 25-80%). 3-SAND WITH SHALE STREAKS (SAND 80-95%). S-SAND (90-100%).
 NOTE: SHOW FLUID CONTENT AS IN STANDARD LEGEND.



9385



DITCH SAMPLES

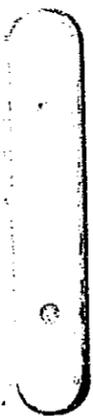
Examined by D.C. Conner 4860 to 4890
C.A. Woodward 4890 to 4950

Well 23-11
 Field or Area East Boundary Butte
 Not

FROM	TO	%	SHOWS UNDERLINED	SAMPLES/ LAGGED
4860	4865	100	<u>Limestone</u> , tan I/II A, dolomite in part, brecciated.	
4865	4870	100	<u>Limestone</u> , gray to tan, IVFA-FA, sparry.	
4870	4875	100	<u>Limestone</u> , IVFA, sandy in part, brecciated (frac fill crystals) brachiopod, ostracod.	
4875	4880	100	<u>Sandstone</u> , tan, very fine, very limy, pyrite.	
4880	4885	100	<u>Limestone</u> , tan, IVF-MA, sandy in part, sparry, brecciated.	
4885	4890	100	<u>Limestone</u> , pale tan, I/II VFA-B ₂ , probably slight dolomite, tubular forams, calcite, sealed fractures, trace dark brown silty pyrite <u>shale</u> .	
4890	4900	90	<u>Limestone</u> , white to tan, I-II VFA B trace, slight bioclastic <u>oil staining along fractures. 4% spotty pale to bright yellow white spotty fluorescence and pale green white cut fluorescence.</u>	
		10	<u>Siltstone</u> , brown dolomite, sandy.	
4900	4905	100	<u>Limestone</u> , tan, I-II VFA B trace, <u>sandy trace oil stain along fracture. Trace spotty fluorescence and cut fluorescence, as above.</u>	
4905	4910	70	<u>Sandstone</u> , white, very fine, very limy.	
		30	<u>Limestone</u> , as above, slight bioclastic.	
4910	4915	100	<u>Sandstone</u> , brown, very fine, very silty, limy, pyritic.	
4915	4920	70	<u>Sandstone</u> , tan, silty to very fine, very limy with silty streaks.	
		30	<u>Shale</u> , light gray to green, sandy, slight pyritic.	
4920	4925	50	<u>Limestone</u> , white to tan, IVFA dense, <u>trace spotty oil staining along fracture.</u>	
		30	<u>Sandstone</u> , as above.	
		20	<u>Shale</u> , as above.	
4925	4930	80	<u>Limestone</u> , III-IVF-MA, bioclastic with pseudo oolitic streak, sandy <u>trace of oil staining, trace spotty pale to bright yellow white, spotty fluorescence and pale green white cut fluorescence</u>	
		20	<u>Shale</u> , as above.	
4930	4935	100	<u>Limestone</u> , as above with sandy streaks.	
4935	4940	100	<u>Limestone</u> , tan, I-II VFA B trace ₂ , C trace ₁ , bioclastic, <u>oil staining along fracture and around vugs, pyritic, 4% spotty fluorescence and cut fluorescence as above.</u>	
4940	4945	100	<u>Limestone</u> , tan, I-II VFA B trace ₃ , C trace ₁ , with IMA, bioclastic, <u>spotty oil staining along fractures and around vugs, 8% spotty fluorescence and cut fluorescence as above.</u>	
4945	4950	100	<u>Limestone</u> , I-II VF B trace _C , with IMA, <u>trace oil staining, dark brown shale partings bioclastic, 3% spotty fluorescence and cut fluorescence as above.</u>	



9385



DITCH SAMPLES

Examined by C.A. Woodward 4950 to 5040

Well 23-11
Field or Area East Boundary Butte
Not

FROM	TO	%	SHOWS UNDERLINED	SAMPLES/LAGGED
4950	4955	100	<u>Limestone</u> , white to tan, III-I II VFA-MA B trace ₁ C trace, bioclastic, trace of oil staining along fracture and around vugs, <u>4% spotty bright yellow white spotty fluorescence and pale green white cut fluorescence.</u>	
4955	4960	100	<u>Limestone</u> , as above, with B trace.	
4960	4965	100	<u>Limestone</u> , II III-IVFA, bioclastic, <u>trace oil staining along fractures. Spotty fluorescence and cut fluorescence, as above, brown siltstone parting.</u>	
4965	4970	70	<u>Shale</u> , green, gray, purple, red, brown, silty.	
		30	<u>Limestone</u> , white to tan, III-I/IVFA, bioclastic.	
4970	4975	100	<u>Shale</u> , as above.	
4975	4980	60	<u>Shale</u> , as above.	
		40	<u>Limestone</u> , white to tan, III-I/IVFA, bioclastic, <u>4% spotty fluorescence and cut fluorescence as above.</u>	
4980	4985	80	<u>Limestone</u> , white to tan, III-I/II VFA B trace ₂ , with IMA, bioclastic, oil staining along fractures and fracture surfaces, <u>6% spotty fluorescence and cut fluorescence, as above.</u>	
		20	<u>Shale</u> , as above.	
4985	4990	50	<u>Limestone</u> , white to tan, I/II VFA B trace with IMA, bioclastic, trace chert. <u>5% spotty fluorescence and cut fluorescence, as above.</u>	
		50	<u>Shale</u> , as above.	
4990	4995	70	<u>Shale</u> , as above.	
		30	<u>Limestone</u> , as above.	
4995	5000	70	<u>Shale</u> , as above.	
		20	<u>Limestone</u> , as above, with <u>trace spotty fluorescence and cut fluorescence.</u>	
		10	<u>Dolomite</u> , brown, IVFA.	
5000	5010	80	<u>Shale</u> , as above	5000 - 5040 abundant shale carings.
		20	<u>Dolomite</u> , I-III VFA, limy, brecciated.	
5010	5015	100	<u>Dolomite</u> , gray to brown, I-III VFA, limy.	
5015	5020		Missing.	
5020	5035	100	<u>Dolomite</u> , gray, III-IVFA.	
5035	5040	100	<u>Limestone</u> , white to brown, I-II VFA B trace 2, dolomite psuedo oolitic streak. <u>4% spotty fluorescence and cut fluorescence as above.</u>	
			Circulate sample 1 hour.	
5040	5050	80	<u>Limestone</u> , white to tan, IVFA B trace.) Very poor samples
		20	<u>Dolomite</u> , gray to brown I-III VFA B trace)	
5050	5055		Missing	
5055	5060	90	<u>Limestone</u> , white to brown, I-III VFA B trace ₁ , dolomite, bioclastic. <u>trace spotty pale green white to bright yellow white spotty fluorescence and pale yellow white cut fluorescence.</u>	
		10	<u>Chert</u> .	

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DITCH SAMPLES

Examined by C.A. Woodward 5046 5115
to _____

Well 23-11
Field or Area East Boundary Butte

FROM	TO	%	SHOWS UNDERLINED	SAMPLES / LAGGED
5060	5065	100	<u>Limestone</u> , as above, with B trace.	
5065	5070	70	<u>Limestone</u> , as above, with <u>1% spotty fluorescence and cut fluorescence.</u>	
		20	<u>Dolomite</u> , gray, III VFA.	
		10	<u>Chert</u> .	
5070	5075	80	<u>Limestone</u> , white to gray, I-III VFA B trace 1, dolomite, few plates, pyritic, trace of oil staining around vugs, <u>4% spotty fluorescence and cut fluorescence as above.</u>	
		20	<u>Dolomite</u> , as above.	
5075	5080	100	<u>Limestone</u> , white to light gray, I-III/II VFA B trace 1, dolomite, bioclastic, trace chert, <u>4% spotty fluorescence and cut fluorescence and as above.</u>	
5080	5085	100	<u>Limestone</u> , as above, white to tan with B trace.	
5085	5090	100	<u>Limestone</u> , as above, white to tan with B trace and with <u>6% spotty fluorescence and cut fluorescence as above.</u>	
5090	5095	70	<u>Dolomite</u> , light brown, I-III VFA B ₃₋₄ C ₁₋₂ , possible fractures, <u>15% bright yellow spotty fluorescence and pale yellow cut fluorescence.</u>	
		30	<u>Limestone</u> , as above.	
5095	5100	100	<u>Dolomite</u> , tan to brown, I-III VFA B ₃₋₅ C ₁₋₂ with II VFA trace chert, trace oil staining and <u>35% spotty fluorescence and cut fluorescence as above.</u>	
5100	5105	100	<u>Dolomite</u> , tan to brown, I-III VFA B ₃₋₄ C ₁ , with II VFA, trace chert, trace oil staining, <u>25% spotty fluorescence and cut fluorescence</u>	
5105	5110	80	<u>Limestone</u> , brown, I-II VFA dolomite, <u>10% spotty fluorescence and cut fluorescence as above.</u>	
		20	<u>Dolomite</u> , as above.	
5110	5115	90	<u>Limestone</u> , pink white to brown, I-II VFA B trace ₁ with IMA trace oil staining around vugs and along stylolites, <u>8% spotty pale green to bright yellow white spotty fluorescence and pale yellow cut fluorescence.</u>	
		10	<u>Dolomite</u> , brown, I-III VFA B ₁₋₂ .	
5115	5120	90	<u>Limestone</u> , pink white to brown, I-II VFA B trace ₁ with IMA, trace oil staining around vugs and along stylolites, <u>8% spotty pale green white to bright yellow white spotty fluorescence and pale yellow white cut fluorescence.</u>	
		10	<u>Dolomite</u> , tan to brown, I-III VF-FA B trace 1.	
5120	5125	100	<u>Limestone</u> , gray white to brown, I-II VFA B trace, dolomite, trace chert, bioclastic streak, <u>8% spotty fluorescence and cut fluorescence trace of oil staining.</u>	



4385

DITCH SAMPLES

Examined by C.A. Woodward 5115 to 5210

Well 23-11
Field or Area East Boundary Butte

not

SAMPLES/LAGGED

FROM	TO	%	SHOWS UNDERLINED	SAMPLES/LAGGED
5125	5130	90	<u>Limestone</u> , as above, with <u>4% spotty fluorescence and cut fluorescence</u>	
		10	<u>Dolomite</u> , gray to brown, II VF-FA.	
5130	5135	100	<u>Limestone</u> , light gray to brown, I-II VFA, dolomite, <u>trace of oil staining</u> <u>6% spotty fluorescence and cut fluorescence as above.</u>	
5135	5140	100	<u>Limestone</u> , as above, II-I VFA with <u>4% spotty fluorescence and cut fluorescence as above.</u>	
5140	5145	85	<u>Limestone</u> , light gray to brown, I-II VFA B trace, <u>4% spotty fluorescence and cut fluorescence as above.</u>	
		10	<u>Dolomite</u> , as above.	
		5	<u>Chert</u> .	
5145	5150	55	<u>Dolomite</u> , white to light gray, III-VF-FA B trace	
		40	<u>Limestone</u> , as above, II-I VFA B trace (<u>4% spotty fluorescence and cut fluorescence as above.</u>)	
		5	<u>Chert</u> .	
5150	5155	100	<u>Dolomite</u> , gray to brown, III-I VF-FA B trace, with limy fossiliferous streaks with <u>3% spotty fluorescence and cut fluorescence,</u>	
5155	5160	80	<u>Dolomite</u> , as above, with <u>3% spotty fluorescence and cut fluorescence,</u>	
		20	<u>Sandstone</u> , light to medium gray, silty to very fine, in part sandy siltstone, very dolomitic, pyritic, micaceous.	
5160	5185	100	<u>Sandstone</u> , as above, with interbedded <u>limestone</u> streaks.	
5185	5190	60	<u>Sandstone</u> , as above.	
		40	<u>Dolomite</u> , white to tan, III VF-FA B ₂ C ₁ with <u>trace spotty fluorescence and cut fluorescence as above.</u>	
5190	5195	100	<u>Dolomite</u> , white to tan, III VF-FA B trace, bioclastic, limy with <u>trace spotty fluorescence and cut fluorescence as above.</u>	
5195	5200	100	<u>Limestone</u> , mottled gray to dark brown and tan, I-II VFA dolomite, slight argillaceous, slight bioclastic, pyritic sparry, trace chert.	
5200	5205	70	<u>Limestone</u> , tan to brown, I-II VFA, bioclastic, sparry, <u>trace spotty fluorescence and cut fluorescence as above.</u>	
		30	<u>Shale</u> , black silty, dolomite.	
5205	5210	60	<u>Siltstone</u> , medium gray, very sandy, very dolomitic, pyritic.	
		30	<u>Limestone</u> , mottled gray to dark brown, II-IVFA with bioclastic streak.	
		10	<u>Shale</u> , as above.	



9385

DITCH SAMPLES

Examined by C. A. Woodward 5210 to 5315

Well 23-11
Field or Area East Boundary Butte

FROM	TO	%	SHOWS UNDERLINED	SAMPLES / LAGGED
5210	5215	60	<u>Limestone</u> , mottled gray to dark brown and white to tan, I-II VFA, dolomite, slight argillaceous, bioclastic.	
		30	<u>Siltstone</u> , as above.	
		10	<u>Shale</u> , as above.	
5215	5225	100	<u>Limestone</u> , white to tan, I-III/II VF-FA B trace, dolomite, bioclastic, dolomite in part.	
5225	5230	100	<u>Limestone</u> , as above, sparry.	
5230	5240	100	<u>Limestone</u> , as above, with IMA and with gray <u>siltstone</u> partings.	
5240	5245	85	<u>Limestone</u> , as above, gray to brown with black <u>shale</u> partings.	
		15	<u>Dolomite</u> , light gray to light brown III VF-FA silty.	
5245	5255	100	<u>Limestone</u> , pink to tan, III-I/II VF-FA, very bioclastic with brown silty dolomite partings.	
5255	5260	95	<u>Limestone</u> , as above with sandy streak and dolomite in part.	
		5	<u>Shale</u> , medium gray, dolomite.	
5260	5265	50	<u>Limestone</u> , as above with B trace, C trace and possibly D trace.	
		40	<u>Dolomite</u> , light brown to brown, III VF-FA B trace (as inter beds).	
		10	<u>Shale</u> , as above.	
5265	5270	100	<u>Dolomite</u> , as above.	
5270	5275	70	<u>Dolomite</u> , as above.	
		30	<u>Limestone</u> , as above.	
5275	5290	100	<u>Limestone</u> , white to brown, III-I/II VF-FA, dolomite, fossil hash with black to dark brown silty <u>shale</u> , partings.	
5290	5300	100	<u>Limestone</u> , gray to tan, II/I-III VF-FA, bioclastic, dolomite.	
5300	5305	100	<u>Limestone</u> , gray to tan, III-I/II VF-FA, dolomite, very bioclastic, sparry.	
5305	5310	75	<u>Dolomite</u> , gray to brown, III-II VF-FA, trace chert, dark gray <u>shale</u> partings.	
		15	<u>Shale</u> , medium to dark gray, dolomite silty.	
		10	<u>Limestone</u> , as above.	
5310	5315	65	<u>Limestone</u> , as above.	
		20	<u>Dolomite</u> , as above.	
		10	<u>Shale</u> , as above with red brown.	
		5	<u>Chert</u> , smokey.	



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DITCH SAMPLES

Examined by C.A. Woodward to 5315 to 5380
to _____

Well 23-11
Field or Area East Boundary Butte
Not _____

FROM	TO	%	SHOWS UNDERLINED	SAMPLES/LAGGED
5315	5320	75	<u>Limestone</u> , III-I/IVF-F, psuedo oolitic, trace chert.	
		25	<u>Shale</u> , medium to dark gray, gray green and red brown, dolomite very silty in part argillaceous <u>siltstone</u> .	
5320	5325	80	<u>Limestone</u> , as above with streaks of fossil hash.	
		20	<u>Shale</u> , medium gray to blue gray, pyritic, dolomite very silty, in part a sandy <u>siltstone</u> .	
5325	5330	90	<u>Limestone</u> , light brown, III-I/II VF-FA, foram hash (Tubular), dolomite in part, trace chert, and black <u>shale</u> partings.	
		10	<u>Shale</u> , as above.	
5330	5335	100	<u>Limestone</u> , as above, with streaks of psuedo oolites, and with dark gray pyritic <u>siltstone</u> partings.	
5335	5340	85	<u>Limestone</u> , as above, sparry with black pyritic <u>shale</u> partings.	
		15	<u>Shale</u> , gray, dolomite in part, a gray <u>siltstone</u> .	
5340	5350	90	<u>Limestone</u> , light brown to brown, III-I/II VF-MA B trace, psuedo oolitic, with a few black oolites.	
		10	<u>Siltstone</u> , gray dolomite, pyritic.	
5350	5355	100	<u>Limestone</u> , light brown, IVF-MA, trace clear chert, <u>trace bright yellow spotty flourescence and pale green white cut flourescence</u> .	
5355	5360	70	<u>Limestone</u> , as above.	
		30	<u>Dolomite</u> , tan, III FA B trace-1, <u>5% spotty flourescence and cut flourescence as above</u> .	
5360	5365	100	<u>Dolomite</u> , as above with B trace-2, C trace-1 and D trace. <u>5% spotty flourescence and cut flourescence as above</u> .	
5365	5370	70	<u>Dolomite</u> , as above with B-1-2, C trace, <u>trace oil staining, trace spotty flourescence and cut flourescence as above</u> .	
		30	<u>Limestone</u> , gray to medium brown, I-II VFA	
5370	5375	60	<u>Dolomite</u> , as above with some dark gray argillaceous IVFA, trace chert, <u>trace spotty flourescence and cut flourescence as above</u> .	
		30	<u>Limestone</u> , as above.	
		10	<u>Shale</u> , dark gray to black.	
5375	5380	80	<u>Dolomite</u> , tan to medium gray, III-I VF-FA B trace-2, sparry, <u>trace spotty flourescence and cut flourescence as above</u> .	
		20	<u>Limestone</u> , as above.	



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DITCH SAMPLES

Examined by C.A. Woodward 5380, 5535
to _____

Well 23-11
Field or Area East Boundary Butte
Not _____

FROM	TO	%	SHOWS UNDERLINED	SAMPLES LAGGED
5380	85	80	<u>Dolomite</u> , tan-medium gray, III-IVF-FABTR-2, sparry <u>4% brown yellow spotty fluorescence and pale yellow cut fluorescence.</u>	
		20	<u>Limestone</u> , grey-medium brown I-DVFA	
5385	90	95	Dolomitic brown III-IVF-FA B1-2 CTR-1 sparry, <u>25% spotty fluorescence and cut fluorescence as above.</u>	
		5	<u>Chert</u> , smokey - black.	
5390	95	50	<u>Dolomite</u> , as above. <u>4% spotty fluorescence and cut fluorescence, as above.</u>	
		40	<u>Limestone</u> , medium-dark grey with minor tan, IVFA, pyritic, argillaceous, dolomitic.	
		10	<u>Chert</u> , dark grey-black.	
5395	5400	40	<u>Dolomite</u> , as above. <u>3% spotty fluorescence and cut fluorescence, as above.</u>	
		40	<u>Limestone</u> , as above.	
		10	<u>Chert</u> , as above.	
		10	<u>Siltstone</u> , dark grey	
5400	10	95	<u>Limestone</u> , mottled medium-dark grey, I-II VFA with IMA sparry, argillaceous, and with grey siltstone partings.	
		5	<u>Chert</u> , smokey-black.	
5410	15	80	<u>Limestone</u> , mottled, medium grey-dark grey, I-II VFA, to black chert.	
		20	<u>Siltstone</u> , grey, dolomitic.	
5415	20	70	<u>Limestone</u> , as above.	
		30	<u>Shale</u> , grey, red brown, purple grey, silty <u>dolomite</u> .	
5420	25	60	<u>Shale</u> , grey, purple grey, dolomitic, silty, in part <u>siltstone</u>	
		40	<u>Limestone</u> , as above.	
5425	30	50	<u>Shale</u> , as above.	
		50	<u>Limestone</u> , as above.	
5430	35	75	<u>Limestone</u> , as above.	
		25	<u>Shale</u> , as above.	

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DITCH SAMPLES

Examined by C.A. Woodward 5435 to 5513

Well 23-11
Field or Area East Boundary Butte

Not

FROM	TO	%	SHOWS UNDERLINED	SAMPLES LAGGED
5435	65	100	<u>Limestone</u> , white-tan, III-IVF-FA with minor IIVFA, trace of cherty. Bioclastic and psuedo oolitic with purple grey silty shale partings.	
Core #3 5467' - 5499'				
5500	13	85	<u>Limestone</u> , tan, IVFA, trace of cherty.	
		15	<u>Shale</u> , grey.	



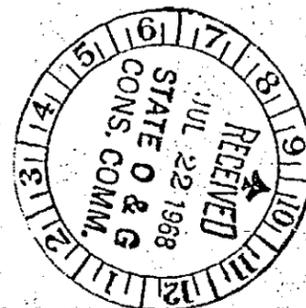
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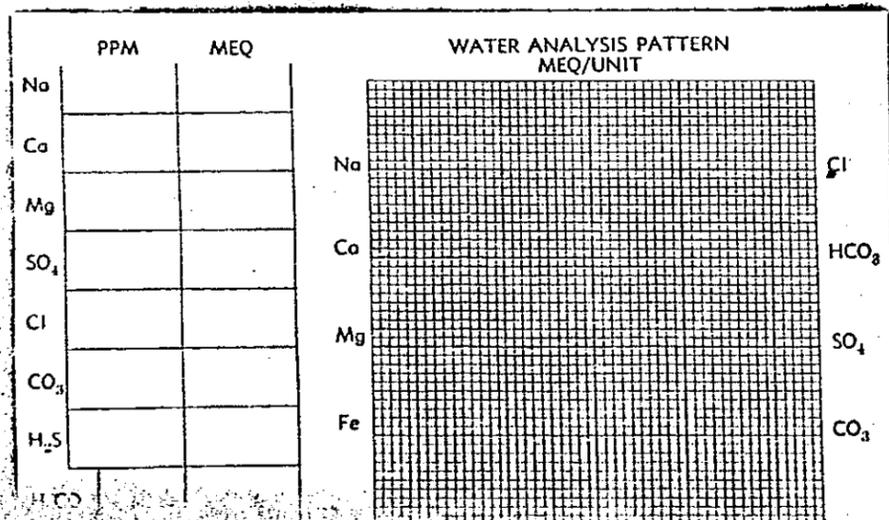
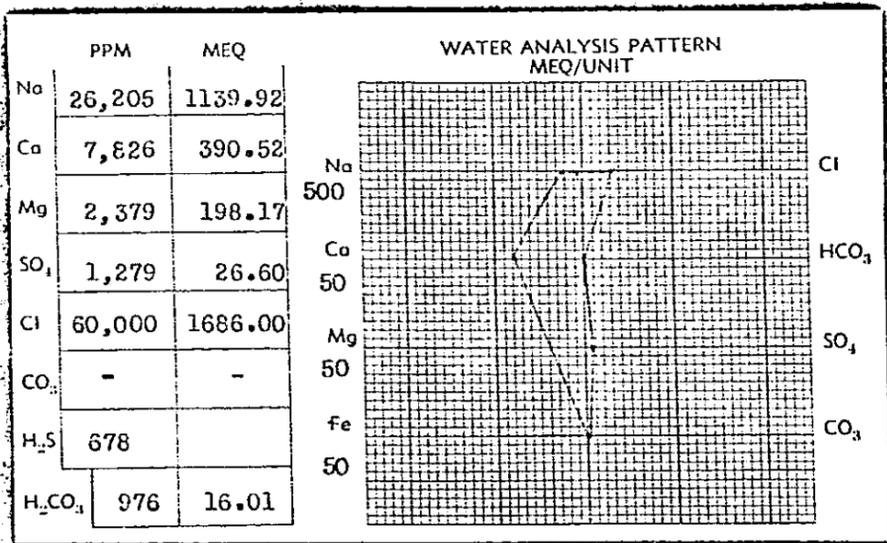
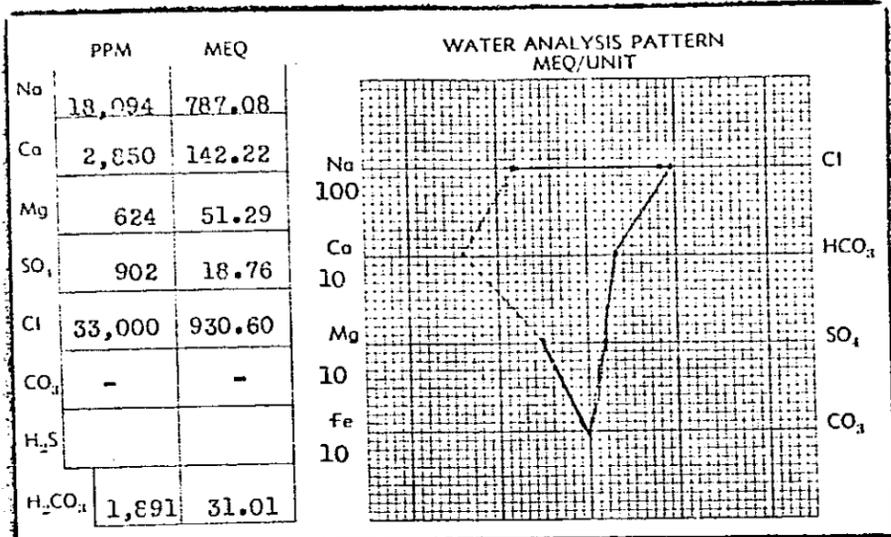
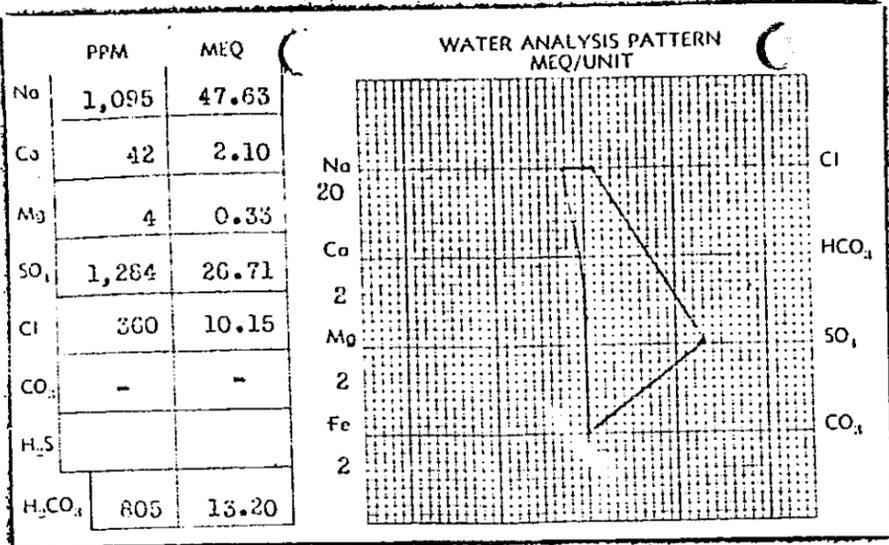
State Arizona County Apache Field East Boundary Butte
 Loc. C NE SW 11-41N-28E. Date April 22, 1959
 Operator Shell Oil Company Well Unit No. 23-11
 Depth 4876 - 5040' Formation Desert Creek
 Resistivity 2.21 @ 68 °F pH 7.8 Sp. Gr. ? @ ? °F
 Total Solids PPM By Evap. 4,180 By Calc. 3,181
 How Sampled from DST No. 5 - Chloride as NaCl 594 PPM.
 Remarks Recovered 15 bbls oil-out sulfur water.
Light sassy mud. Very organic filtrate.
Believe this is mainly mud filtrate.
Chem Lab report No. 4-159
 WATER ANALYSIS CARD CAR-PRO-1875

State Arizona County Apache Field East Boundary Butte
 Loc. C NE SW 11-41N-28E. Date April 27, 1959
 Operator Shell Oil Company Well No. 23-11 Unit.
 Depth 5062 - 5126' Formation Paradox - Akah
 Resistivity 0.14 @ 68 °F pH 7.0 Sp. Gr. ? @ ? °F
 Total Solids PPM By Evap. 58,016 By Calc. 56,401
 How Sampled from DST 7A - Chloride as NaCl 54,404 PPM.
 Remarks Clear water.
Correlates with Paradox water from this field.
Chem Lab report No. 4-359
 WATER ANALYSIS CARD CAR-PRO-1875

State Arizona County Apache Field East Boundary
 Loc. C NE SW 11-41N-28E. Date April 21, 1959
 Operator Shell Oil Company Well No. Unit 23-11
 Depth 5450 - 5513' Formation Tonhonadla, Lower Hermosa
 Resistivity 0.088 @ 68 °F pH 6.5 Sp. Gr. ? @ ? °F
 Total Solids PPM By Evap. 104,150 By Calc. 98,170
 How Sampled DST No. 6-A - Chloride as NaCl 98,940 PPM
 Remarks Light green sulfur water. H2S 678 PPM.
Correlates with Hermosa water from DST No. 3, of Unit No. 3
Believe this is formation water.
Chem Lab report No. 4-259
 WATER ANALYSIS CARD CAR-PRO-1875

State Arizona County Apache Field East Boundry Butte
 Loc. 6-41N-29E C SE SE Date (old)
 Operator Shell Oil Company Well No. 1 Navajo
 Depth 4884 - 4976' Formation Hermosa
 Resistivity 0.17 @ 68 °F pH ? Sp. Gr. ? @ ? °F
 Total Solids PPM By Evap. 16,132 By Calc. 53,976
 How Sampled from blow down line - Chloride as NaCl 52,266 PPM
 Remarks





JUL 14 5 6 7 18
STAT
CONS.

Form 9-331 b
(April 1952)

	11	
	X	

(SUBMIT IN TRIPPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Budget Bureau No. 42-R359.4
Approval expires 12-31-60.

Indian Agency Navajo
Allottee Tribal Lands
Lease No. 14-20-603-227

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL.....	SUBSEQUENT REPORT OF WATER SHUT-OFF.....	
NOTICE OF INTENTION TO CHANGE PLANS.....	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING.....	X
NOTICE OF INTENTION TO TEST WATER SHUT-OFF.....	SUBSEQUENT REPORT OF ALTERING CASING.....	
NOTICE OF INTENTION TO REDRILL OR REPAIR WELL.....	SUBSEQUENT REPORT OF REDRILLING OR REPAIR.....	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE.....	SUBSEQUENT REPORT OF ABANDONMENT.....	
NOTICE OF INTENTION TO PULL OR ALTER CASING.....	SUPPLEMENTARY WELL HISTORY.....	
NOTICE OF INTENTION TO ABANDON WELL.....	<u>Subsequent Report of Completion</u>	X

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

May 12, 19 59

Well No. East Boundary Butte 23-11 located 1960 ft. from [N] line and 1960 ft. from [W] line of sec. 11

NE SW 11 41 N 28 E G & S.R.D.M.
(4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)
East Boundary Butte Apache Arizona
(Field) (County or Subdivision) (State or Territory)

The elevation of the Kelly Bushing ~~water flow~~ above sea level is 5437 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

- 4-17-59 Ran and cemented (4872') 5-1/2", 14#, J-55 casing at 4882' with 325 sacks cement. Ran cement log found top of cement at 3960'. Released rig.
- 4-22-59 Bullet perforated 4540' - 4596' and 4603' - 4608' with 2 holes/ft. and 4460' - 4510' with 4 holes/ft. Ran 2-1/2" tubing to 4627', packer at 4627'.
- 4-23-59 Spotted mud acid (500 gal.) over perforations. Set packer at 4525', acidized below packer with 2000 gal. reg. acid, maximum pressure 900 psi., rate 4 bbl./min. Acidized above packer with 2000 gal. regular acid, 0 psi, 5.1 bbl./min.

REPRESENTATIVE INITIAL PRODUCTION

Flowing, 104 B/D gross, 104 B/D clean, cut 0.4%, 775 MCF/D gas, GOR 7450, 20/64" bean, IP 940, CP 1100. Completed 4-25-59.

GOR Rptd at 85000:1 5/22/59.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Shell Oil Company

Address 705 West Municipal Drive
Farmington, New Mexico

Original signed by
B. W. SHEPARD
By B. W. Shepard
Title Exploitation Engineer

69 27



8153



Mr. Bill Hobro, Shell Oil Co., L. A., California
phoned and talked to MB - April 22, 1959 - 3:00 P.M.

Will complete the Shell 23-11 well; perforating today.

TD 5513'
Set 5½" casing; set at 4882'.

Make 2 tests:
1. Perforate at 4550'
2. Perforate at 4450'

Well will be developed as an oil well. Hope to be
on production within a week.

Transporting will be handled ala - Humble - McWood Corporation
to Red Mesa.

Mr. Hobro requested another copy of rules, checked me
out on distribution of copies to Farmington office.

He requested a supply of forms (when ready) be mailed
to:

Mr. R. H. MacAlister at Farmington. He will be
the Arizona agent. We are to check our files to
see if he has been designated, if not write Hobro
a note and he will take it from there.

Forms requested were:

P-1
P-7
P-9
P-12
P-15 & 15 A
P-18

2 ✓

Mailed
4-27-59

Also G-8 if they make gas wells on the other 2 shut-in wells.

Fritz; will they need P-7 if they go into the 2 old wells?
question is - gas or oil on the shut-ins.

Form 9-331 D
(April 1952)

	11	
X		

(SUBMIT IN TRIPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Budget Bureau No. 42-R356.4
Approval expires 12-31-60.

Indian Agency Navajo

Allottee Trinial Lands

Lease No. 11-20-603-227

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL	SUBSEQUENT REPORT OF WATER SHUT-OFF	
NOTICE OF INTENTION TO CHANGE PLANS	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF	SUBSEQUENT REPORT OF ALTERING CASING	
NOTICE OF INTENTION TO REDRILL OR REPAIR WELL	SUBSEQUENT REPORT OF REDRILLING OR REPAIR	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE	SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO PULL OR ALTER CASING	SUPPLEMENTARY WELL HISTORY	X
NOTICE OF INTENTION TO ABANDON WELL		

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

March 23, 1959

Well No. 23-11 is located 1980 ft. from WEST line and 1980 ft. from WEST line of sec. 11

NE SW 11 41N 28E Q35RUM
 (1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)

East Boundary Apache Arizona
 (Field) (County or Subdivision) (State or Territory)

The elevation of the ~~2431.000~~ Kelly Bushing above sea level is 5437 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

- Spudded 3-18-59
- 3-19-59 Ran and cemented (555') 6-5/8", 28#, J-55 casing at 565' with 250 sacks to 1:1 Diamix followed by 100 sacks cement treated with 2% calcium chloride.
- 3-20-59 Good returns to surface. Flanged up and waited on cement. Pressure tested casing and BOP with 700 psi, OK.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Shell Oil Company

Address 705 West Municipal Drive
Farrington, New Mexico

Original signed by
E. W. SHEPARD

By E. W. Shepard
Title Exploitation Engineer

692



5627

MAR 31 1959

STATE LAND DEPARTMENT
STATE OF ARIZONA

Form G 51

Form Prescribed Under Oil and Gas Conservation Act of 1951

NOTICE OF INTENTION TO DRILL NEW WELL

This notice and surety bond must be filed and permit
must be granted before drilling begins

March 4 1959

State Land Commissioner

In compliance with Statewide Rule 3, notice is hereby given that is is our
intention to commence the work of drilling well No. 23-11 Sec. 11,

T. 41N, R. 28E, G&SR B.& M., East Boundary Butte Field,
Apache County.

Legal description of lease #14-20-603-227 Tribal Lands
(Attach map or plat to scale)

Indian Agency, Window Rock, Arizona

Location of Well: 1980'N and 1980'E of SW Corner Section 11
(Give exact footage from section corners or other

legal subdivisions or streets)
Proposed drilling depth 5600 feet. Acres in drilling unit 40. Has
surety bond been filed? yes. Is location a regular or exception to
spacing rule? regular.

Elevation of ground above sea level 5424 feet. (approx. ground)

All depth measurements taken from top of Kelly Bushing
(Derrick, floor, Rotary Table or Kelly

Bushing) which is 9 feet above the ground.
*Exact footage will not be ascertained until rig
PROPOSED CASING PROGRAM has been moved in.

Size of Casing Inches A.P.I.	Weight	Grade and Type	Top	Bottom	Cementing Depths
8-5/8"	28	H-40	0	600	0 to 600
5-1/2"	14	J-55	0	5600+	5100 - 5600

Intended Zone or Zones of completion:
Name Perforated Interval

Hermosa - Paradox 4600+ - 4700+ (Nav. E-1 Zone)

AFFIDAVIT:

I hereby certify under the penalty of perjury, that the information contained
and statements herein made are to the best of my knowledge and belief, true, correct
and complete.

Shell Oil Co., 705 West Municipal Drive,
(Applicant) Farmington, N. M.

By R. S. Mac Alister, Jr., Div. Exploitation
Engr.

Application approved this 5th day of March 1959

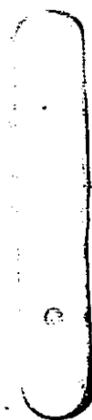
Permit NO. 69

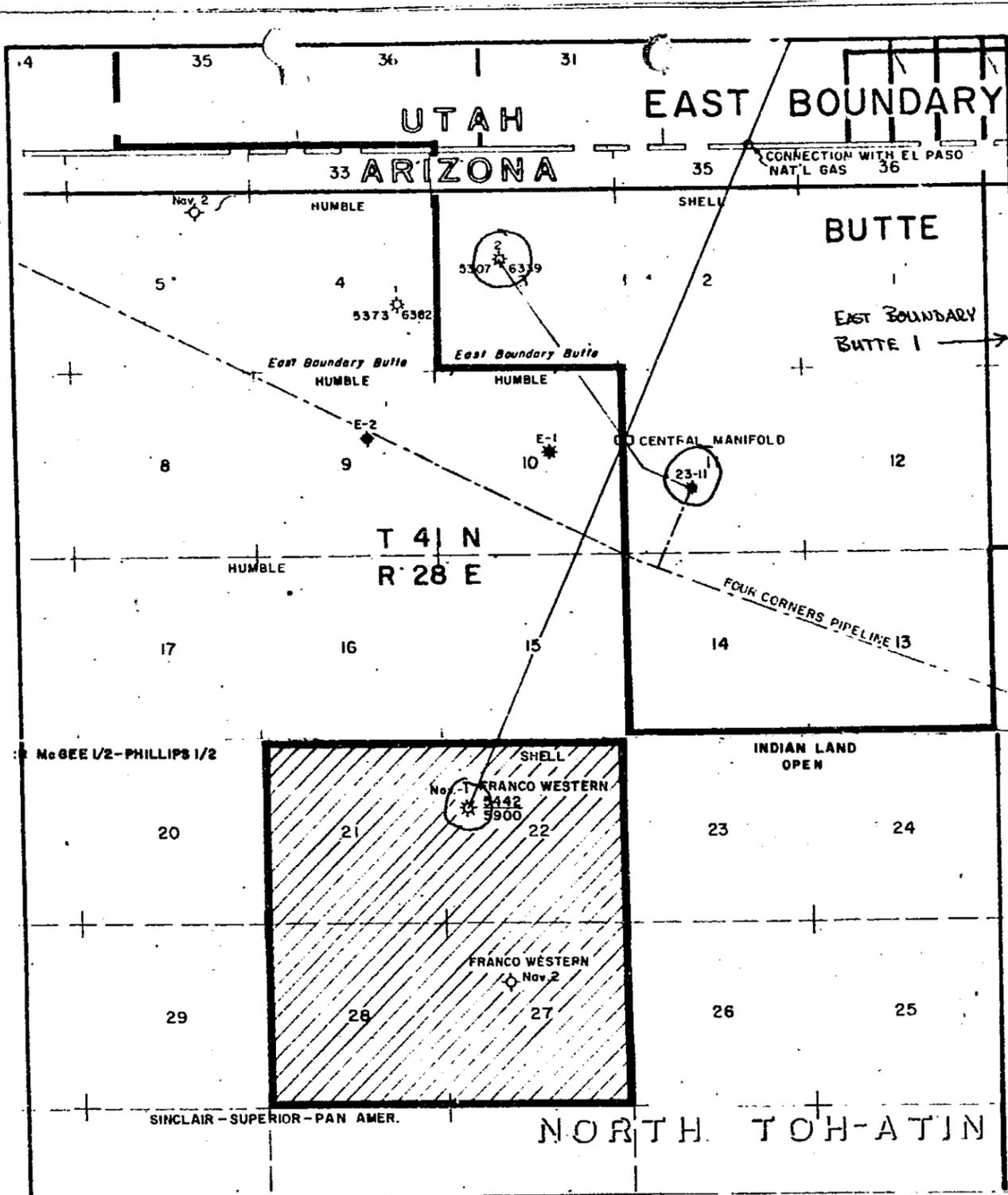
Obed M. Larsen
State Land Commissioner

OK P. W. Johnson
3/5/59 69



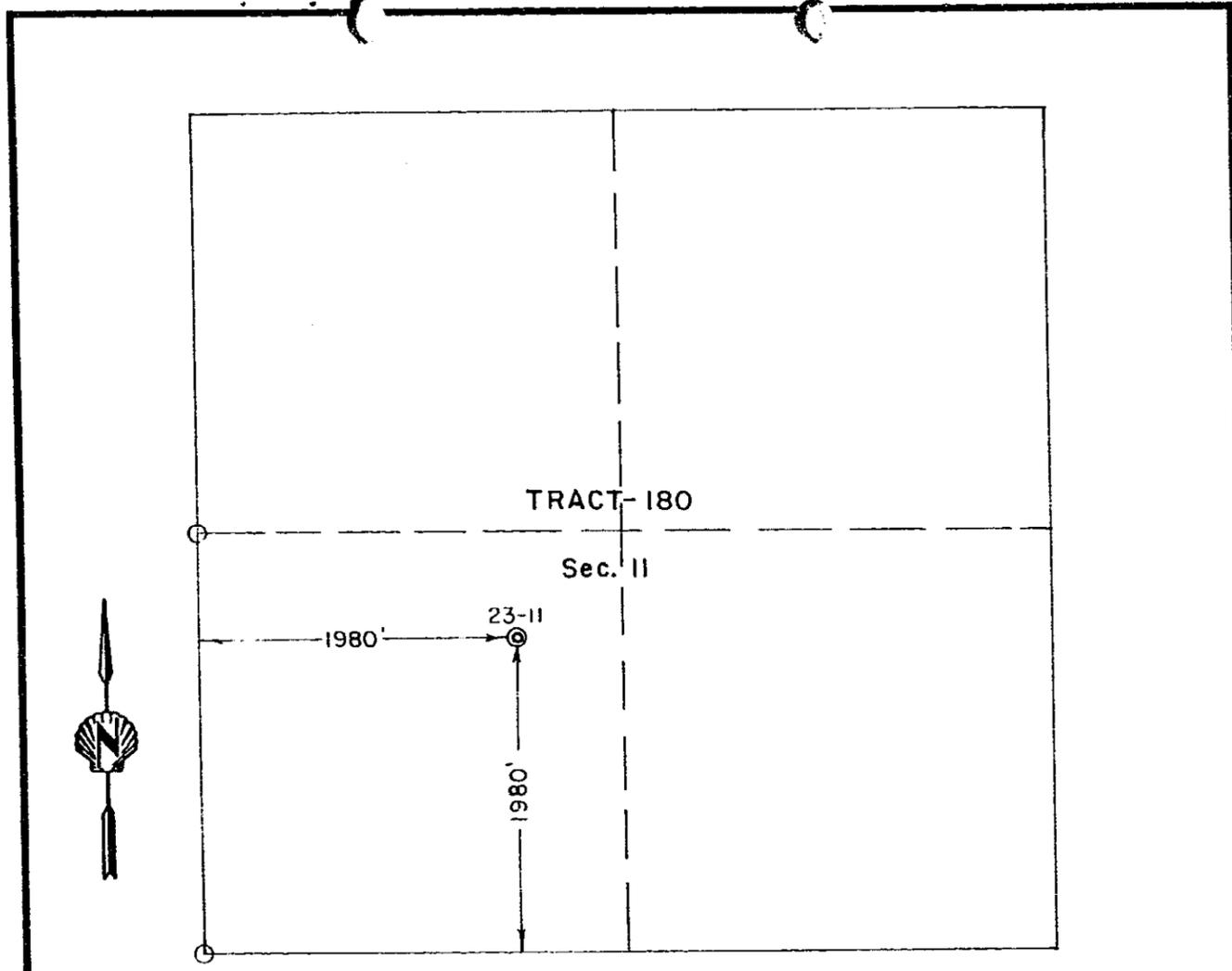
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- 69
- LEGEND —
- ⊙ Wells discussed in text
 - ▨ Franco Western earned a 1/2 undivided interest in 2560 acres for test well.
 - Gas gathering lines
 - Oil line to Four Corners Pipeline

SHELL OIL COMPANY	PACIFIC COAST AREA FARMINGTON DIVISION	EXPLOITATION DEPT.
EAST BOUNDARY BUTTE & NORTH TOH-ATIN AREA		
San Juan County, Utah & Apache County, Arizona		
DATE: 11-63	SCALE: 1" = 4000'	FIG. 5
BY: R.F.D.		270 1706
APPROVED: A.F.D.		



Elev. Data
 Ground 5424 U.G.
 Matt. _____
 D.F. _____
 K.B. _____
 B.M. 5458.60

This is to certify that the above plat was plotted from field notes of a survey made under my supervision, and that the same is true and correct to the best of my knowledge and belief.

John Belser
 Registered Land Surveyor
 Arizona Certificate 2954

DRAWN BY B.H.F.	SHELL OIL COMPANY	SCALE 1" = 1000'
CHECKED BY		Z-20-1113
DATE 2-2-59		

Location East Boundary Butte #23-11
 Section 11 Tract 180 T41N, R28E, G & S.R.M. Apache Co. Arizona

69



2742

MERRION OIL & GAS CORPORATION
610 REILLY AVE. • P. O. Box 840
FARMINGTON, NEW MEXICO 87499

RECEIVED PH. 505-327-9801
NOV 24 1986
O & G CONS. COMM.

November 20, 1986

Arizona Oil & Gas Conservation Commission
3110 N. 19th Avenue, Suite 190
Phoenix, Arizona 85007

Attention: Rudy Ybarra

Re: Well Status
East Boundary Butte
Apache Co., Arizona

Dear Mr. Ybarra:

Enclosed please find the "Notice of Intent to" and "Subsequent Report of" sundry notices for the plugging and abandonment of the Navajo 23-11 and the Navajo 2-11. Both wells are located in Section 11, T41N, R28E in Apache Co., Arizona.

The following is a list of the status of the wells which Merrion Oil and Gas operates in the East Boundary Butte Field, Apache Co., Arizona:

LEASE	WELL NAME	STATUS
14-20-603-226	Navajo No. 2 ²²	SI Gas Well
	Navajo No. 2-13 ⁴⁵¹	P & A
	Navajo No. 3-3 ⁵¹⁴	SI
	Navajo No. 3-11 ⁵¹⁸	SI
14-20-603-227	Navajo No. 2-11 ⁵¹⁸	P & A
	Navajo No. 23-11 ⁵¹⁸	P & A
14-20-603-412	Navajo No. E-1 ⁵¹⁸	P & A
14-20-603-413	Navajo No. 1 ²⁸	Pumping Oil Well
	Navajo No. 3 ⁵¹⁵	Salt Water Disposal

also 2 Navajo

If you need any additional information, please advise.

Respectfully yours,

MERRION OIL & GAS CORPORATION

T. Gregory Merrion
T. Gregory Merrion, Production Engineer

TGM/am

Enc.

69

February 3, 1978

Mr. Robert R. Rosnik
Consolidated Oil and Gas, Inc.
1860 Lincoln Street
Denver, Colorado 80295

Re: Blanket Performance Bond USF&G 31380-13-99-68

Dear Mr. Rosnik:

Consolidated Oil and Gas, Inc., has complied with all the rules and regulations of the Arizona Oil and Gas Conservation Commission. Therefore, I am authorized to release Consolidated Oil and Gas, Inc., from all responsibilities under this bond.

USF&G is being notified by the Oil and Gas Conservation Commission, by copy of this letter, of the release of the bond.

Very truly yours,

W. E. Allen
Director
Enforcement Section

WEA/yb

cc - USF&G

We do not have the address of the issuing office of the referred bond, therefore we are asking you to forward USF&G's copy of this letter to the correct office.

69

Operator Consolidated Oil & Gas, Inc.

Bond Company U.S.F. & G. Amount 25,000

Bond No. 31380-13-99-68 Date Approved 2-13-68

Permits covered by this bond:

- 22
- 69
- 481
- 488
- 490
- 514
- 524
- 528
- 37
- 518
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____

CANCELLED
DATE 2-2-79 *wbl*

SEE FILE 518
FOR CANCELLED
BOND
CANCELLED
DATE _____

February 20, 1976

Ms. Fay Bryan
Underwriter
The Travelers
Four Greenway Plaza East
Houston, TX 77046

RE: Blanket Oil & Gas Well Drilling Bond
Shell Oil Company, Principal
Bond #S-218

Dear Ms. Bryan:

Please refer to your letter of February 2, 1976 requesting cancellation of the above referenced bond and our letter to you dated February 5, 1976.

We have now received a request from Shell Oil Company for cancellation of this bond. Shell has complied with all the rules and regulations of this Commission and, therefore, this letter is our approval for the cancellation of Bond #S-218.

Very truly yours,

W. E. Allen, Director
Enforcement Section

WEA/sl

cc: L. L. Waggoner
Shell Oil Company

February 5, 1976

Mrs. Fay Bryan
Underwriter
The Travelers
Four Greenway Plaza East
Houston, Texas 77046

RE: Blanket Oil & Gas Well Drilling Bond
Shell Oil Company, Principal

Dear Mrs. Bryan:

Before this Commission can acknowledge cancellation of the above referenced bond, a request by the principal under this bond should be received by this office.

Very truly yours,

W. E. Allen, Director
Enforcement Section

WEA/sl



SHELL OIL COMPANY

P.O. BOX 831
HOUSTON, TEXAS 77001

February 18, 1976

Subject: Blanket Oil and Gas Well Drilling Bond
State of Arizona

Office of Oil and Gas Conservation Commission
State of Arizona
8686 North Central, Suite 106
Phoenix, Arizona 85020

Attention Mr. W. E. Allen, Director Enforcement Section

Gentlemen:

We have been forwarded a copy of your letter dated February 5, 1976, addressed to the Travelers, advising them that before you can acknowledge cancellation of the above bond, that you require a request by the principal. Therefore, please be advised that Shell Oil Company wishes that the above bond be cancelled.

We appreciate your kind assistance in this matter. If you require anything further, please advise.

Yours very truly,

L. L. Waggoner
Land Department
Western Division

LLW:PEE

CANCELLED

DATE

2-20-76



THE TRAVELERS

Surety Department
Robert S. Winter, Manager

February 2, 1976

Oil and Gas Conservation Commission
State of Arizona
4515 North 7th Avenue
Phoenix, Arizona 85013

Re: Blanket Oil & Gas Well Drilling
Bond
Bond No. S-218 (1270000)
Shell Oil Company, Principal

Gentlemen:

The Travelers Indemnity Company is surety on the above bond in the amount of \$25,000.00 dated December 9, 1971. It is now our desire to terminate this bond and we would, therefore, appreciate receiving your acknowledgment that the bond has been cancelled for future liability.

A return envelope is enclosed for your convenience in replying.

Yours very truly,

THE TRAVELERS INDEMNITY COMPANY

Fay Bryan
(Mrs.) Fay Bryan
Underwriter

fb

Enc.

CANCELLED

DATE 2-20-76

RECEIVED

FEB 5 1976

THE TRAVELERS

THE TRAVELERS INSURANCE COMPANY - THE TRAVELERS INDEMNITY COMPANY

SURETY DIVISION
ELSTON K. SMITH, MANAGER



DENVER OFFICE
101 University Boulevard
DENVER, COLORADO 80206
Telephone: 388-6244

December 10, 1971

State of Arizona
Oil and Gas Conservation Commission
3500 North Central Avenue
Phoenix, Arizona

Gentlemen:

Re: Shell Oil Company
\$25,000. Bond
Serial No. S-218

Enclosed herewith please find the above captioned bond which has been properly executed and signed and countersigned by a resident agent of the State of Arizona.

Very truly yours,

Surety Division

mjvs
Enc.

CANCELLED

DATE

2-20-69

RECEIVED

JAN 23 1972

O & G CONS. COMM.

Operator SHELL OIL COMPANY

Bond Company TRAVELERS INDEMNITY Amount \$25,000

Bond No. S-218 Date Approved 1-3-72

Permits covered by this bond:

None (formerly 22#69)

- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____

CANCELLED
DATE 2-20-76

BOND

KNOW ALL MEN BY THESE PRESENTS

BOND SERIAL NO. S-218

That we: SHELL OIL COMPANY, a corporation

of the County of: Denver in the State of: Colorado

as principal, and THE TRAVELERS INDEMNITY COMPANY, a corporation

of the State of Connecticut
AUTHORIZED TO DO BUSINESS WITHIN the State of Arizona.

as surety, are held and firmly bound unto the State of Arizona in the penal sum as indicated, lawful money of the United States, for which payment, well and truly to be made, we bind ourselves, and each of us, and each of our heirs, executors, administrators or successors, and assigns jointly and severally, firmly by these presents.

The conditions of this obligation is that whereas the above bounden principal proposes to drill a well or wells for oil, gas or stratigraphic purposes in and upon the following described land situated within the State, to wit:

for the production of oil and gas and the installation of equipment

(May be used as blanket bond or for single well)

necessary and incidental thereto for the operation and maintenance of

such wells;

NOW, THEREFORE, if the above bounden principal shall comply with all of the provisions of the laws of this State and the rules, regulations and orders of the Oil and Gas Conservation Commission, especially with reference to the requirements of A.R.S. 27-516, providing for the proper drilling, casing and plugging of said well or wells, and filing with the Oil & Gas Conservation Commission all notices and records required by said Commission, in the event said well or wells do not produce oil or gas in commercial quantities, or cease to produce oil or gas in commercial quantities, then this obligation is void; otherwise, the same shall be and remain in full force and effect.

Penal sum of TWENTY FIVE THOUSAND and NO/100 DOLLARS (\$25,000.00)

Witness our hands and seals, this 9th day of December, 1971

RECEIVED

JAN 03 1972

O & G CONS. COMM.

SHELL OIL COMPANY

By: J. B. Stanley
Principal

J. B. STANLEY, ATTORNEY-IN-FACT

Witness our hands and seals, this 9th day of December, 1971

THE TRAVELERS INDEMNITY COMPANY

BY Walter J. Shulder Jr.
RESIDENT AGENT

By: Gary R. Hanson
Gary R. Hanson, Attorney-in-Fact Surety

(If the principal is a corporation, the bond should be executed by its duly authorized officers, with the seal of the corporation affixed. When principal or surety executes this bond by agent, power of attorney or other evidence of authority must accompany the bond.)

Approved 1-3-72
Date

W. B. O'Connell
STATE OF ARIZONA
OIL AND GAS CONSERVATION COMMISSION

CANCELLED
DATE 1-20-69

The Travelers Indemnity Company
Hartford, Connecticut

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS:

That THE TRAVELERS INDEMNITY COMPANY, a corporation of the State of Connecticut, does hereby make, constitute and appoint

____ Gary F. Chinn, L. M. DeHaven, Gary R. Hanson, Herbert J. Harris, M. J. Saucier, E. K. Smith, Robert J. Sunich, all of Denver, Colorado, EACH _____

its true and lawful Attorney(s)-in-Fact, with full power and authority, for and on behalf of the Company as surety, to execute and deliver and affix the seal of the Company thereto, if a seal is required, bonds, undertakings, recognizances, consents of surety or other written obligations in the nature thereof, as follows:

____ Any and all bonds, undertakings, recognizances, consents of surety or other written obligations in the nature thereof _____

and to bind THE TRAVELERS INDEMNITY COMPANY thereby, and all of the acts of said Attorney(s)-in-Fact, pursuant to these presents, are hereby ratified and confirmed.

This appointment is made under and by authority of the following by-laws of the Company which by-laws are now in full force and effect:

ARTICLE IV, SECTION 13. The Chairman of the Board, the President, the Chairman of the Finance Committee, the Chairman of the Insurance Executive Committee, any Senior Vice President, any Vice President, any Second Vice President, any Secretary or any Department Secretary may appoint attorneys-in-fact or agents with power and authority, as defined or limited in their respective powers of attorney, for and on behalf of the Company to execute and deliver, and affix the seal of the Company thereto, bonds, undertakings, recognizances, consents of surety or other written obligations in the nature thereof and any of said officers may remove any such attorney-in-fact or agent and revoke the power and authority given to him.

ARTICLE IV, SECTION 15. Any bond, undertaking, recognizance, consent of surety or written obligation in the nature thereof shall be valid and binding upon the Company when signed by the Chairman of the Board, the President, the Chairman of the Finance Committee, the Chairman of the Insurance Executive Committee, any Senior Vice President, any Vice President or any Second Vice President and duly attested and sealed, if a seal is required, by any Secretary or any Department Secretary or any Assistant Secretary or when signed by the Chairman of the Board, the President, the Chairman of the Finance Committee, the Chairman of the Insurance Executive Committee, any Senior Vice President, any Vice President or any Second Vice President and countersigned and sealed, if a seal is required, by a duly authorized attorney-in-fact or agent; and any such bond, undertaking, recognizance, consent of surety or written obligation in the nature thereof shall be valid and binding upon the Company when duly executed and sealed, if a seal is required, by one or more attorneys-in-fact or agents pursuant to and within the limits of the authority granted by his or their power or powers of attorney.

This power of attorney is signed and sealed by facsimile under and by the authority of the following Resolution adopted by the Directors of THE TRAVELERS INDEMNITY COMPANY at a meeting duly called and held on the 30th day of November, 1959:

VOTED: That the signature of any officer authorized by the By-Laws and the Company seal may be affixed by facsimile to any power of attorney or special power of attorney or certification of either given for the execution of any bond, undertaking, recognizance or other written obligation in the nature thereof; such signature and seal, when so used being hereby adopted by the Company as the original signature of such officer and the original seal of the Company, to be valid and binding upon the Company with the same force and effect as though manually affixed.

____ This power of attorney revokes that dated March 12, 1970 on behalf of Gary F. Chinn, L. M. DeHaven, Gary R. Hanson, Herbert J. Harris, M. J. Saucier, E. K. Smith _____

IN WITNESS WHEREOF, THE TRAVELERS INDEMNITY COMPANY has caused these presents to be signed by its proper officer and its corporate seal to be hereunto affixed this 13th day of April 19 71.

THE TRAVELERS INDEMNITY COMPANY

By



RECEIVED

JAN 03 1972

O & G CONS. COMM.

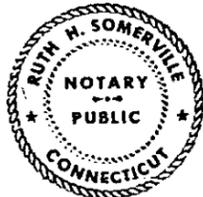
E. A. Houser
Secretary, Surety
CANCELLED

Secretary, Surety

2-20-69

State of Connecticut, County of Hartford—ss:

On this 13th day of April 1971 before me personally came E. A. Houser III to me known, who, being by me duly sworn, did depose and say: that he resides in the State of Connecticut; that he is Secretary (Surety) of THE TRAVELERS INDEMNITY COMPANY, the corporation described in and which executed the above instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by authority of his office under the by-laws of said corporation, and that he signed his name thereto by like authority.



Ruth H. Somerville

Notary Public

My commission expires April 1, 1974

CERTIFICATION

I, D. J. Nash, Assistant Secretary (Surety) of THE TRAVELERS INDEMNITY COMPANY certify that the foregoing power of attorney, the above quoted Sections 13. and 15. of Article IV of the By-Laws and the Resolution of the Board of Directors of November 30, 1959 have not been abridged or revoked and are now in full force and effect.

Signed and Sealed at Hartford, Connecticut, this 9th day of December 19 71.



A handwritten signature in dark ink, appearing to read "D. J. Nash".

Assistant Secretary, Surety

January 17, 1966

Shell Oil Company
1008 West Sixth Street
Los Angeles, California 90054

Attention: Right of Way Section

Re: Travelers Indemnity Company Bonds S-218 and S-92

Gentlemen:

Enclosed please find an approved copy of Travelers Indemnity Company Bond S-218 in the amount of \$25,000, wherein Shell Oil Company is Principal.

Please be advised that Bond S-218 now replaces Travelers Bond S-92 and that said Bond S-92 may now be cancelled and Shell Oil Company now has no further obligation to this Commission under said Bond S-92.

In reviewing Bond S-218 the conditions and obligations expressed therein are "for the production of oil and gas and the installation of equipment necessary and incidental thereto for the operation and maintenance of such wells;". While this wording is satisfactory to the Commission, it must be understood by all parties that this bond does specifically cover the obligations of Shell Oil Company to comply with all rules and regulations of this Commission concerning not only production, but the drilling, completion, plugging and abandoning of any well by Shell Oil Company within the State of Arizona as well.

Should you have any questions would you please advise.

Very truly yours,

John Bannister
Executive Secretary
mr
enc

CANCELLED

DATE

1-3-72

cc: The Travelers Indemnity Co., 2200 N. Central, Phoenix, Ariz.
Mr. D.E. Clark, Manager, Land Department, Shell Oil Co.,
1008 W. Sixth Street, Los Angeles

Operator SHELL OIL COMPANY

Bond Company TRAVLERS INDEMNITY Amount \$25,000

Bond No. S218 Date Approved 1-7-166 1-3-72

Permits covered by this bond:

*This bond is replaced
by Bond # S-218 (12-9-1971)*

22 - under Consolidated's Bond
69 - " " "

CANCELLED

DATE ~~1-7-166~~ 2-20-76

LIABILITY UNDER THIS BOND MAY NOT BE TERMINATED WITHOUT WRITTEN PERMISSION OF THIS COMMISSION.

BOND (Replaces Travelers Bond No S-92) KNOW ALL MEN BY THESE PRESENTS BOND SERIAL NO. S-218

That we: SHELL OIL COMPANY, a corporation of the County of: Los Angeles in the State of: California as principal, and THE TRAVELERS INDEMNITY COMPANY, a corporation of the State of Connecticut AUTHORIZED TO DO BUSINESS WITHIN the State of Arizona.

as surety, are held and firmly bound unto the State of Arizona in the penal sum as indicated, lawful money of the United States, for which payment, well and truly to be made, we bind ourselves, and each of us, and each of our heirs, executors, administrators or successors, and assigns jointly and severally, firmly by these presents.

The conditions of this obligation is that whereas the above bounden principal proposes to drill a well or wells for oil, gas or stratigraphic purposes in and upon the following described land situated within the State, to wit:

for the production of oil and gas and the installation of equipment (May be used as blanket bond or for single well) necessary and incidental thereto for the operation and maintenance of such wells;

CANCELLED

NOW, THEREFORE, if the above bounden principal shall comply with all of the provisions of the laws of this State and the rules, regulations and orders of the Oil and Gas Conservation Commission, especially with reference to the requirements of A.R.S. 27-516, providing for the proper drilling, casing and plugging of said well or wells, and filing with the Oil & Gas Conservation Commission all notices and records required by said Commission, in the event said well or wells do not produce oil or gas in commercial quantities, or cease to produce oil or gas in commercial quantities, then this obligation is void; otherwise, the same shall be and remain in full force and effect.

Penal sum of TWENTY FIVE THOUSAND AND NO/100 DOLLARS (\$25,000.00)

Witness our hands and seals, this 9th day of December, 1965

SHELL OIL COMPANY By: [Signature] Its Attorney-In-Fact Principal

Witness our hands and seals, this 9th day of December, 1965

Arizona Countersignature THE TRAVELERS INDEMNITY COMPANY By: Richard A. Beardsley Surety Attorney-In-Fact

(If the principal is a corporation, the bond should be executed by its duly authorized officers, with the seal of the corporation affixed. When principal or surety executes this bond by agent, power of attorney or other evidence of authority must accompany the bond.)

Approved Date: Jan 17, 1966 STATE OF ARIZONA OIL & GAS CONSERVATION COMMISSION By: John Yarnesley

STATE OF ARIZONA OIL & GAS CONSERVATION COMMISSION Bond File Two Copies Form No. 2

Permit No. _____

The Travelers Indemnity Company
Hartford, Connecticut

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS:

That THE TRAVELERS INDEMNITY COMPANY, a corporation of the State of Connecticut, does hereby make, constitute and appoint

_____ Richard A. Beardsley, J. P. Harrison, George E. Miley, all of
Phoenix, Arizona, EACH _____

its true and lawful Attorney(s)-in-Fact, with full power and authority, for and on behalf of the Company as surety, to execute and deliver and affix the seal of the Company thereto, if a seal is required, bonds, undertakings, recognizances or other written obligations in the nature thereof, as follows:

_____ Any and all bonds, undertakings, recognizances or other written
obligations in the nature thereof _____

and to bind THE TRAVELERS INDEMNITY COMPANY thereby, and all of the acts of said Attorney(s)-in-Fact, pursuant to these presents, are hereby ratified and confirmed.

This appointment is made under and by authority of the following by-laws of the Company which by-laws are now in full force and effect:

ARTICLE IV, SECTION 10. The President, the Chairman of the Finance Committee, the Chairman of the Insurance Executive Committee, any Vice President, any Secretary or any Department Secretary may appoint attorneys-in-fact or agents with power and authority, as defined or limited in their respective powers of attorney, for and on behalf of the Company to execute and deliver, and affix the seal of the Company thereto, bonds, undertakings, recognizances or other written obligations in the nature thereof and any of said officers may remove any such attorney-in-fact or agent and revoke the power and authority given to him.

ARTICLE IV, SECTION 12. Any bond, undertaking, recognizance or written obligation in the nature thereof shall be valid and binding upon the Company when signed by the President, the Chairman of the Finance Committee, the Chairman of the Insurance Executive Committee, or any Vice President and duly attested and sealed, if a seal is required, by any Secretary or any Department Secretary or any Assistant Secretary, or when signed by the President, the Chairman of the Finance Committee, the Chairman of the Insurance Executive Committee, or any Vice President and countersigned and sealed, if a seal is required, by a duly authorized attorney-in-fact or agent; and any such bond, undertaking, recognizance or written obligation in the nature thereof shall be valid and binding upon the Company when duly executed and sealed, if a seal is required, by one or more attorneys-in-fact or agents pursuant to and within the limits of the authority granted by his or their power or powers of attorney.

This power of attorney is signed and sealed by facsimile under and by the authority of the following Resolution adopted by the Directors of THE TRAVELERS INDEMNITY COMPANY at a meeting duly called and held on the 30th day of November, 1959:

VOTED: That the signature of any officer authorized by the By-Laws and the Company seal may be affixed by facsimile to any power of attorney or special power of attorney or certification of either given for the execution of any bond, undertaking, recognizance or other written obligation in the nature thereof; such signature and seal, when so used being hereby adopted by the Company as the original signature of such officer and the original seal of the Company, to be valid and binding upon the Company with the same force and effect as though manually affixed.

_____ This power of attorney revokes that issued March 1, 1954 on behalf of
Melvin W. Carle, power of attorney dated October 30, 1956 on behalf

CANCELLED

DATE

~~1-3-60~~ 2-20-76

The Travelers Indemnity Company
Hartford, Connecticut

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS:

That THE TRAVELERS INDEMNITY COMPANY, a corporation of the State of Connecticut, does hereby make, constitute and appoint

Richard A. Beardsley, J. P. Harrison, George E. Miley, all of
Phoenix, Arizona, EACH

its true and lawful Attorney(s)-in-Fact, with full power and authority, for and on behalf of the Company as surety, to execute and deliver and affix the seal of the Company thereto, if a seal is required, bonds, undertakings, recognizances or other written obligations in the nature thereof, as follows:

Any and all bonds, undertakings, recognizances or other written obligations in the nature thereof

and to bind THE TRAVELERS INDEMNITY COMPANY thereby, and all of the acts of said Attorney(s)-in-Fact, pursuant to these presents, are hereby ratified and confirmed.

This appointment is made under and by authority of the following by-laws of the Company which by-laws are now in full force and effect:

ARTICLE IV, SECTION 10. The President, the Chairman of the Finance Committee, the Chairman of the Insurance Executive Committee, any Vice President, any Secretary or any Department Secretary may appoint attorneys-in-fact or agents with power and authority, as defined or limited in their respective powers of attorney, for and on behalf of the Company to execute and deliver, and affix the seal of the Company thereto, bonds, undertakings, recognizances or other written obligations in the nature thereof and any of said officers may remove any such attorney-in-fact or agent and revoke the power and authority given to him.

ARTICLE IV, SECTION 12. Any bond, undertaking, recognition or written obligation in the nature thereof shall be valid and binding upon the Company when signed by the President, the Chairman of the Finance Committee, the Chairman of the Insurance Executive Committee, or any Vice President and duly attested and sealed, if a seal is required, by any Secretary or any Department Secretary or any Assistant Secretary, or when signed by the President, the Chairman of the Finance Committee, the Chairman of the Insurance Executive Committee, or any Vice President and countersigned and sealed, if a seal is required, by a duly authorized attorney-in-fact or agent; and any such bond, undertaking, recognition or written obligation in the nature thereof shall be valid and binding upon the Company when duly executed and sealed, if a seal is required, by one or more attorneys-in-fact or agents pursuant to and within the limits of the authority granted by his or their power or powers of attorney.

This power of attorney is signed and sealed by facsimile under and by the authority of the following Resolution adopted by the Directors of THE TRAVELERS INDEMNITY COMPANY at a meeting duly called and held on the 30th day of November, 1959:

VOTED: That the signature of any officer authorized by the By-Laws and the Company seal may be affixed by facsimile to any power of attorney or special power of attorney or certification of either given for the execution of any bond, undertaking, recognition or other written obligation in the nature thereof; such signature and seal, when so used being hereby adopted by the Company as the original signature of such officer and the original seal of the Company, to be valid and binding upon the Company with the same force and effect as though manually affixed.

This power of attorney revokes that issued March 1, 1954 on behalf of Melvin W. Carle, power of attorney dated October 30, 1956 on behalf of Richard A. Beardsley and power of attorney dated December 5, 1956 on behalf of Earl J. Seagars

IN WITNESS WHEREOF, THE TRAVELERS INDEMNITY COMPANY has caused these presents to be signed by its proper officer and its corporate seal to be hereunto affixed this 1st day of June 19 61.

THE TRAVELERS INDEMNITY COMPANY

By

R. W. Kamman

Secretary, Fidelity and Surety



State of Connecticut, County of Hartford--ss:

On this 1st day of June in the year 1961 before me personally came R. W. Kamman to me known, who, being by me duly sworn, did depose and say: that he resides in the State of Connecticut; that he is Secretary (Fidelity and Surety) of THE TRAVELERS INDEMNITY COMPANY, the corporation described in and which executed the above instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by authority of his office under the by-laws of said corporation, and that he signed his name thereto by like authority.



Margaret D. Tuttle

Notary Public

My commission expires April 1, 1964

CERTIFICATION

I, W. A. Person, Assistant Secretary (Fidelity and Surety) of THE TRAVELERS INDEMNITY COMPANY certify that the foregoing power of attorney, the above quoted Sections 10 and 12 of Article IV of the By-Laws and the Resolution of the Board of Directors of November 30, 1959 have not been modified or revoked and are now in full force and effect.

Signed and Sealed at Hartford, Connecticut, this 9th day of December 19 65.




Assistant Secretary, Fidelity and Surety



SHELL OIL COMPANY

SHELL BUILDING
1008 WEST SIXTH STREET
LOS ANGELES, CALIFORNIA 90054

TELEPHONE: 482-3131

January 14, 1966

Subject: Travelers Replacement
Bond No. S-218
File: Bonds General
Blanket Oil & Gas
Drilling Bond

CERTIFIED RETURN
RECEIPT REQUESTED

Oil and Gas Conservation Commission
State of Arizona
1624 West Adams, Room 202
Phoenix, Arizona 85007

Attention Mr. John Bannister
Executive Secretary

Gentlemen:

We shall appreciate your accepting the attached Travelers Bond No. S-218 dated December 9, 1965 which, with your permission, will replace the present Travelers Bond No. S-92 dated June 19, 1964, that was previously filed with your office to cover the above subject activity.

If you are agreeable to this bond substitution, will you kindly provide Shell Oil Company, attention Right of Way Section, with a letter of exoneration advising that we have no further liability under Bond No. S-92.

Yours very truly,

D. E. Clark

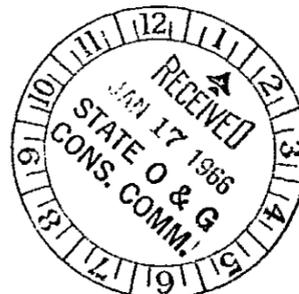
For D. E. Clark
Manager, Land Department

NJVI:jbc

Attachment

CANCELLED

DATE ~~1-17-66~~ 2-20-76



No. 7415611
\$60.00

BOND

KNOW ALL MEN BY THESE PRESENTS:

THAT, the undersigned SHELL OIL COMPANY, a corporation organized under the laws of the State of Delaware and duly authorized to do business in the State of Arizona, as Principal, and the undersigned FEDERAL INSURANCE COMPANY, a corporation organized under the laws of the State of New Jersey, as Surety, are held and firmly bound unto the State of Arizona for the use and benefit of the Oil and Gas Conservation Fund in the sum of Ten Thousand Dollars (\$10,000.00) for the payment of which well and truly to be made, we bind ourselves, our successors and assigns, jointly and severally, by these presents.

THE CONDITION OF THE ABOVE OBLIGATION IS SUCH that whereas the said Principal is contemplating the drilling of wells in the State of Arizona for the production of oil and gas and the installation of equipment necessary and incidental thereto for the operation and maintenance of such wells;

NOW, THEREFORE, if in its oil and gas operations in the State of Arizona said Principal shall comply with rules, regulations and orders promulgated under subsections 1, 2 and 3 of Paragraph (a) of Section 17 (Sec. 11-1717 Arizona Code) of the Oil and Gas Conservation Act of 1951, then this obligation shall be void, otherwise to remain in full force and effect.

IN WITNESS WHEREOF, said Principal and Surety have caused their respective names to be subscribed hereto this 20 day of November, 1953.

SHELL OIL COMPANY

ACKNOWLEDGMENT OF ANNEXED INSTRUMENT

STATE OF CALIFORNIA }
COUNTY OF Los Angeles } ss.:

On this 20th day of November in the year one thousand nine hundred and fifty-three before me, M. E. Fanks, a Notary Public in and for the County of Los Angeles residing therein, duly commissioned and sworn, personally appeared F. Grosszel known to me to be the attorney-in-fact of FEDERAL INSURANCE COMPANY, the Corporation that executed the within instrument, and also known to me to be the person who executed the within instrument on behalf of the Corporation therein named and acknowledged to me that such Corporation executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal in the County of Los Angeles the day and year in this certificate first above written.

CANCELLED
DATE 7-15-6

M. E. Fanks
Notary Public in and for the County of Los Angeles State of California

My Commission expires Feb. 1955

SP-676

PRINTED IN U. S. A. (7-55-5M 518199)

78
18-70

See Permit 18 for Bond

February 5, 1976

Mr. J. Gregory Merrion
Merrion & Bayless
P. O. Box 1541
Petroleum Club Plaza
Farmington, NM 87401

RE: U. S. Fidelity & Guaranty Company
Surety Bond #01-0130-972-74

Dear Greg:

Back on October 23, 1974, you requested your surety, USF&G, to notify you of their acceptance of the wells that you had recently taken over from Consolidated Oil & Gas. A check of our files indicates that USF&G never responded to your request.

We have received a request for cancellation of a bond that technically still covers some wells that you as operator have also covered under the above referenced bond. Before, we can comply with the request for the release of this bond, we must have a written statement from USF&G assuming bonding responsibilities of these wells.

Will you please have USF&G write this Commission agreeing to assume bonding responsibilities for all the wells that you operate in this state. The reason that this acknowledgement from USF&G is necessary is because this blanket bond states, "any and all oil and gas wells drilled within the state of Arizona". Our opinion is that legally USF&G could claim that only wells actually drilled by you were covered under Bond #01-0130-972-74.

We will appreciate your cooperation in this matter.

Sincerely,

W. E. Allen, Director
Enforcement Section

WEA/sl

69



OFFICE OF

Oil and Gas Conservation Commission

STATE OF ARIZONA
4515 NORTH 7TH AVE.
PHOENIX, ARIZONA 85013
PHONE: (602) 271-5161

February 7, 1975

Mr. Robert L. Bayless
Petroleum Club Plaza Building
P. O. Box 1541
Farmington, New Mexico 87401

Re: East Boundary Butte Commingling

We fully concur with Mr. G. R. Daniel's letter of December 26, granting permission to commingle at the surface of production in the Dineh-bi-Keyah Field. As you have mentioned, it will be necessary to meter the produced gas at each well and monthly production tests will be adequate to determine the oil production from each lease.

You mentioned that your plans are to convert the Consolidated No. 3-11 well, Permit No. 490, into a water disposal well. It will be necessary that you receive permission from this Commission prior to this conversion.

Very truly yours,

W. E. Allen, Director
Enforcement Section

WEA/rlb

Robert L. Bayless
PETROLEUM CLUB PLAZA BUILDING
P. O. BOX 1541
FARMINGTON, NEW MEXICO 87401

February 4, 1975

State of Arizona
Oil and Gas Conservation Commission
4515 North 7th Avenue
Phoenix, Arizona 85013

ATTENTION: Mr. W. E. Allen
Director

Re: East Boundary Butte Commingling

Dear Bill:

Enclosed please find a copy of our letter of October 21, 1974 requesting approval from the United States Geological Survey to commingle production from four Navajo leases and the reasoning behind the request. Also enclosed is a copy of the United States Geological Survey reply approving this request subject to approval by your Commission.

Please consider this a request to commingle the oil and gas produced as set forth in the letter of October 21, 1974.

Yours truly,

MERRION & BAYLESS


Robert L. Bayless

RLB/su

Enclosures: Letter to U.S.G.S. dated October 21, 1974
Letter from U.S.G.S. dated December 26, 1974

RECEIVED
FEB 05 1975
O & G CON. COMM.

October 21, 1974

United States Geological Survey
P.O. Box 959
Farmington, New Mexico 87401

ATTENTION: Mr. Phil McGrath

Re: Request for Permission to Co-
mingle Production from Four
Navajo Leases, East Boundary
Butte Field, Apache County, Arizona.

Gentlemen:

We have heretofore operated the Navajo (14-20-603-413) and Navajo E (14-20-603-412) leases in Apache County, Arizona with production going to parallel tank batteries at a location in the SW/4 of the NE/4 Section 10, T14N, R26E.

We have recently acquired the Consolidated Oil & Gas properties on Navajo leases 14-20-603-226 and 14-20-603-227.

With five wells currently producible, there is a necessity for four tank batteries; each with a great amount of equipment.

Operating costs in this field have been extremely high due to:

1. The necessity to lift large quantities of water to produce either gas or oil.
2. Water disposal expense.
3. Scale and corrosion of flow lines and heater treaters.
4. High gathering and compression costs of natural gas produced.

The continued production from the field depends upon streamlining the operation and getting a better price for the gas. We have negotiated a better gas price and provided we can get FPC approval, we would like to re-vamp the flow line, compressor and tank battery facilities as per the attached plat.

RECEIVED

FEB 05 1975

O & G COM. COMM.



United States Department of the Interior

GEOLOGICAL SURVEY

Drawer 1857
Roswell, New Mexico 88201

December 26, 1974

Mr. J. Gregory Merrion
P. O. Box 507
Farmington, New Mexico 87401

*Approval to
Comingle EBB*

Dear Mr. Merrion:

Your letter of October 21, 1974 requests approval to commingle production on leases 14-20-603-412, -413, -226, and -227 located in secs. 1, 2, 3, 4, 10, 11, 12, 13, 14, 15 and 16, T. 41 N., R. 28 E., East Boundary Butte field, Apache County, Arizona.

As set forth in your request, the expense of operating the field does not justify the duplication of equipment and its maintenance. One tank battery would be located in the NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 3, T. 41 N., R. 28 E., and one compressor set in the SW $\frac{1}{4}$ sec. 2. One oil-gas separator would be set at each well where gas would be metered separately and oil volumes would be allocated back to each well based on monthly tests of each well. The working interest and royalty interest on the four leases are identical.

The method of commingling production is hereby approved subject to like approval by the Arizona Oil and Gas Commission. Any change in this system must receive prior approval from this office. Form 9-361-A, "Lessee's Monthly Report of Sales and Royalty", must show all computations used in oil production allocated to each well.

You are requested to notify the Farmington office when the installation has been completed so that a field inspection can be made.

Sincerely yours,

G. R. DANIELS
Acting Area Oil and Gas Supervisor



OFFICE OF

Oil and Gas Conservation Commission

STATE OF ARIZONA

4515 NORTH 7TH AVE.

PHOENIX, ARIZONA 85013

PHONE: (602) 271-5161

October 28, 1974

Mr. J. Gregory Merrion
Petroleum Engineer
P. O. Box 507
Farmington, New Mexico 87401

Re: East Boundary Butte Field, Apache County, Arizona

Dear Greg:

If you receive approval from the U.S.G.S. and the Navajo Tribe, this Commission has no objections to the two proposals that you mentioned in your letter of October 23, 1974.

We are enclosing copies of our Form No. 15. It will be necessary that you complete this form in its entirety and return two copies to this Commission for our approval. We will also require a diagrammatic sketch of your down-hole installation for this disposal well.

Very truly yours,

W. E. Allen, Director
Enforcement Section

WEA/rlb

Encs.

#69

OFF. 328-0161
RES. 327-9094

J. GREGORY MERRIDON
PETROLEUM ENGINEER
P. O. BOX 807
FARMINGTON, NEW MEXICO 87401

October 23, 1974

State of Arizona
Oil and Gas Conservation Commission
4515 North 7th Avenue
Phoenix, Arizona 85018

ATTENTION: Mr. W. E. Allen
Director

Re: East Boundary Butte Field
Apache County, Arizona

Dear Bill:

Excuse my delay in answering your letter of September 23.

We have requested our surety, WBF&O, to notify you of their acceptance of the following wells to be covered under our bond with their:

Navajo Tribal #8	NE 1/4	SW 1/4	Sec. 2	T4N, R9E
Navajo Tribal #2-3	SE 1/4	SW 1/4	Sec. 3	T4N, R9E
Navajo Tribal #3-11	NE 1/4	SE 1/4	Sec. 3	T4N, R9E
Navajo Tribal #4-11	SW 1/4	NE 1/4	Sec. 11	T4N, R9E
Navajo Tribal #23-11	NE 1/4	SW 1/4	Sec. 11	T4N, R9E

The above wells all being in Apache County, Arizona and effective date of our taking over operations being September 1, 1974.

Enclosed please find a xerox copy of a letter to the U.S.G.I. requesting permission to commingle production in one tank battery to be located in the NE 1/4 SW 1/4 of Section 2. Also enclosed please find a copy of the Federal Rundry Notice requesting approval to convert the well to salt water disposal in the Mississippian-Devonian interval.

RECEIVED

OCT 25 1974

O & G CONS. COMM

22, 69, 490, 514, 518

J. GREGORY MERRION
PETROLEUM ENGINEER

Oil and Gas Conservation Commission
October 23, 1974
Page 2

After reviewing these, we would appreciate your advising (1) if our proposal for corningling will be acceptable to the State of Arizona with monthly tests of each well to determine the monthly split in lieu of the actual measurement required by Rule #308, and (2) whether a hearing will be necessary for the salt water disposal well conversion or whether this can be done administratively.

Thank you for your advice on the above matters.

Yours very truly,

MERRION & BAYLESS

By


J. GREGORY MERRION

JGM/su

Enclosures: Letter to U.S.G.S. dated October 21, 1974
Federal Sundry Notice, Navajo Tribe 3-11 Well dated October 22, 1974.
Flowline Plat

RECEIVED

OCT 25 1974

O & G CONS. COMM.

October 21, 1974

United States Geological Survey
P.O. Box 959
Farmington, New Mexico 87401

ATTENTION: Mr. Phil McGrath

Re: Request for Permission to Co-
mingle Production from Four
Navajo Leases, East Boundary
Butte Field, Apache County, Arizona.

Gentlemen:

We have heretofore operated the Navajo (14-20-603-413) and Navajo E (14-20-603-412) leases in Apache County, Arizona with production going to parallel tank batteries at a location in the SW/4 of the NW/4 Section 10, T41N, R28E.

We have recently acquired the Consolidated Oil & Gas properties on Navajo leases 14-20-603-226 and 14-20-603-227.

With five wells currently producible, there is a necessity for four tank batteries; each with a great amount of equipment.

Operating costs in this field have been extremely high due to:

1. The necessity to lift large quantities of water to produce either gas or oil.
2. Water disposal expense.
3. Scale and corrosion of flow lines and heater treaters.
4. High gathering and compression costs of natural gas produced.

The continued production from the field depends upon streamlining the operation and getting a better price for the gas. We have negotiated a better gas price and provided we can get FPC approval, we would like to re-vamp the flow line, compressor and tank battery facilities as per the attached plat.

RECEIVED

OCT 25 1974

United States Geological Survey
October 21, 1974
Page 2

Under this plan we can utilize existing flow lines to the maximum extent, and by adding a small amount of additional flow line, we can separately gather gas and fluid in separate lines. Hopefully, we can back pressure against the wells, eliminate flow line turbulence thus reducing scale and paraffin problems and increase compressor suction pressure thus reducing horsepower requirements.

The new tank battery will be located in the NE/4 of the SW/4 of Section 3 (near the old Consolidated 3-11 well, which will be converted to disposal). A new compressor site will be erected in the SW/4 of Section 2 replacing the two existing sites.

Oil-gas separators will be installed at each well and gas will be metered before comingling. Oil will be accounted for by monthly tests of each well.

We would appreciate your consideration and approval of this plan.

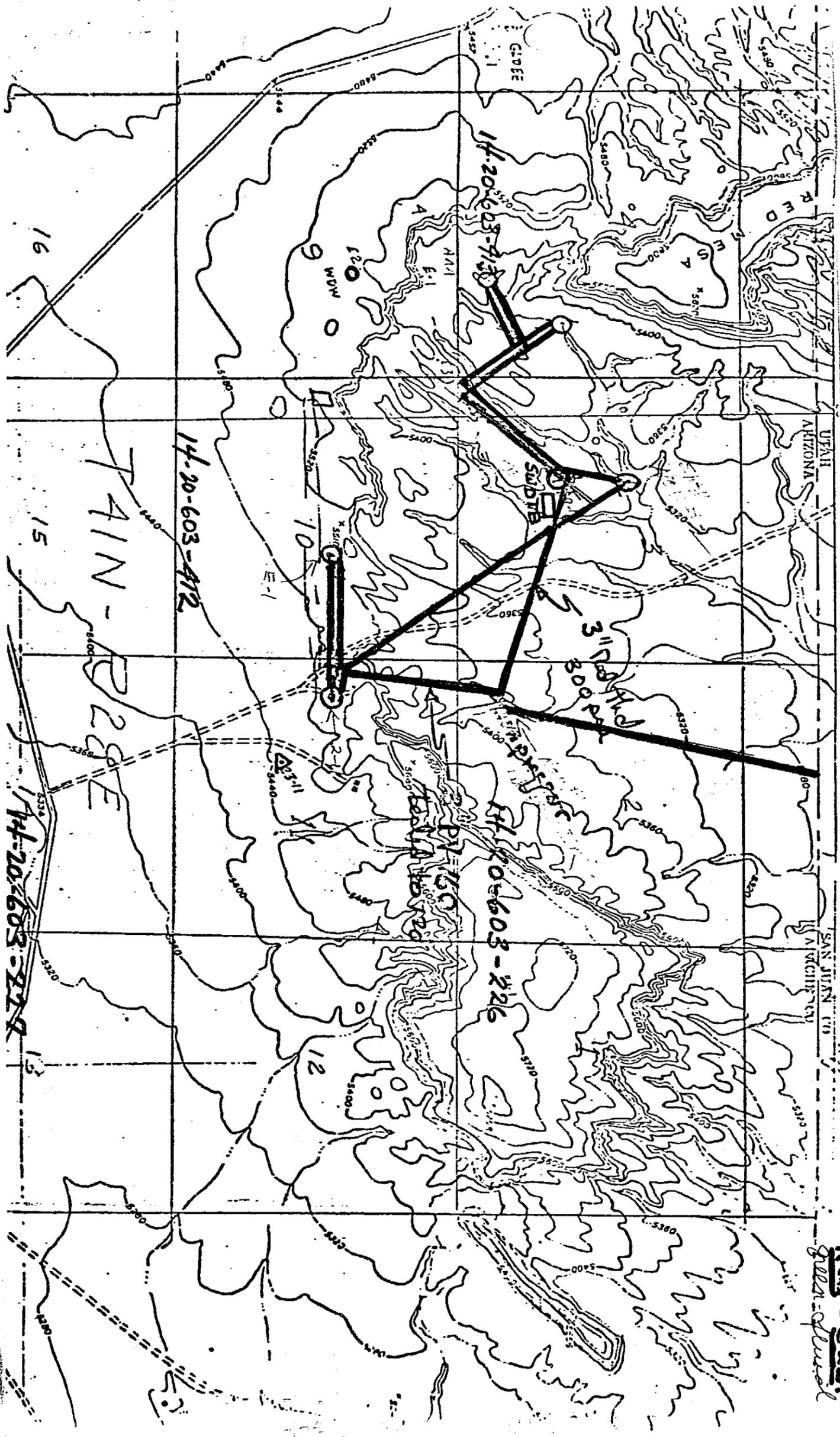
Yours very truly,

MERRION & BAYLESS

Original Signed
J. Gregory Merrion
By J. GREGORY MERRION

JGM/su

Enclosure



1000 = 645.
2000 = 645.

14-20-603-412

14-20-603-412

14-20-603-226

TAIN-228E

14-20-603-229

16

15

13

9

10

12





W
Consolidated Oil & Gas, Inc.

LINCOLN TOWER BUILDING
1860 LINCOLN STREET
DENVER, COLORADO 80203
(303) 255-1751

September 27, 1974

Mr. W. E. Allen
Oil & Gas Conservation Commission
State of Arizona
4515 North 7th Avenue
Phoenix, Arizona 85013

Re: COG #1 & 2
Apache County, Arizona

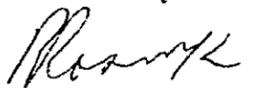
Dear Mr. Allen:

Enclosed per your letter request of September 23, 1974 are Designation of Operator forms executed by Consolidated naming J. Gregory Merion and Robert L. Bayless operator of Navajo Leases 14-20-603-226 and 14-20-603-227 covering all the lands in Apache County, Arizona under those two leases.

If there is anything additional you require, please let me know.

Very truly yours,

CONSOLIDATED OIL & GAS, INC.


Robert R. Rosnik

RRR:da
Enclosures

RECEIVED

SEP 30 1974

O & G CON. COMM.



OFFICE OF
Oil and Gas Conservation Commission
STATE OF ARIZONA
4515 NORTH 7TH AVE.
PHOENIX, ARIZONA 85013
PHONE: (602) 271-5161

September 23, 1974

Mr. J. Gregory Merrion
Merrion & Bayless
P. O. Box 1541
Farmington, New Mexico 87401

Re: Navajo Tribal #2 Navajo #23-11 Consolidated #3
 Sec 3-T41N-R28E Sec 11-T41N-R28E Sec 3-T41N-R28E
 Permit No. 22 Permit No. 69 Permit No. 490

Consolidated Navajo #3-3 Consolidated Navajo #2-11
 Sec 3-T41N-R28E Sec 11-T41N-R28E
 Permit No. 514 Permit No. 518

Dear Greg:

We have been informed by Consolidated that you are now the operators of the above referenced wells. For our records, will you please confirm your take over of these wells listing the well number, legal description and the effective date of the take over.

If it is your intention for these wells to be placed under your existing bond, it will be necessary for your surety company to notify this office that they are accepting these wells to be covered under your bond. It will also be necessary for your surety to specifically describe the wells as to their name and legal description.

I sincerely hope that you people will be able to improve the production on this group of wells.

Very truly yours,

Bill

W. E. Allen, Director
Enforcement Section

WEA/rlb



OFFICE OF
Oil and Gas Conservation Commission

STATE OF ARIZONA
4515 NORTH 7TH AVE.
PHOENIX, ARIZONA 85013
PHONE: (602) 271-5161

September 23, 1974

Mr. J. D. Smothermon
Manager, Operator
Consolidated Oil & Gas, Inc.
Lincoln Tower Building
1860 Lincoln Street
Denver, Colorado 80203

Re: Navajo Tribal #2 Navajo #23-11 Consolidated #3
 Sec 3-T41N-R28E Sec 11-T41N-R28E Sec 3-T41N-R28E
 Permit No. 22 Permit No. 69 Permit No. 490

Consolidated Navajo #3-3 Consolidated Navajo #2-11
 Sec 3-T41N-R28E Sec 11-T41N-R28E
 Permit No. 514 Permit No. 518

Dear Mr. Smothermon:

We are attaching Designation of Operator forms for your use in officially notifying the Commission that the operation of the above referenced wells has been transferred to Merrion and Bayless of Farmington, New Mexico.

It would be appreciated if you would complete this form and return it to this Commission as quickly as possible.

Very truly yours,


W. E. Allen, Director
Enforcement Section

WEA/rlb

Encs.

October 3, 1973

Mr. Floyd E. Ellison, Jr.
Consolidated Oil & Gas, Inc.
Lincoln Tower Building
1860 Lincoln Street
Denver, Colorado 80203

Re: East Boundary Butte #23-11
NE/SW Sec 11-T41N-R28E
Apache County
Permit No. 69

Dear Mr. Ellison:

Your Sundry Notices and Reports on Wells signifying your intentions to workover the above referenced well was received by this office on August 13, 1973 and inadvertently filed without signifying Commission approval to workover this well.

We are sorry for this oversight and this letter will grant approval to do the work you stipulated in your Sundry Notices and Reports on Wells. Also enclosed is a copy of your Sundry Notice.

Very truly yours,

W. E. Allen, Director
Enforcement Section

WEA/rlb

Enc.



OFFICE OF
Oil and Gas Conservation Commission
STATE OF ARIZONA
4515 NORTH 7TH AVE.
PHOENIX, ARIZONA 85013
PHONE: (602) 271-5161

September 18, 1973

Mr. Wayne Rogers
Consolidated Oil & Gas, Inc.
Lincoln Tower Building
1860 Lincoln Street
Denver, Colorado 80203

Dear Mr. Rogers:

Will you please supply this Commission with any information that you might have regarding the recoverable reserves in the East Boundary Butte Field for your Shell Navajo #2 (22), Navajo #2-11 (51S), Navajo #3-3 (514) and Shell Navajo #23-11 (69); and also in the North Toh Atin Field for your Mobil Franco Wyo (32)?

This information will be considered confidential if you so desire.

Thank you for your cooperation.

Very truly yours,

W. E. Allen, Director
Enforcement Section

WEA/rlb



LINCOLN TOWER BUILDING
1860 LINCOLN STREET
DENVER, COLORADO 80203
(303) 255-1751

Consolidated Oil & Gas, Inc.

RECEIVED

AUG 13 1973

O & G CONS. COMM.

August 9, 1973

State of Arizona
Oil & Gas Conservation Commission
4515 North 7th Avenue
Phoenix, Arizona 85013

Re: East Boundary Butte #23-11
NE SW Sec. 11, T41N, R28E
Apache County, Arizona

Gentlemen:

Enclosed please find the original and one copy of your Form 25, "Sundry Notices and Reports on Wells," signifying our intention to rework the captioned well.

Yours very truly,

CONSOLIDATED OIL & GAS, INC.

Floyd E. Ellison, Jr.

Floyd E. Ellison, Jr.
Area Production Manager

FEE:lt
Enclosures

cc: The Navajo Tribe
Minerals Department

PETROLEUM ENGINEERING
RESERVOIR STUDIES
EVALUATIONS
GEOLOGICAL STUDIES

EWELL N. WALSH, P.E.
President

WALSH
ENGINEERING & PRODUCTION
CORPORATION

PETROLEUM CLUB PLAZA BUILDING
P. O. BOX 254
FARMINGTON, NEW MEXICO 87401

LEASE MANAGEMENT
CONTRACT PUMPING
DRILLING SUPERVISION
WORKOVER SUPERVISION

TELEPHONE 325-8203

July 31, 1969

Mr. Leo Case
Production Superintendent
Consolidated Oil & Gas, Inc.
P. O. Box 757
Cortez, Colorado 81321

Ref: Shell Navajo No. 23-11
Shell Navajo No. 2
Franco Wyoming Navajo No. 2

Dear Mr. Case:

7
Enclosed you will find six copies each of the Deliverability Test Reports for the above-referred-to wells.

Two copies of each should be sent to the Arizona Oil and Gas Conservation Commission. The other copies are for your files and distribution.

Very truly yours,



Ewell N. Walsh, P. E.
President

ENW:lt

Enclosures

bcc:Mr. James A. Lambert
Arizona O&GCC



O.K.

K.C. Wilson
x Lambert

July 25, 1969

Mr. Leo Case
Consolidated Oil & Gas, Incorporated
P. O. Box 757
Cortez, Colorado 81321

Re: Franco Western Oil Navajo #1
Shell Oil Navajo #2
Shell Oil Navajo #23-11

Permit 32 x
Permit 22
Permit 69

Dear Mr. Case:

Please advise when we may expect to receive the reports requested in our letters dated May 22 and July 10.

Yours truly,

James A. Lambert
Administrative Assistant

JAL:jf

D.K.

69

oil	n	GAS
396	202	3061
861	MMY	3959
<hr/>		<hr/>
1257		7020

our records, Form 65 indicate above

691K

X-Lambert
X-Chrono

July 10, 1969

Mr. Leo Case
Consolidated Oil & Gas, Incorporated
P. O. Box 757
Cortez, Colorado 81321

Re: Franco Western Oil Navajo #1
Shell Oil Navajo #2
Shell Oil Navajo #23-11

Permit 32 +
Permit 22 +
Permit 69

Dear Mr. Case:

Please refer to our letter dated May 12, 1969. Please advise when we may expect to receive our completed forms 18 and 20 pertaining to the captioned wells. These reports were due this date.

Yours truly,

James A. Lambert
Administrative Assistant

JAL:jf

D.K.

69

X-Lambert
X-Chrono

May 27, 1968

Mr. Leo Case
Consolidated Oil & Gas, Incorporated
P. O. Box 707
Cortez, Colorado 81301

Re: Franco, Masadre Oil Well No. 1
Well No. 2
Well No. 3

Permit 43 X
Permit 44 X
Permit 45

Dear Mr. Case:

In accordance with Rule 491 of the Oil and Gas Conservation Commission, State of Arizona, has adopted procedures for the annual testing for all gas and/or helium wells.

The Commission's procedure is based upon and shall be used in conjunction with the Manual of Well Pressure Testing of Gas Wells as issued by Interstate Oil Compact Commission, P. O. Box 50177, Oklahoma City, Oklahoma 73153.

The Commission has prepared, in addition, a supplement to the IOCC manual inasmuch as that manual is based upon a pressure base other than the 15.0 psia required by the State of Arizona. The supplement to the IOCC manual has made all necessary corrections to the IOCC manual to reflect the 15.0 psia pressure base.

The tests required by Rule 491 shall be conducted during the month of June each year and reported in duplicate as July 15th of each year. Forms 16 and 20 will be used for this purpose.

Yours truly,

James A. Lambert
Administrative Assistant

JB:f
Enc.

cc: Consolidated Oil & Gas in Denver, Colorado

69 O.K.



SHELL OIL COMPANY

P. O. Box 1200
Farmington, New Mexico 87401

May 19, 1969

Oil and Gas Conservation Commission
State of Arizona
1624 West Adams - Room 202
Phoenix, Arizona 85007

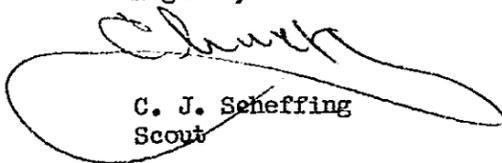
Attention Mr. James Scurlock

Dear Jim:

We are pleased to furnish information on Shell Oil Company's East Boundry Butte #23-11, as per your inquiry of May 13, 1969. If we can be of further help, please let us know.

92
Enjoyed very much the golf game. I sold my Magic cow pasture sticks and got me a set of Magic Star Sam Snead clubs. Hope we can get together soon.

Regards,


C. J. Scheffing
Scout

CJS:ccb

Enclosures



69

X-Chrono

May 13, 1969

Mr. C. J. Scheffing
P. O. Box 1200
805 West Municipal Drive
Farmington, New Mexico 87401

Dear Chuck:

Hurry up and come back. I have a new golf grip.

Incidentally, would you please be so kind as to give me what
scout data you have on the ⁶⁹Shell #23-11 Navajo at East
Boundary Butte. I particularly need the core information
and detailed drill stem test information. Thanks much.

I still say I was robbed on that 18th hole. You are supposed
to ground your club in a sand pit. You and that putter.
not

Kindest regards,

James Scurlock
Geologist

JS:jf

69



LINCOLN TOWER BUILDING
1860 LINCOLN STREET
DENVER, COLORADO 80203
(303) 255-1751

Consolidated Oil & Gas, Inc.

April 18, 1969



State of Arizona
Oil & Gas Conservation Commission
1624 West Adams, Room 202
Phoenix, Arizona 85007

Attention: Mr. John Banister

Gentlemen:

East Boundary Butte Field
Apache County, Arizona

Consolidated Oil & Gas, Inc. acquired certain wells from Shell Oil in the East Boundary Butte field and one well from Mobil Oil in what is referred to as the North Toh-Atin field, all located in Apache County, Arizona. The two gas wells purchased from Shell in the East Boundary Butte field are known as the Navajo 2.2 No. 2, located in the SE NW of Section 3, and Navajo No. 23-11, 69 located in NE SW of Section 11, T41N-R28E. The Mobil well 3.2 (Franco Western), Navajo No. 1, is located in the SW NW of Section 22. These names are being used by Consolidated.

Since acquiring the acreage, Consolidated drilled and completed its Navajo No. 2-13, located in the SW SW of Section 2. This well is carried on your records as the No. 1 Navajo under Permit No. 481. It is the dual oil producing and water disposal well.

Consolidated drilled and is currently completing its Navajo No. 3-11, located in the NE SW of Section 3. You call this well the No. 3 Navajo under Permit No. 490. Your Permit No. 488 for the No. 2 Navajo was for a location in the NE SE of Section 3. Consolidated carries this location as the Navajo No. 3-9, and the well has not been drilled.

69

O.K.

State of Arizona
Oil & Gas Commission
Page 2
April 18, 1969

Attached to this letter is a map of the area showing our well locations with Consolidated's designated well numbers. If necessary, we will change our well numbers to meet the requirements of your department.

Consolidated proposes to lay a flow line from the well located in the NE SW of Section 3, Permit No. 490, to the tank battery located near the well in the SW SW of Section 2, Permit No. 481. We propose to produce the full well stream through the pipeline into a heater treater which will be equipped with an oil meter. The oil will be metered to a common tank battery along with oil from our Navajo No. 2-13 well. A difference in working interest owners exists between these two wells. However, the rights of the working interest owners and royalty owners will be protected by metering the oil in accordance with good oil field practices. Oil from our No. 23-11 well is transported through Four Corners Pipeline; however, we are having to truck the oil from our Navajo No. 2-13 well, Permit No. 481. Consequently, oil from our Navajo No. 3-11, Permit No. 490, will also be trucked. Form 8 has been filed with your office.

Even though you have given verbal approval of this proposal, it would be appreciated if you would give us written approval for our records. If you need any additional information, please call me collect.

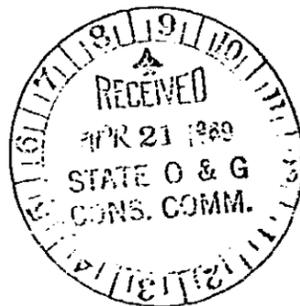
Yours truly,

CONSOLIDATED OIL & GAS, INC.

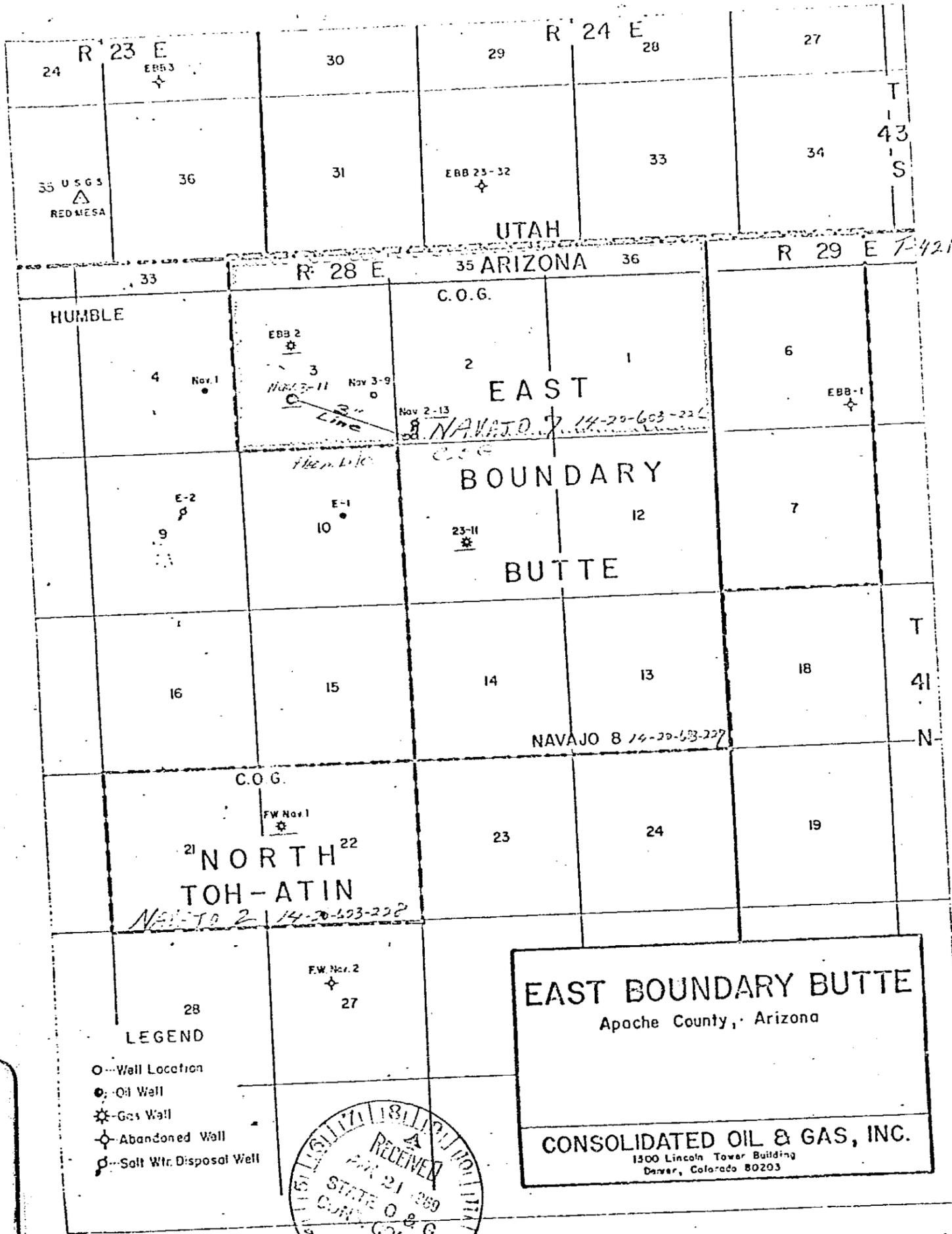
Wayne Rogers
Wayne Rogers

WR/jt

Enclosure



D.K.



- LEGEND**
- Well Location
 - Oil Well
 - ★ Gas Well
 - ◆ Abandoned Well
 - Salt Wtr. Disposal Well



EAST BOUNDARY BUTTE
 Apache County, Arizona

CONSOLIDATED OIL & GAS, INC.
 1500 Lincoln Tower Building
 Denver, Colorado 80203

D.K.



SHELL OIL COMPANY

SHELL BUILDING
1008 WEST SIXTH STREET
LOS ANGELES, CALIFORNIA 90054

TELEPHONE: 482-3131

October 17, 1968

Subject: State of Arizona
Travelers Indemnity
Company Bond S-218

Oil and Gas Conservation
Commission
State of Arizona, Room 202
1624 West Adams
Phoenix, Arizona

Attention: Mr. James A. Lambert
Administrative Assistant

Gentlemen:

Responsive to your letter of October 3, 1968 relating to cancellation of the subject Bond, please be advised the Bond to which you refer covers Shell operations throughout the State of Arizona. Therefore, we do not desire its cancellation at this time.

We appreciate your consideration in this matter.

Very truly yours,

For: D. E. Clark
Land Manager

TLM:prf

#69

#22

D.K.





OFFICE OF

Oil and Gas Conservation Commission

STATE OF ARIZONA

ROOM 202

1624 WEST ADAMS

Phoenix, Arizona 85007

PHONE: 271-5161

October 7, 1968

Mr. Ewell N. Walsh
Petroleum Club Plaza Building
P. O. Box 254
Farmington, New Mexico 87401

Re: Shell #2 Navajo
T41N, R28E, G & SRM
Sec. 3: SE/4 NW/4
Apache County, Arizona
Permit #22

Shell #23-11 Navajo
T41N, R28E, G & SRM
Sec. 11: NE/4 SW/4
Apache County, Arizona
Permit #69

Franco Wyoming #1 Navajo
T41N, R28E, G & SRM
Sec. 22: SW/4 NW/4
Apache County, Arizona
Permit #32

Dear Mr. Walsh:

Mr. Case, Consolidated Oil and Gas Company, reported to us on September 12 that the captioned wells were tested on July 7, and the information is in your hands. Mr. Case indicated that we should expect to receive the test information in a "reasonable" period of time. Almost four weeks have passed, and we have not received the test results. Rule 401 - Capacity Tests of Gas Wells - requires a report for the annual testing of all gas wells. Please furnish these reports at once.

Recd 10/9/68

Yours truly,

J. A. Lambert

James A. Lambert
Administrative Assistant



The reports referred to above have been sent to Leo Case, Consolidated Oil and Gas, for signature and mailing to Arizona O&GCC.

Ewell N. Walsh

Ewell N. Walsh, P. E.
Pres., Walsh Eng. & Prod. Corp.

69 O.K.

October 3, 1968

Mr. D. E. Clark
Shell Oil Company
1008 West 8th Street
Los Angeles, California 90054

Re: Shell #2 Navajo
T41N, R28E, G & SRM
Sec. 3: SE/4 NW/4
Apache County, Arizona
Permit #22

Shell #23-11 Navajo
T41N, R28E, G & SRM
Sec. 11: NE/4 SW/4
Apache County, Arizona
Permit #69

Dear Mr. Clark:

Our records indicate that the captioned wells are indemnified by a United States Fidelity and Guaranty bond wherein Consolidated Oil and Gas, Incorporated, is the principal. They are the present operators of these wells.

We are willing to terminate Travelers Indemnity Company Bond S-218 wherein Shell Oil Company is principal should you notify us that you wish to have the bond released.

Yours truly,

James A. Lambert
Administrative Assistant

JAL:jf

69 O.K.

September 30, 1966

Mr. Leo Case
Consolidated Oil and Gas, Inc.
P. O. Box 757
Cortez, Colorado

Re: Shell #2 Navajo
T41N, R28E, G & SRM
Sec. 3: SE/4 NW/4
Apache County, Arizona
Permit #22

Shell #23-11 Navajo
T41N, R28E, G & SRM
Sec. 11: NE/4 SW/4
Apache County, Arizona
Permit #69

Franco Wyoming #1 Navajo
T41N, R28E, G & SRM
Sec. 22: SW/4 NW/4
Apache County, Arizona
Permit #32

Dear Mr. Case:

The Commission looks to you for the report necessary to satisfy Rule 401. Our conversation on September 12 indicates that we would receive these tests within a reasonable period of time. It is your responsibility to see that Mr. Walsh or whoever your contractual agent may be delivers the reports.

Yours truly,

James A. Lambert
Administrative Assistant

JAL:jf

D.F.

69

Memo: File
From: J. Lambert

9-12-68
1:25 p.m.--Time

Re: Shell #2 Navajo
T41N, R28E, G & SRM
Sec. 3: SE/4 NW/4
Apache County, Arizona
Permit #22

Shell #23-11 Navajo
T41N, R28E, G & SRM
Sec. 11: NE/4 SW/4
Apache County, Arizona
Permit #69

Franco Wyoming #1 Navajo
T41N, R28E, G & SRM
Sec. 22: SW/4 NW/4
Apache County, Arizona
Permit #32

Mr. Case, Consolidated Oil and Gas, called this date. He states that each of the captioned wells were tested on July 7, and the information is in the hands of Red Walsh, Farmington. Mr. Case feels that the delay in reporting is due to secondary information needed by Mr. Walsh on the Franco Wyoming #1 Navajo well. He indicates that we should expect to receive these tests in a reasonable period of time.

74

69 D.K.

September 10, 1968

Mr. Leo Case
Consolidated Oil and Gas, Inc.
P. O. Box 757
Cortez, Colorado

Re: Shell #2 Navajo
T41N, R28E, G & SRM
Sec. 3: SE/4 NW/4
Apache County, Arizona
Permit #22

Shell #23-11 Navajo
T41N, R28E, G & SRM
Sec. 11: NE/4 SW/4
Apache County, Arizona
Permit #69

Franco Wyoming #1 Navajo
T41N, R28E, G & SRM
Sec. 22: SW/4 NW/4
Apache County, Arizona
Permit #32

Dear Mr. Case:

Rule 401 - Capacity Tests of Gas Wells - requires a report for the annual testing of all gas wells. By letter dated July 10, 1968, this office granted an extension and exception in your particular case pertaining to the captioned wells. We call attention to the fact that we have not received the report due August 10, 1968. Please furnish this report by return mail.

Yours truly,

James A. Lambert
Administrative Assistant

JAL:jf

D.K.

69



OFFICE OF
Oil and Gas Conservation Commission
STATE OF ARIZONA
ROOM 202
1624 WEST ADAMS
Phoenix, Arizona 85007
PHONE: 271-5161

July 10, 1968

Consolidated Oil and Gas, Inc.
P.O. Box 757
Cortez, Colorado

Attention: Mr. Leo Case, Production Superintendent

Re: Capacity Testing of Gas Wells

Shell #s Navajo
SE NW 3-41N-28E Apache County, Arizona, File 22

Shell #23-11 Navajo
NE SW 11-41N-28E Apache County, Arizona, File 69

Franco Wyoming #1 Navajo
SW NW 22-41N-28E Apache County, Arizona, File 32

Gentlemen:

Mr. Ewell N. Walsh outlined to this Commission your request for an exception to the procedure for capacity testing of captioned wells.

Consolidated Oil and Gas, Inc. is granted an exception in that it will not be necessary to obtain the multi-point back pressure curve. In all calculations for deliverability the value of "n" shall be 0.85.

Further, an extension is granted to conduct the tests during the month of July and to submit the reports by August 10, 1968.

Very truly yours,

John Bannister
John Bannister
Executive Secretary
mr

cc: Mr. Wayne Rogers, Consolidated Oil and Gas, Inc., Denver
Mr. Ewell N. Walsh

69

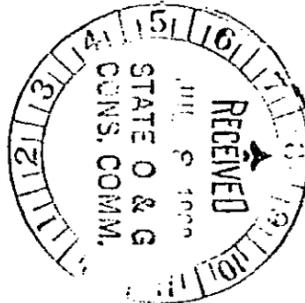
O.K.

EWELL N. WALSH
PETROLEUM ENGINEER CONSULTANT
PETROLEUM CLUB PLAZA BLDG.
P. O. BOX 254
FARMINGTON, NEW MEXICO
87401

TELEPHONE BUS. 325-8203
RES. 325-6495

July 3, 1968

Mr. John Bannister
Executive Secretary
Oil and Gas Conservation Commission
State of Arizona
1624 West Adams, Room 202
Phoenix, Arizona 85007



Reference: Consolidated Oil and Gas Company
Shell Navajo No. 23-11-#64
Shell Navajo No. 2 #22
Mobil Franco Wyo. Navajo #22

Dear Mr. Bannister:

Mr. Leo Case, Consolidated Oil and Gas, requested that I obtain approval for exception to Rule 401 and date for filing the results of tests concerning the above referred to wells.

It is necessary to compress the gas production from the wells due to high gathering line pressure. In order to obtain sufficient drawdown of flowing pressures, to obtain a multi-point back pressure curve, it would be necessary to produce the wells to the atmosphere. Producing the wells to the atmosphere at this time would be a waste of gas. Therefore, it is requested that our exception to Rule 401 be approved to eliminate the necessity of obtaining the multi-point back pressure curve.

With approval of the above exception the slope or "n" value for use in the deliverability calculation will not be determined. It is requested that the "N" value of 0.85 be approved for use in the necessary calculations.

It is also requested that approval be given to file the necessary forms as soon as possible after July 15, 1968. The forms cannot be filed by the July 15 date due to the time needed to conduct the deliverability test, obtain calculated gas volumes and prepare the necessary forms.

Your approval of the requests would be greatly appreciated.

Very truly yours,

Ewell N. Walsh, P. E.
Petroleum Engineer Consultant

Mary - letter to Consolidated granting exception - copy of letter in #22, 322 4-69

OK JB 7-8-68

69 O.K.

February 2, 1968

Consolidated Oil & Gas, Inc.
4150 East Mexico Avenue
Denver, Colorado 80222

Re: Shell #2 Navajo
SE NW 3-41N-28E, Apache County, Arizona
File 22

Shell #23-11 Navajo
NE SW 11-41N-28E, Apache County, ARIZONA
File 69

Gentlemen:

We are returning herewith the operator's certificate of compliance and authorization to transport oil or gas from lease covering captioned wells.

Our records show that these wells are covered by Travelers Indemnity Company bond S-218 with Shell Oil Company as principal.

As you are aware, a well must be under bond at all times. Should Shell desire to have this bond released, it will be necessary that you furnish bond to cover these wells.

If we may at any time be of service, please advise.

Very truly yours,

John Bannister
Executive Secretary
mr
enc

O.K.
69

ORGANIZATION REPORT

Full Name of the Company, Organization, or Individual

Consolidated Oil & Gas, Inc.

Post Office Address (Box or Street Address)

4150 East Mexico Avenue, Denver, Colorado 80222

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

corporation

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

Exploration, development and operation of oil and gas properties

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

N/A

If a foreign corporation, give (1) State where incorporated	(2) Name and post office address of state agent	(3) Date of permit to do business in state
Colorado	CT Corporation 14 North 18th Avenue Phoenix, Arizona	October 11, 1967
Principal Officers or Partners (if partnership) NAME	TITLE	POST OFFICE ADDRESS
Harry A. Trueblood, Jr.	President	4150 East Mexico Avenue Denver, Colorado 80222
L. Douglas Hoyt	Vice President and Secretary	"Same"
Harold C. Gutzjahr	Treasurer and Asst. Secretary	"Same"

DIRECTORS NAME	POST OFFICE ADDRESS
Harry A. Trueblood, Jr.	4150 East Mexico Avenue, Denver, Colorado 80222
L. Douglas Hoyt	4150 East Mexico Avenue, Denver, Colorado 80222
James D. Landauer	200 Park Avenue, Suite 2905, New York, New York 10017
Daniel T. O'Shea	1270 Avenue of the Americas, Suite 1270, N. Y., N. Y. 10020
John E. Price	P. O. Box 936, Fort Myers, Florida 33902
Theodor F. Rittenberg	31 Cherry Lane Drive, Englewood, Colorado 80110
Henry A. Wilmerding	19th Floor, 135 East 44th St., New York, N. Y. 10017
Alfred Gross	110 East 57th Street, New York, New York 10022
Donald W. Brink	375 Park Avenue, New York, New York
Lee J. Spiegelberg	120 East 56th Street, New York, New York 10022

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Secretary of the Consolidated Oil & Gas, 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 herein are true, correct and complete to the best of my knowledge.

L. Douglas Hoyt
Signature L. Douglas Hoyt, Secretary

January 19, 1968
Date



STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
Organization Report
File One Copy
Form No. 1

69

SUNDRY NOTICES AND REPORTS ON WELLS

1. Name of Operator Consolidated Oil & Gas, Inc.

2. OIL WELL GAS WELL OTHER (Specify) _____

3. Well Name East Boundary Butte 8, Well No. 23-11

Location Northeast of the Southwest Quarter Section

Sec. 11 Twp. 41 North Rge. 28 East County Apache Arizona.

4. Federal, State or Indian Lease Number, or lessor's name if fee lease Navajo Tribal 14-20-603-227

5. Field or Pool Name East Boundary Butte (Undesignated Upper Hermosa Reservoir)

6. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

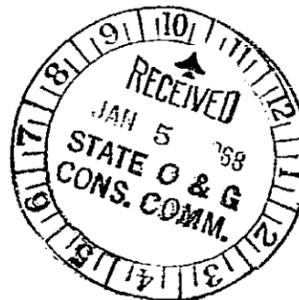
NOTICE OF INTENTION TO:			SUBSEQUENT REPORT OF:		
TEST WATER SHUT-OFF	<input type="checkbox"/>	PULL OR ALTER CASING	<input type="checkbox"/>	WATER SHUT-OFF	<input type="checkbox"/>
FRACTURE TREAT	<input type="checkbox"/>	DIRECTIONAL DRILL	<input type="checkbox"/>	FRACTURE TREATMENT	<input type="checkbox"/>
SHOOT OR ACIDIZE	<input type="checkbox"/>	PERFORATE CASING	<input type="checkbox"/>	SHOOTING OR ACIDIZING	<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>	CHANGE PLANS	<input type="checkbox"/>	ABANDONMENT	<input type="checkbox"/>
(OTHER)	_____			(OTHER) Documentation of Change of Operator	<input checked="" type="checkbox"/>

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

7. 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.)

Effective 7:00 a.m., October 12, 1967, the Operator of the above-described property changed to Consolidated Oil & Gas, Inc., from Shell Oil Company.

Address: Consolidated Oil & Gas, Inc.
4150 East Mexico Avenue
Denver, Colorado



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

Signed Joe G. Parkin Title Production Accountant Date January 3, 1968

Permit No. 69

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
Sundry Notices and Reports On Wells
File Two Copies
Form No. 25

**OPERATOR'S CERTIFICATE OF COMPLIANCE AND AUTHORIZATION
TO TRANSPORT OIL OR GAS FROM LEASE**

Federal, State or Indian Lease Number, or lessor's name if fee lease Navajo Tribal 14-20-603-227	Field East Boundary Butte	Reservoir Undesignated-Upper Hermosa
Survey or Sec-Twp-Rge 11, T41N-R28E	County Apache	State Arizona

Operator
Consolidated Oil & Gas, Inc.

ADDRESS ALL CORRESPONDENCE CONCERNING THIS FORM TO:

Street 4150 East Mexico Avenue	City Denver	State Colorado 80222
------------------------------------------	-----------------------	--------------------------------

Above named operator authorizes (name of transporter)
Four Corners Pipeline Co. (oil) and El Paso Natural Gas (gas)

Transporter's street address P. O. Box 1588	City Farmington	State New Mexico
-------------------------------------------------------	---------------------------	----------------------------

Field address
Same

Oil, condensate, gas well gas, casinghead gas

To transport **100** % of the **oil and gas** from said lease.

OTHER GATHERERS TRANSPORTING FROM THIS LEASE ARE AS FOLLOWS:

Name of gatherer	% transported	Product transported

Indicate whether or not this certificate is for a new lease. If not a new lease, indicate whether or not it is a change of operator, change of lease name, change of gatherer, or a consolidation or subdivision of leases and give effective date of change.

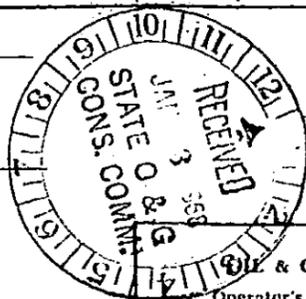
Change of Operator 10-12-67 - (Form 25 filed)

The undersigned certifies that the rules and regulations of the State of Arizona Oil & Gas Conservation Commission have been complied with in drilling and producing operations on this lease, except as noted above, and that the above transporter is authorized to transport the above specified percentage of the allowable oil or gas produced from the above described property, and that this authorization will be valid until further notice or until cancelled by the State of Arizona Oil & Gas Conservation Commission.

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Production Manager of the Consolidated Oil & Gas, 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 January 22, 1968 Signature *Wayne Rogers*

Date approved: Jan. 24, 1968
 STATE OF ARIZONA
 OIL & GAS CONSERVATION COMMISSION
 By: *John W. Bannister*
 Permit No. 69



STATE OF ARIZONA
 OIL & GAS CONSERVATION COMMISSION
 Operator's Certificate of Compliance & Authorization to
 Transport Oil or Gas from Lease
 File Two Copies
 Form No. 8



SHELL OIL COMPANY

POST OFFICE BOX 999
BAKERSFIELD, CALIFORNIA 93301

DEC 20 1967

Oil and Gas Conservation Commission
State of Arizona
1624 West Adams, Suite 202
Phoenix, Arizona 85007

Attention James R. Scurlock

Gentlemen:

We wish to advise that effective at the hour of 7:00 A.M., October 12, 1967, Consolidated Oil and Gas, Incorporated and Border Exploration Company, whose respective addresses are 4150 East Mexico Avenue, and 1224 Denver Club Building, Denver, Colorado, jointly purchased the Shell Oil Company interest in the East Boundary Butte lease.

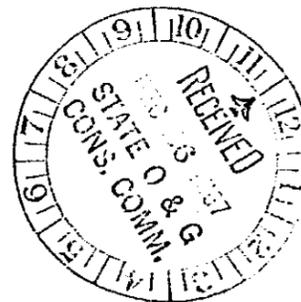
Production figures on East Boundary Butte will be furnished by Consolidated Oil and Gas for November and in the future.

Very truly yours,

J. S. Gragg
Division Office Supervisor
San Joaquin Division

cc - Consolidated Oil and Gas, Inc.
4150 East Mexico Avenue
Denver, Colorado

Border Exploration Company
1224 Denver Club Building
Denver, Colorado



O.K.
69



SHELL OIL COMPANY

POST OFFICE BOX 999
BAKERSFIELD, CALIFORNIA 93301

SEP 28 1967



Arizona Oil and Gas Conservation Commission
Room 202, 1624 West Adams
Phoenix, Arizona 85007

Gentlemen:

This refers to your letter of September 11, 1967, concerning Directive D-2-67 covering Gas-Oil Ratio Tests (Rule 301) and Capacity Tests of gas wells (Rule 401).

Our production in Arizona consists of two wells at East Boundary Butte and a part interest well at North Ton-Atin. Past production shows all three of these wells with a COR greater than 50,000 cubic feet of gas per barrel which would place them in the "Gas Well" category under the Commission's definition. As confirmation, a test was made on September 14, 1967, with production as follows:

	<u>Mcf/D</u>	<u>Oil E/D</u>	
East Boundary Butte			
No. 2 (23)	880	4	220,000
No. 23-11 (61)	1300	12	108,000
North Ton-Atin			
Mobil-Shell Navajo 1 - produces intermittently against line pressure and no test obtained. No oil or condensate produced over past year.			

Consequently, we consider these wells come under your Rule 401 and we take note that an open flow capacity determination by the back pressure test method is to be made in June of each year. Would you please send us your Form 18 for the reporting of the capacity tests.

Yours very truly,

M. J. Edwardson
for M. J. Edwardson
Division Production Manager
San Joaquin Division

March 24, 1967

Shell Oil Company
P.O. Box 1200
Farmington, New Mexico 87401

Gentlemen:

We note that in your gas production reports for January, 1967 you have shown the flaring or venting of 3,390 MCF of gas from the East Boundary Butte Field.

Would you please advise why it was/is necessary to flare or vent this quantity of gas; and if there is a way to prevent the flaring or venting of this product, would you please discuss what steps you are taking.

Your early reply would be appreciated.

Very truly yours,

John Bannister
Executive Secretary
mr

OK.

69



SHELL OIL COMPANY

Post Office Box 1200
Farmington, New Mexico

January 21, 1966

Oil and Gas Conservation Commission
State of Arizona
Room 202, 1624 West Adams
Phoenix, Arizona

Gentlemen:

We refer to your letter of January 13, 1966, advising of our responsibility under Rule 301 of the Rules and Regulations wherein a gas-oil ratio test for each producing well is called for on a semi-annual basis.

Our wells in Arizona are gas wells and therefore we wonder if Rule 301 applies. The wells do produce a very limited amount of condensate.

Very truly yours,

R. B. Lingel

R. B. Lingel
Division Office Supervisor

RBL:GC



O.K. 69

January 17, 1966

Shell Oil Company
1008 West Sixth Street
Los Angeles, California 90054

Attention: Right of Way Section *Certified Mail 461067*

Re: Travelers Indemnity Company Bonds S-218 and S-92

Gentlemen:

Enclosed please find an approved copy of Travelers Indemnity Company bond S-218 in the amount of \$25,000, wherein Shell Oil Company is Principal.

Please be advised that bond S-218 now replaces Travelers bond S-92 and that said bond S-92 may now be cancelled and Shell Oil Company now has no further obligation to this Commission under said bond S-92.

In reviewing bond S-218 the conditions and obligations expressed therein are "for the production of oil and gas and the installation of equipment necessary and incidental thereto for the operation and maintenance of such wells:". While this wording is satisfactory to the Commission, it must be understood by all parties that this bond does specifically cover the obligations of Shell Oil Company to comply with all rules and regulations of this Commission concerning not only production, but the drilling, completion, plugging and abandoning of any well by Shell Oil Company within the State of Arizona as well.

Should you have any questions would you please advise.

Very truly yours,

John Bannister
Executive Secretary
BK
enc

OK
cc: The Travelers Indemnity Co., 2200 N. Central, Phoenix, Ariz.
Mr. D.E. Clark, Manager, Land Department, Shell Oil Co.,
1008 W. Sixth Street, Los Angeles *Certified Mail 461068*

Files: 22 and 69

XXXXXXXXXXXXXXXXXX
XXXXX

July 15, 1964

Copies mailed to: Federal Insurance Company
C/O Tucson REalty & Trust Co.
Tucson, Arizona

Shell Oil Company
Shell Building
1008 West Sixth Street
Los Angeles 54, California

The Travelers Indemnity Company
Hartford, Connecticut

Attention: Right of Way Section

Re: Travelers Replacement
Oil & Gas Drilling Bond S-92
Your File: Bonds General
Property No. 287

Gentlemen:

In reply to Mr. Bruce C. Karr's letter of July 7, 1964, we accept your Travelers Indemnity Company Bond No. S-92 in the amount of \$10,000.00 as a replacement bond for your Federal Insurance Company Bond No. 7915611. It is understood that the replacement bond is to be concurrent with your discontinued bond and covers the following wells and locations:

Shell Oil Company - Navajo Tribal #2
SE/4 NW/4 Section 3 - T41N - R28E, Apache County
File No. 22

Shell Oil Company - Navajo Tribal #23-11
NE/4 SW/4 Section 11 - T41N - R28E, Apache County
File No. 69

Shell Oil Company - Franco Western Navajo #1
SW/4 NW/4 Section 22 - T41N - R28E
Apache County, Arizona
File No. 32

This letter constitutes our authority to cancel the existing bond No. 7915611 with the Federal Insurance Company.

If we may be of further assistance, please advise.

Yours very truly,

John Bannister
Executive Secretary
JB:mkc

Cc: The Travelers Indemnity Company
Federal Insurance Company

D.K.
✓

69

April 24, 1964

Shell Oil Company
P. O. Box 1200
Farmington, New Mexico

Attention: Mr. Joe E. Dozier, Jr.
Division Production Superintendent

Re: Monthly Individual Well Reports, Form PD-189 (Rev. 9/63)
East Boundary Butte 2, Lease 7, Sec. 3-T41N-R28E
— East Boundary Butte 23-11, Lease 8, Sec. 11-T41N-R28E
Franco Western, North Toh-Atin 1, Navajo Lease 2
Sec. 22-T41N-R28E

Gentlemen:

The captioned reports for the month of March have apparently gone astray. We would appreciate your sending us copies in duplicate at your very earliest convenience.

Your usual prompt handling of this matter will be greatly appreciated.

Very truly yours,

John Bannister
Executive Secretary

JB/mkc

Cc: Shell Oil Company *Red front this address*
Area Mailroom
1008 West 6th Street
P. O. Box 3397 Terminal Annex
Los Angeles 90054

Air Mail

D.K.



SHELL OIL COMPANY

Post Office Box 1200
Farmington, New Mexico

October 10, 1963

Subject: Cumulative Production
East Boundary Butte and
North Toh-Atin

Oil & Gas Conservation Commission
State of Arizona
Room 202 - 1624 West Adams
Phoenix 7, Arizona

Attention Mr. John K. Petty

Gentlemen:

With reference to your letter of October 3, 1963, we submit
subject data for the following wells:

	<u>Cumulative Oil (Bbls.)</u>	<u>Cumulative Gas (MCF)</u>
East Boundary Butte, Lease 7, Well No. 2	---	164,343 ✓
East Boundary Butte, Lease 8, Well No. 23-11	5,288 ✓	221,061 ✓
Franco Western, North Toh-Atin, Navajo Lease-2, Well No. 1	326 ✓	189,798 ✓
East Boundary Butte, Lease 5, Well No. 1 (Idle)	---	497

The above figures are totals through August, 1963, as the Monthly
Individual Well Reports for September are not yet available.

Yours very truly,

Joe E. Dozier, Jr.
Division Production Superintendent

EDH:OR

O.K.

CONFIDENTIAL

October 3, 1963

Mr. Joe E. Dozier, Jr.
Division Production Superintendent
Shell Oil Company
P. O. Box 1200
Farmington, New Mexico

Re: Monthly Individual Well Reports - Form PD-180 (Rev 8-59)
East Boundary Butte 2, Lease 7
— East Boundary Butte 23-11, Lease 8
Franco Western, North Toh-Atin, Navajo Lease 2, Well #2 326-119.70
East Boundary Butte 1, Lease 5 (1100) —

1026
1045 43
1045 43
1045 43
1045 43

Dear Mr. Dozier:

We appreciate very much your compliance with our request for monthly individual well reports on the subject wells.

In order that our records of oil, gas and helium production for the state of Arizona may be as accurate as possible; we now request that you forward to us the total cumulative production figure for each well through September, 1963. Thus as you send us your monthly production figures for each well, we will be able to keep the cumulative figures accurate.

Your prompt cooperation is appreciated.

Very truly yours,

John K. Petty
Acting Executive Secretary

JKP:mke

Cc: Shell Oil Company
Area Mailroom
1008 West 6th Street
Los Angeles 54, California

OK
✓
69



SHELL OIL COMPANY

Post Office Box 1200
Farmington, New Mexico

September 13, 1963

Subject: Monthly Individual Well Reports -
Form FD-189 (REV 8-59)
East Boundary Butte Leases 5, 7,
8 and Franco Western North
Tob-Atin Navajo Lease 2

Oil and Gas Conservation Commission
State of Arizona
Room 202, 1624 West Adams
Phoenix 7, Arizona

Attention Mr. John E. Petty

Gentlemen:

For our telephone conversation on September 11, 1963, we are forwarding subject data from inception of production through July, 1963. By copy of this letter we are requesting our Los Angeles Office to send you copies monthly, commencing with the August report. We note that you will also require the monthly gas disposition report for each field.

The subject Shell Oil Company report will be utilized in lieu of your Form G-7, requested in your letter dated August 7, 1963, per Chapter III, Article IX of the State of Arizona's General Rules and Regulations governing the oil industry.

The attached plot will show sites for the three producing wells in the following surveyed locations:

- East Boundary Butte 2 Lease 7 - 1500' east, 1500' south of the NE corner of Section 3, T. 41 N., R. 28 E.
- East Boundary Butte 13-11 Lease 8 - 1000' east, 1500' north of the NE corner of Section 11, T. 41 N., R. 28 E.
- Franco Western, North Tob-Atin Navajo Lease 2, Well #1 - 600' east, 1500' south of the NE corner of Section 22, T. 41 N., R. 28 E.
- East Boundary Butte 1 Lease 1 - Not producing and not shown on plot - 600' north, 600' west of the SE corner of Section 26, T. 41 N., R. 28 E.

All locations are from the Oil and Salt River Meridian Base Line.

69

Oil and Gas Conservation Commission

2

It is hoped that the above information will satisfy Shell's obligation to your office.

Very truly yours,

Joe E. Dosier, Jr.
Division Production
Superintendent

KRE:MFD

Attachments

cc - Area Mailroom, Los Angeles Office

January 31, 1963

Shell Oil Company
P. O. Box 1200
Farmington, New Mexico

Attention: Mr. Joe E. Dozier, Jr.

Gentlemen:

We have approved and return a copy herewith of Operator's Certificate of Compliance and Authorization to Transport Oil or Gas from Lease, Form P - 17, Commission's Numbers 1, 2 and 3 covering the movement of oil and/or gas from your East Boundary Butte No. 7 and Navajo No. 8, Apache County, Arizona.

Thanking you very much for your cooperation in this matter,
we are

Yours very truly,

N. A. Ludewick
Executive Secretary

encs 3

D.K.
69

January 25, 1963

Shell Oil Company
P. O. Box 1200
Farmington, New Mexico

Attention: Mr. Coleman

Gentlemen:

On January 24, 1963 we addressed a letter to you requesting that you furnish this commission Form P-17, Operator's Certificate of Compliance and Authorization to Transport Oil or Gas from Lease.

In checking some scattered files in this office, we have found the forms completed by you and returned to our office November 9, 1962.

We hope that our letter of January 24 did not cause you any undue concern.

Yours very truly,

N. A. Ludewick
Executive Secretary

NAL:hme

69

January 24, 1963

Shell Oil Company
P. O. Box 1200
Farmington, New Mexico

Attention: Mr. Coleman

Gentlemen:

On November 7, 1962 you were given emergency authorization by Mr. John K. Petty of this office to move production from your Navajo Tribal No. 23 - 11 Navajo Lease #8 via Four Corners Pipe Line Company. In his letter, Mr. Petty requested that you have executed this commission's Form P-17, Operator's Certificate of Compliance and Authorization to Transport Oil or Gas from Lease.

We have not received completed Forms P-17 as requested. In the event that you do not have a supply of these forms, we are enclosing a sufficient amount for your use.

If any of these leases have been connected by the El Paso Natural Gas Company for the movement of gas therefrom, this report must be filed for each such lease.

Thanking you, we are

Yours very truly,

N. A. Ludewick
Executive Secretary

NAL:hme
encs

OIL CONSERVATION COMMISSION

BOX 697-

120 EAST CHICAGO
3500 N. Central Avenue
AZTEC, NEW MEXICO
Phoenix, Arizona

NOTICE OF GAS CONNECTION

DATE November 26, 1962

THIS IS TO NOTIFY THE OIL CONSERVATION COMMISSION THAT CONNECTION FOR THE PURCHASE OF GAS FROM

THE Shell Oil Company
OPERATOR

East Boundary Butte * "A" 35-42-28
LEASE WELL UNIT S-T-R

Undesignated El Paso Natural Gas Company
POOL NAME OF PURCHASER

WAS MADE ON November 16, 1962 , FIRST DELIVERY November 16, 1962
DATE DATE

* This is a central delivery point, measuring gas from #2 East Boundary Butte-Navajo Lease #7 located Sec. 3-41N-28E and #23-11 Navajo Tribal-Navajo Lease #8, located Sec. 11-41N-18E.

INITIAL POTENTIAL

El Paso Natural Gas Company
PURCHASER

A. M. Rodriguez
REPRESENTATIVE

Chief Dispatcher
TITLE

CC: TO OPERATOR Denver and Farmington
~~OIL CONSERVATION COMMISSION - SANTA FE~~
F. N. WOODRUFF - EL PASO
B. D. ADAMS

FILE

File
with Shell & Boundary
Bottle
NE Arizona
Apache Co.

Mr. John K. Petty:

Our Production Department will forward to you shortly
under separate cover the gas analysis comparison as per your request.

City Band
Co. Band

D.K.
69



SHELL OIL COMPANY

Post Office Box 1200
Farmington, New Mexico

November 21, 1962

Subject: F.P.C. Docket No. C162-1037
East Boundary Butte Field

Oil and Gas Conservation Commission
State of Arizona
3500 North Central Avenue
Phoenix 12, Arizona

Attention Mr. John K. Petty

Gentlemen:

The Federal Power Commission is expected to set a date shortly for a hearing on Shell's application for a certificate to sell East Boundary Butte Area, Arizona (including North Toh-Atin) gas production to El Paso Natural Gas Company. It is possible that the hearing will be consolidated to include similar applications by Humble Oil & Refining Company and The Superior Oil Company for the sale of their gas production in Apache County, Arizona. It is our understanding that the hearing will be held before the end of the year; however, they must give thirty days' advance notice.

The contract price for pipeline quality gas is 17.7¢/MCF on a 15.025 psia pressure base, which is the same as for the Boundary Butte Field and Greater Aneth Area in San Juan County, Utah. This price was set by the F.P.C. as a condition for the sale of gas from these Utah fields. The original contract price was 20¢/MCF.

Shell Oil Company made application for a certificate to sell East Boundary Butte Area (including North Toh-Atin) gas production on March 7, 1962, in which we invoked temporary authority in order to expedite sale before a permanent certificate was received. Finally, after six months of waiting, we received, on September 5, 1962, a temporary authority with the price conditioned to 15¢/MCF from the 17.7¢/MCF contract price. In accepting the temporary certificate, the F.P.C. was informed that we would not accept a permanent certificate at 15¢/MCF without having an opportunity to justify the 17.7¢/MCF price.

O.K.

69

Oil and Gas Conservation Commission
State of Arizona

2

It would be helpful to our case if we could enlist the help of the State of Arizona in supporting the 17.7¢/MCF contract price, and stop a reduction to 15¢/MCF. It would be to their advantage for the following reasons.

East Boundary Butte being in the same geological and geographical province as gas in the Greater Aneth Area of Utah, Arizona should be entitled to the same price for gas being produced in both areas. Anything less would be discriminatory against the State of Arizona.

To have a depressed price of an already depressed gas price would discourage rather than encourage exploratory activity. To have a lower price so short a distance away from the Greater Aneth Area would eventually lead to placement of a low setting over the entire state. This would also tend to reduce the tax base and income of Arizona's citizens. Therefore, East Boundary Butte being in the same geological province as Aneth, an increased price would increase exploratory incentive, which in turn would increase development essential to the progress of the state. However, any reduction in the price freely contracted between buyer and seller in the East Boundary Butte Area would be detrimental to further oil and gas activity in the state of Arizona.

We hope you will either file a statement or have someone present it in person, supporting Shell's contracted 17.7¢/MCF price, supported by the reasons above stated. If you wish to participate, we request that we be given an advance copy of your statements.

If we may be of any further help, please do not hesitate to contact us.

Very truly yours,

F. W. Nantker
F. W. Nantker
Division Land Manager

DDG:GL

O.K.

69



SHELL OIL COMPANY

Post Office Box 1200
Farmington, New Mexico

NOV 9 1962

Oil and Gas Conservation Commission
State of Arizona
3500 N. Central, Suite 221
Phoenix 12, Arizona

Attention Mr. John K. Petty

Gentlemen:

Attached are executed copies, in triplicate, of Operator's Certificate of Compliance and Authorization to Transport Oil or Gas from Lease, Form No. P-17, to cover movement of oil and gas from our Navajo No. 8 Lease and gas from our East Boundary Butte No. 7 Lease. We trust you will find these Certificates in order and will grant the requested authorization.

We have requested Franco Western Oil Company to submit to you three executed copies of Form No. P-17 to cover movement of gas from the Navajo No. 2 Lease.

Very truly yours,

Joe E. Dozier, Jr.
Division Production
Superintendent

FJK:BG

Attachments

O.K.

69

November 7, 1962

Mr. Coleman
Shell Oil Company
P. O. Box 1200
Farmington, New Mexico

Dear Mr. Coleman:

This is to confirm emergency authorization for El Paso Natural Gas Company, P. O. Box 990, Farmington, New Mexico to purchase and move gas in their pipeline from the following wells located in Apache County, Arizona in the Four Corners area:

- 1 - Shell Oil Co. #2 East Boundary Butte Navajo Lease #7
Sec. 3, T41N, R28E
- 2 - Shell Oil Co. #23-11 Navajo Tribal - Navajo Lease #8
Sec. 11, T41N, R28E
- 3 - Franco Western #1 Navajo Lease #2
Sec. 22, T41N, R28E

This authorization is the result of a telephone conversation between you and this office this afternoon.

Yours truly,

John K. Petty
Petroleum Geologist

cc El Paso Natural Gas Company
P. O. Box 990
Farmington, New Mexico

O.K.

69

November 7, 1962

Mr. Coleman
Shell Oil Company
P. O. Box 1200
Farmington, New Mexico

Dear Mr. Coleman:

This is to confirm emergency authorization to move production from your Navajo Tribal No. 23 - 11 Navajo lease #8 in northeast Apache County, Arizona via Four Corners Pipe Line Company to Red Mesa Station, or to any other place they desire.

This authorization is the result of the telephone conversation between you and this office this afternoon.

Please execute one set of the P-17, Operator's Certificate of Compliance and Authorization to Transport Oil or Gas from Lease, and return to this office.

Also enclosed are 36 copies each of the following forms as well as 2 copies of our rules and regulations:

Producers Report of Gas Production
Monthly Producer's Report (Oil)
Well Status Report and Gas-Oil Ratio Tests
Gas Well Open Flow Potential Test Report
Reservoir Pressure Report

Ten copies of Application for Multiple Completion and Packer Leakage Test forms are enclosed for whenever applicable.

Fifty copies of Transporters and Storers Monthly Report were mailed to the Four Corners Pipe Line Company last Friday, November 2.

Yours truly,

John K. Petty
Petroleum Geologist

encs
cc Four Corners Pipe Line Company
Box 1388 - Farmington, New Mexico

69

Mr. Coleman
Shell Oil Company
Box #1200
Farmington, New Mexico

Dear Mr. Coleman:

~~Mr. Coleman:~~

~~This authorization~~

This is to confirm emergency authorization
to new production from your Navajo Tribal
Navajo lease # ^{in Northeast Apache County, Arizona}
No. 23-11A via Four Corners Pipeline Company
to Red Mesa Station.

This authorization is the result of
the telephone conversation between ~~Mr. Coleman~~
~~of your~~ you and this office this afternoon.

~~Transmitted~~

Please execute one set of the P-17,
Operator's Certificate of Compliance for authorization
to transport oil or gas from ~~the~~ ~~lease~~
~~at~~ this lease and return to this office

69

C.C. Four Corners Pipeline Company
Box #1588
Farmington, New Mexico

Form letter sent February 25, 1960 by instructions
of Petroleum Engineer, W.F. Hauls.

EE



SHELL OIL COMPANY

SHELL BUILDING
1008 WEST SIXTH STREET
LOS ANGELES 54, CALIFORNIA

TELEPHONE MADISON 5-7341

January 28, 1960

Mr. D. A. Jerome
Executive Secretary
Oil and Gas Conservation Commission
3500 North Central
Phoenix, Arizona

Dear Don:

During the course of our discussion in your office on January 21, 1960, you requested information on the oil and gas production from Shell wells in the East Boundary Butte Field. I have checked through the records in this office and they indicate the following production data:

Navajo Lease No. 5 Well No. 1 in Sec. 6, 41N, 29E.

<u>Year</u>	<u>Oil (Bbl.)</u>	<u>Gas (Mcf.)</u>	<u>Cummulative Gas (Mcf.)</u>
1954	-	4,856	4,856
1955	-	-	4,856
1956	-	-	4,856
1957	-	-	4,856
1958	-	-	4,856
1959	-	-	4,856

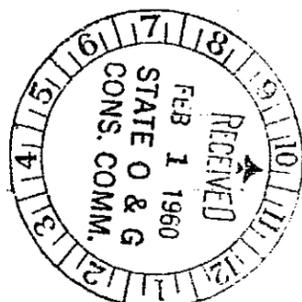
Navajo Lease No. 7 Well No. 2 in Sec. 3, 01N, 28E.

<u>Year</u>	<u>Oil (Bbl.)</u>	<u>Gas (Mcf.)</u>	<u>Cummulative Gas (Mcf.)</u>
1954	-	30,350	30,350
1955	-	26,258	56,608
1956	-	6,066	62,674
1957	-	-	62,674
1958	-	548	63,222
1959	-	-	63,222

Navajo Lease No. 8 Well No. 23-11 in Sec. 11, 41N, 28E

<u>Year</u>	<u>Oil (Bbl.)</u>	<u>Gas (Mcf.)</u>
1959	1,179	7,020

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Our records indicate that the latter well produced 248 barrels of oil and 3,061 Mcf gas in April 1959 and 931 barrels of oil and 3,959 Mcf gas in May 1959 and has subsequently remained shut-in.

Please express my thanks to Bill Maule for the data on oil and gas production for the fields of Arizona, transmitted in his letter of January 22, 1960.

It was a pleasure to become acquainted with both of you, and I trust I will have the opportunity of meeting with you in the near future.

Kindest regards,



Wm. L. Hobro

WLH:AA



January 22, 1960

Mr. W. L. Hobro
SHELL OIL COMPANY
1008 West 6th Street
Los Angeles 54, California

Dear Mr. Hobro:

Attached hereto, is a copy of our
Production Report, which we dis-
cussed with you.

If we can be of assistance, at any
time, do not hesitate to contact
us.

Sincerely yours,

William F. Maule,
Production Engineer

WFM:mar

Enclosure:

July 1, 1959

Shell Oil Company
705 West Municipal Drive
Farmington, New Mexico

Attention: R. R. Robison,
Division Production Manager

Dear Mr. Robison:

Thank you for your letter of transmittal of June 24,
1959 with its attached reports.

Your action is commendable in deferring further pro-
duction tests until the gas can be handled beneficially.
We would appreciate being informed when any change of
status occurs in relation to this well.

Very truly yours,

STATE LAND COMMISSIONER

By: Frederick C. Ryan,
Supervisor,
Oil and Gas Conservation

FCR:mb

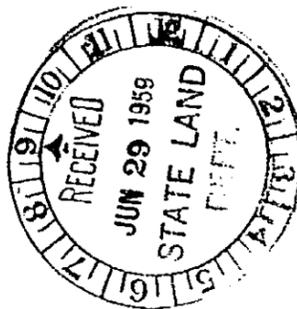


SHELL OIL COMPANY

10888

705 West Municipal Drive
Farmington, New Mexico

JUN 26 1959



Arizona State Land Department
State Office Building
Phoenix, Arizona

Attention Mr. Frederick C. Ryan

Gentlemen:

Please send to the above address Arizona Oil and Gas Conservation Commission Forms Nos. O. & G. 60 and O. & G. 65 for reporting oil and gas production in the State of Arizona.

Very truly yours,

G. E. Mojonier
Division Office Supervisor

*Send each ^{all} forms, including 20 copies: G-7
P-9*

*MAILED
6/30/59
H/S*

69
OIL'S FIRST CENTURY
-BORN IN FREEDOM
WORKING FOR PROGRESS



SHELL OIL COMPANY

705 West Municipal Drive
Farmington, New Mexico

JUN 24 1959

State Land Department
State of Arizona
Phoenix, Arizona

Attention Mr. Frederick C. Ryan, Supervisor,
Oil and Gas Conservation

Gentlemen:

Thank you for your letter of June 16, 1959, with which you transmitted an approved copy of Certificate of Compliance and Authorization to Transport Oil or Gas in conjunction with our East Boundary Butte No. 23-11. Regarding this well, we have temporarily deferred production testing because of the indications of high gas-oil ratio which we obtained during the short early testing period. We are in the process of attempting to obtain a gas market outlet for this area and we would prefer to await testing until the gas can be conserved, if such can be accomplished within a reasonable period of time.

We are attaching the May production report for the subject area. If we can be of any further help to you, we will be pleased to have you contact us.

Very truly yours,

R. R. Robison
Division Production Manager

Attachment

10858



69
OILS FIRST CENTURY
-BORN IN FREEDOM
WORKING FOR PROGRESS

June 16, 1959

Shell Oil Company
705 West Municipal Drive
Farmington, New Mexico

Attention: R. R. Robison,
Division Production Manager

Dear Mr. Robison:

Thank you for your cooperation in promptly furnishing the Drilling Report, logs, Completion Report and Well Status Report on your Navajo Tribal #23-11. This belated acknowledgment is not by design but due to my absence from the office.

Transmitted herewith is your approved copy of Certificate of Compliance and Authorization to Transport Oil or Gas from Lease, another copy of which is being forwarded to the McWood Corporation, Farmington.

We gathered here from Phil Johnson's report of his conversation with you and your people last month that it seemed to be your intent to make a prolonged production test of the well, particularly in light of Humble's experience with their E.#1. We will be especially interested in your monthly reports of oil and gas production for May as they reflect an average gas-oil ratio. We hope your well doesn't follow the E.1 pattern and necessitate its being shut in.

We would appreciate early receipt of your May production reports and any information or comments you might have on gas-oil ratio behavior.

Very truly yours,

STATE LAND COMMISSIONER

By: Frederick C. Ryan,
Supervisor, Oil and Gas Conservation

69
FCR:mb
Encls.



SHELL OIL COMPANY

705 West Municipal Drive
Farmington, New Mexico

MAY 6 1959

State Land Commissioner
State Land Department
State of Arizona
Phoenix, Arizona

Attention Mr. Frederick C. Ryan

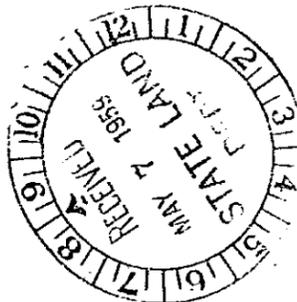
Dear Sir:

Attached are three executed copies of Operators Certificate of Compliance and Authorization to Transport Oil or Gas from Lease, Form No. P-17, as requested in your letter of April 30, 1959. We trust you will find this Certificate in order and will grant the requested authorization.

Very truly yours,

R. R. Robison
Division Production Manager

Attachment



7711

69
OIL'S FIRST CENTURY
-BORN IN FREEDOM
WORKING FOR PROGRESS

June 16, 1959

McWood Corporation
Box 1702
Farmington, New Mexico

Gentlemen:

Transmitted herewith is your copy of the approved authorization to transport oil or gas from Shell Oil Company Navajo Tribal #23-11, located in Section 11, Township 41 North, Range 28 East, Apache County, Arizona.

This authorization is valid until further notice to you by the Shell Oil Company, or until cancelled by the State Land Commissioner.

Very truly yours,

STATE LAND COMMISSIONER

By: Frederick C. Ryan,
Supervisor,
Oil and Gas Conservation

FCB:mb
Encl.

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OFFICE OF
State Land Department
STATE OF ARIZONA
Phoenix, Arizona
May 26, 1959

OBED M. LASSEN
STATE LAND COMMISSIONER

Shell Oil Company
705 West Municipal Drive
Farmington, New Mexico

Attention: R. R. Robison,
Division Production Manager

Dear Mr. Robison:

Reference is made to your Navajo Tribal #23-11, located in Section 11, Township 41 North, Range 28 East, Apache County, Arizona. This well, according to an information copy of a U.S.G.S. Sundry Report, was completed on April 25, 1959. Emergency authorization to move production from the well was given orally by this office on April 30th as the result of a telephone request from Mr. Schuurman of your T. & S. - Crude and Products Division, Los Angeles.

Approval of your Certificate of Compliance and Authorization to Transport Oil or Gas from Lease, dated May 5th, is presently being held in abeyance pending receipt of required reports upon which to intelligently base such action. Presently due are reports called for by Rules 119 and 301, e.g. P-7 and P-9.

Your prompt action in executing these and any others reflecting subsequent testing is requested and appreciated.

Very truly yours,

STATE LAND COMMISSIONER

By: Frederick C. Ryan,
Supervisor,
Oil and Gas Conservation

FCR:mb

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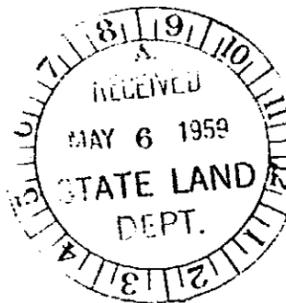
SHELL OIL COMPANY

SHELL BUILDING
1008 WEST SIXTH STREET
LOS ANGELES 54, CALIFORNIA

7623

TELEPHONE MADISON 5-7341

May 4, 1959



Mr. Fred C. Ryan
State Land Board
State Capitol Building
Phoenix, Arizona

Dear Mr. Ryan:

This confirms telephone conversation you had with our Mr. Schuurman regarding the completion of our East Boundary Butte 23-11 Well. This well is located in the N.E. quarter of the S.W. quarter, Section 11, T. 41 N., R. 28 E., G. and S.R.M., Apache County, Arizona.

We indicated to you that we were very anxious to move some production from the lease to Four Corners Pipe Line Company's Red Mesa Station in Utah, and you were kind enough to give us verbal approval effective April 30, 1959.

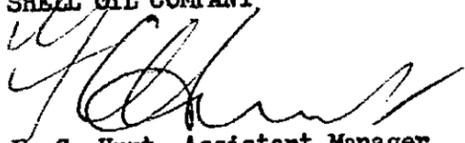
In the meantime, you would mail to our Mr. R. R. Robison at Farmington, New Mexico, the necessary forms for execution by us i.e., "Certificate of Compliance" and "Authority to Transport, etc."

As we told you over the phone, the McWood Corporation of Abilene, Texas, are presently buying the production from us at the lease and moving it to Red Mesa, Utah, for further pipe line movement.

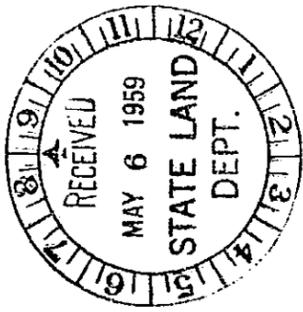
We certainly appreciated your prompt action in this matter.

Yours very truly,

SHELL OIL COMPANY


F. C. Hunt, Assistant Manager
T. & S. - Crude and Products

HES:pt



[Faint, illegible text, possibly a letter or document body]

April 30, 1959

Shell Oil Company
705 West Municipal Drive
Farmington, New Mexico

Attention: R. E. Robison,
Division Manager

Dear Mr. Robison:

This is to confirm emergency authorization to move production from your Navajo Tribal No. 23-11 via McWood Corporation to Red Mesa Station. This authorization is the result of telephone conversation between Mr. Sherman of your Los Angeles office and this office this afternoon.

Transmitted herewith are three sets of form No. P-17, "Operator's Certificate of Compliance and Authorization to Transport Oil or Gas from Lease".

Please execute one set and return to this office.

Very truly yours,

STATE LAND COMMISSIONER

By: Frederick C. Ryan,
Supervisor,
Oil and Gas Conservation

FCR:mb
Encls.

COPY OF LETTER DICTATED OVER TELEPHONE BY MR. COLEMAN OF
FARMINGTON, N. M.

Shell Oil Company
705 W. Municipal Drive
Farmington, New Mexico

4-30-59

Att: Mr. R. R. Robison, Division Manager

Dear Mr. Robison:

This is to confirm emergency authorization to move production
from your Navajo Tribal No. 23-11 by McWood Corp. to Red Mesa
Station.

This authorization is the result of the telephone conversation
between Mr. Sherman of your Los Angeles office and this office
this afternoon.

Transmitted herewith are 3 sets of forms P-17, Operators
Certificate of Compliance for Authorization to Transport
oil or gas ~~ga~~ from lease. Please execute one set and return
to this office.

State Land Commissioner

Frederick C. Ryan

69

April 27, 1959

Shell Oil Company
705 West Municipal Drive
Farmington, New Mexico

Attention: R. S. MacAlister, Jr.,
Division Exploitation Engineer

Dear Mr. MacAlister:

At the request of Mr. W. L. Hobro of the Los Angeles office, we are inclosing copies of the necessary forms to be furnished to this office with regard to your drilling operations in Arizona.

If you are in need of any additional forms, please let us know and we will be glad to forward them to you.

Very truly yours,

STATE LAND COMMISSIONER

By: Frederick C. Ryan,
Supervisor,
Oil and Gas Conservation

mb
Encls.
cc - W. L. Hobro

69

April 22, 1959

Shell Oil Company
1008 W. 6th
Los Angeles 54, California

Attention: W. L. Hobro

Dear Mr. Hobro:

In accordance with our telephone conversation today, I am transmitting herewith a copy of the current statewide rules and regulations.

I have checked the records for the name of R. H. MacAlister of the Farmington office as you requested, in order to ascertain whether or not his name has been made of record as Arizona Agent for your Company, and find that his name does not appear as a representative for your organization.

On March 5, 1959, we wrote to a Mr. R. S. MacAlister, Jr., Division Exploitation Engineer requesting our form to be filled out and returned to this office. A verifax copy of this returned form is inclosed for your information. However, if you wish his name to be made of record, then I would suggest that the new Organization Report be completed and returned to us for filing.

A supply of the new forms will be mailed to Mr. MacAlister just as soon as they have been printed.

Best regards.

Very truly yours,

(Mrs.) Muriel R. Bates,
Secretary to
Frederick C. Ryan

mb
Encl.

69

March 12, 1959

Shell Oil Company
705 West Municipal Drive
Farmington, New Mexico

Attention: F. W. Nantker,
Division Land Manager

Dear Mr. Nantker:

Thank you for your letter of March 10, 1959 and the inclosed Organization Report. The information contained is most helpful and exactly what we wanted.

I hope to be in Farmington sometime in the next sixty days and shall look forward to meeting you and your associates.

Very truly yours,

STATE LAND COMMISSIONER

By: Frederick C. Ryan,
Supervisor,
Oil and Gas Conservation

FCR:mb

69



SHELL OIL COMPANY

705 West Municipal Drive
Farmington, New Mexico

March 10, 1959

State Land Department
State of Arizona
Phoenix, Arizona

Attention Frederick C. Ryan, Supervisor, Oil and Gas Conservation

Gentlemen:

Pursuant to our telephone conversation of March 10, 1959 regarding your letter of March 5, 1959, we have filled out your O & G form No. 50 "Organization Report" reflecting the present management of the Farmington Exploration and Production Division as requested by you.

Primarily, responsibility for exploration in Arizona south of the Colorado River lies with the Farmington Exploration Division, and the Farmington Production Division is charged with all production problems arising in the State of Arizona. You have advised us that you are aware of our Los Angeles management organization which is headed by Mr. S.F. Bowlby, Vice President, and Mr. H. M. Gullickson is the Assistant Secretary.

The corporate notice address is 1008 West Sixth Street, Los Angeles 54, California. Matters of an operational nature are handled by the Farmington Division office.

Very truly yours,

F. W. Nantker
Division Land Manager

Enclosure

March 5, 1959

Shell Oil Company
705 West Municipal Drive
Farmington, New Mexico

Attention: R. S. MacAlister, Jr.,
Division Exploitation Engineer

Dear Mr. MacAlister:

We are transmitting herewith your copy of the receipt in the amount of \$25.00 covering the permit fee for a well to be drilled in Section 11, Township 41 North, Range 28 East, Apache County, Arizona. We are also inclosing a copy of "Notice of Intention to Drill New Well" which has now been approved by the State Land Commissioner and constitutes your Permit No. 69 for the subject well.

If you have any questions, or if we can be of service to you in the future, please do not hesitate to call on us.

Very truly yours,

STATE LAND COMMISSIONER

By: Frederick C. Ryan,
Supervisor,
Oil and Gas Conservation

P.S. We are inclosing our O&G form #50, "Organization Report", which is to be filled out and returned to this office. Thank you.

mb
Encls.

89

