

CONSOLIDATED #1-1 NAVAJO  
SW SW 1-41N-28E APACHE CO. 528

P-M

sl

COUNTY Apache AREA 25 mi. Shiprock, NM LEASE NO. 14-20-603-226

WELL NAME Consolidated Oil & Gas Incorporated #1-1 Navajo

LOCATION SW SW SEC 1 TWP 41N RANGE 28E FOOTAGE 825' FSL 670' FWL  
ELEV 5698 GR 5710 KB SPUD DATE 2-10-70 STATUS P&A TOTAL DEPTH 6156'  
COMP. DATE 3-3-70

CONTRACTOR Araphoe Drilling Company

CASING SIZE	DEPTH	CEMENT	LINER SIZE & DEPTH	DRILLED BY ROTARY	<u>x</u>
<u>8 5/8</u>	<u>512</u>	<u>250 SK</u>	<u>NS</u>	DRILLED BY CABLE TOOL	
				PRODUCTIVE RESERVOIR	
				INITIAL PRODUCTION	<u>P&amp;A</u>

FORMATION TOPS	DEPTHS	SOURCE		REMARKS
		L.L.	E.L.	
Shinrump	0-1904	X	X	
Coconino	2355			
Hermosa	4300			
Upper Ismay	5048			
Lower Ismay	5126			
Desert Creek	5170			
Akah	5358			
Molas	5940			
Miss. TD	6156			

ELECTRIC LOGS	PERFORATED INTERVALS	PROD. INTERVALS	SAMPLE LOG
<u>IES-2;BHC/GR-2</u> <u>Amplitude</u>	<u>NA</u>	<u>NA</u>	SAMPLE DESCRP. <u>x</u> SAMPLE NO. <u>1615*</u> CORE ANALYSIS _____ DSTs _____ <u>*Tucson 2571</u>
REMARKS _____			APP. TO PLUG <u>x</u> PLUGGING REP. <u>x</u> COMP. REPORT <u>x</u>

WATER WELL ACCEPTED BY \_\_\_\_\_

BOND CO. United States Fidelity & Guaranty BOND NO. 31380-13-99-68  
 BOND AMT. \$ 25,000 CANCELLED \_\_\_\_\_ DATE 1-19-68  
 ORGANIZATION REPORT \_\_\_\_\_  
 FILING RECEIPT 2862 LOC. PLAT x WELL BOOK x PLAT BOOK x  
 API NO. 02-001-20126 DATE ISSUED 1-15-70 DEDICATION W/2 SW/4

PERMIT NUMBER 528



**WELL COMPLETION OR RECOMPLETION REPORT 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: Consolidated Oil & Gas, Inc. Address: 1860 Lincoln Street, Denver, Colo. 80203

Federal, State or Indian Lease Number or name of lessor if fee lease: Tribal 14-20-603-226 Well Number: 1-1 Field & Reservoir: East Boundary Butte

Location SW SW Sec. 1, T41N, R28E County: Apache

Sec. TWP-Range or Block & Survey: Section 1, Township 41North, Range 28 East

Date spudded: 2/10/70 Date total depth reached: 3/3/70 Date completed, ready to produce: P&A 3/3/70 Elevation (DE, RKB, RT or Gr.) feet: 5710' Elevation of casing hd. flange feet: 5598'

Total depth: 6156' P.B.T.D.: - - - Single, dual or triple completion?: - - - If this is a dual or triple completion, furnish separate report for each completion.

Producing Interval (s) for this completion: Plugged and Abandoned Rotary tools used (interval): All Cable tools used (interval): - - -

Was this well directionally drilled?: No Was directional survey made?: No Was copy of directional survey filed?: - - - Date filed: - - -

Type of electrical or other logs run (check logs filed with the commission): Induction-Electric; Amplitude Log; BHC Sonic w/Gamma-Ray Date filed: 3/11/70

CASING RECORD

Casing (report all strings set in well—conductor, surface, intermediate, producing, etc.)						
Purpose	Size hole drilled	Size casing set	Weight (lb./ft.)	Depth set	Sacks cement	Amt. pulled
Surface	12-1/4"	8-5/8"	24#	512'	250 sx	none

TUBING RECORD

LINER RECORD

Size	Depth set	Packer set at	Size	Top	Bottom	Sacks cement	Screen (ft.)
in.	ft.	ft.	in.	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
P & A			P & A (See Plugging Record)	

INITIAL PRODUCTION

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

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

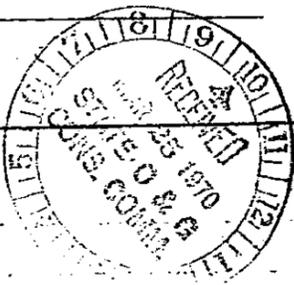
Tubing pressure	Casing pressure	Cal'ed rate of Production per 24 hrs.	Oil	Gas	Water	Gas-oil ratio
			bbls.	MCF	bbls.	

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

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Petroleum Engineer 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: March 19, 1970

Signature: D. E. Smink  
D. E. Smink



Permit No. 528

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

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

FORMATION	FORMATION		DST. #	DESCRIPTION, CONTENTS, ETC.	GEOLOGIC MARKERS	
	Top	Bottom			NAME	NEAR. DEPTH
Desert Creek	5144'	5199'	1	Fluid Recovery 180' HGCM. 450' HG&OCM 180' HO&SWGCM 180' SO&HMCSW 900' SO&GCSW 540' VSO&GCSW 2430' total recovery Sampler: Rec. 2100 cc fluid (2000 cc wtr. -R-w =0.38 at 65° F, & 100 cc oil) + 0.8 cfg. Pressures: IH=2464, IF=133/467, ISI=1473, FF=493/1049, FSI=1354, FH=2425. DST. # 2: 10:25 PM: Opened tool (30 min.) - weak to good blow in 4 min. 10:55 PM: Closed tool (32 min.) 11:27 PM: Opened tool (180 min.) - very weak to good blow at 11:37 PM, decreased to very weak at 12:00 Midnight, closed tool at 2:27 AM (very weak at end). No gas to surface. Started out at 3:27 AM. Recovered: 90' highly sulfur - water-cut mud 510' black sulfur water -600 total Pressures: HP 2492/2492 FP 132-132/132-308 SIP 1274/1274	Shinarump Coconino Hermosa Upper Ismay Lower Ismay Desert Creek Akah Molas total depth	1904' 2355' 4300' 5048' 5126' 5170' 5358' 5940' 6156'
	5209'	5250'	2	Recovered: 100 psi. zero gas / and zero oil, and 2050 cc blk. sulfur water (sp - 1.045), R <sub>w</sub> =0.20 at 65° Chloride: 24,240 ppm.		

NO CORES WERE TAKEN

UNITED STATES  
 DEPARTMENT OF THE INTERIOR  
 GEOLOGICAL SURVEY



OFFICE 325-9553

MOBILE PHONE 325-0412

HOME 325-6534

**W. D. STRICKLIN**

OIL, GAS AND MINERAL EXPLORATION  
200 PETROLEUM PLAZA BUILDING  
FARMINGTON, NEW MEXICO 87401

CONSULTING PETROLEUM  
GEOLOGIST

REPLY TO: P.O. BOX 1543

WELL REPORT  
CONSOLIDATED OIL & GAS  
#1-1 NAVAJO  
APACHE COUNTY, ARIZONA

LOCATION:

670' W & 825' S, Section #1, Township 41 North, Range 28 East,  
Apache County, Arizona.

ELEVATION:

5698' Ground, 5710' KB (estimated).

CONTRACTOR:

Arapahoe Drilling Company, T-32 National Rotary Tools, Rig #1.  
Albert Frank - Tool Pusher.

SPUD & COMPLETION DATE:

Well Commenced: February 9, 1970

Plugged & Abandoned: March 3, 1970

ELECTRICAL SURVEYS:

Schlumberger: Induction Electrical from 512' to 6151'.

Schlumberger: Borehole Compensated Sonic-Gamma Ray from  
4900' to 6147'.

Schlumberger: Amplitude Log from 4900' to 6139'.

FORMATION TOPS:

<u>TRIASSIC</u>	<u>DEPTH</u>	<u>GROUND LEVEL DATUM</u>
Shinarump	1904'	+3806
<u>PERMIAN</u>		
Coconino	2355'	+3355
<u>PENNSYLVANIAN</u>		
Hermosa	4300'	+1410
Upper Ismay	5048'	+ 662
Lower Ismay	5126'	+ 584
Desert Creek	5170'	+ 540
Akah	5358'	+ 352
Molas	5940'	- 230
<u>MISSISSIPPIAN</u>		
T.D.	6047'	- 337
	6156'	- 446

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DRILL STEM TEST DATA:

Halliburton Testers

D.S.T. #1 - 5143.7' - 5199.0'

Note: No correction on strap.

I.H.H.	2464.3
I.F.P.	133.3 - 466.7 (30")
I.S.I.P.	1473.4 (30")
F.F.P.	493.3 - 1049.1 (180")
F.S.I.P.	1354.1 (60")
F.H.H.	2424.7
B.H.T.	103° F.

Opened tool with fair blow at 7:47, increased to good blow at 7:50. Closed tool at 8:17, opened tool at 8:50, with weak blow increasing to good blow at 8:55. Gas to surface at 11:07 (2' - 12") estimated flow 2MCF. Closed tool at 11:50. Trip out at 12:50. Recovered: 180' of HGCM, 450' of HG & OCM, 180' of HO & SLI G & WCM, 180' of SO & GC muddy XW, 900' of SO & GC XW, 540' of V/SO & GCXW.  
Total Recovery: 2430'.

Sampler Data:

Pressure: 650 PSI  
Recovery: 0.807 Cu. Ft.  
100 cc oil  
2000 cc water  
2100 cc total fluid  
Sg: 1.03 H<sub>2</sub>O  
Rw: 0.38 @ 65° F. (est.)  
Chlorides: 14,365 MPL

D.S.T. #2 - 5209.65' - 5250.0'

Note: No correction on strap.

I.H.H.	2433.8
I.F.P.	87.3 - 87.3 (30")
I.S.I.P.	1264.1 (30")
F.F.P.	131.0 - 305.7 (180")
F.S.I.P.	1264.1 (60")
F.H.H.	2433.8
B.H.T.	105° F.

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DRILL STEM TEST DATA: (Cont'd.)

Opened tool at 10:25 with weak blow, increasing to good blow at 10:29. Closed tool at 10:55. Opened tool at 11:27 with very weak blow, increasing to good blow at 11:37, decreasing to very weak blow at 12:00. Closed tool at 2:27. Trip out at 3:27. Recovered: 90' of high sulphur cut mud, 510' cf black sulphur water.  
Total Recovery: 600'.

Sampler Data:

Pressure: 100 PSI  
Recovery: No gas  
          No oil  
          2050 cc sulphur water  
Sg: 1.045 H<sub>2</sub>O  
Rw: 0.20 @ 65° F. (est.)  
Chlorides: 24,240 MPL

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SAMPLE DESCRIPTION:

- 2100' - 2140' 100% Brick red & maroon slty shale, sli calc, w/some sdy in pt, w/occ pc lt green, bentonitic shale scatt thru-out mtx. Tr/lt gry, fn xlyn, hd, tite, limestone, tr/v/fngr uncons sandstone, WS & R, clear qtz xls.
- 2140' - 2150' 100% red & maroon slty sh, as above, w/inc in uncons fngr ss, & occ cse gr qtz xl in mtx.
- 2150' - 2160' 20% blk, brittle coal, v/carbonaceous, 30% red & maroon slty shale as above, w/50% lavender dolomite v/slty, hd-tite, fn xlyn.
- 2160' - 2180' 20% blk, coal, v/carb, as above, 80% red and maroon slty shale, as above, w/tr lavender dolomite. Abnt pyrite xls scatt thu mtx.
- 2180' - 2260' 100% red & maroon slty shale, as above, tr/blk carb shale, tr/red opaque chert, w/occ pc lt gry to white, fn xlyn limestone. Tr/uncons fngr ss as above
- 2260' - 2310' 100% red slty shale, as above, w/tr sandstone, Coconino? Samples are v/poor. SS: white, fngr, P-cons, non calc, clean, WS & R, clear XLS.
- 2310' - 2340' 100% red slty shale, as above, w/abnt olive green bentonitic shale. Tr/uncons SS as above, w/occ cse gr qtz xl scatt thu mtx. (Poor samples).
- 2340' - 2360' 90% red & maroon slty shale, as above, w/10% SS, white, fn-med gr, firm, calc, WR & S, clear Xls, w/occ cse gr qtz xl in mtx.
- 2360' - 2410' Section as above, w/abnt lt grn-gry sandy slt stn scatt thu out mtx.
- 2410' - 2440' 80% red & maroon slty sh as above, bem v/slty w/10% SS white (slty in pt) fngr, v/calc, firm, as above. Section bem v/slty.
- 2440' - 2480' 40% SS, lt red, med gr, sli calc, cons, firm, 50% SH, as above, w/some lt grn & gry, slty in pt, calc, bentonitic in pt, w/10% uncons, carmel colored, v/cse gr qtz xls scatt thu out mtx.
- 2480' - 2500' 40% shale, 30% SS, as above, w/30% uncons qtz xls, w/occ pc cream L.S. (Cavings?).

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SAMPLE DESCRIPTION: (Cont'd.)

- 4000' - 4040' 100% maroon & chocolate brn shale, predom maroon, micro-mic, non calc, slty in pt, w/some lt green bentonitic shale scatt thru out mtx. Occ pc lt gry, v/fn xlyn, L.S. hd-sharp, tr/pyrite xls, occ pc dk gry, bentonitic, micaceous shale.
- 4040' - 4090' 100% shale, as above, section bem slty w/tr white sucrossic limestone.  
Note: Near perfect fossil - Gastropod? - olive color w/secondary calcite in septia. (40-50 sample).
- 4090' - 4130' 100% shale, as above, w/occ pc lt red-opaque chrt in mtx.
- 4130' - 4190' 100% shale, as above, w/tr gry, fn xlyn limestone.
- 4190' - 4300' 100% maroon & chocolate brn shale, w/abnt lt green bentonitic SH, w/tr blk carb shale, occ cse gr qtz xl in mtx. Occ pc lt gry, fn xlyn L.S. hd-sharp.
- 4300' - 4340' 100% shale, as above, w/inc in lt gry-dk gry, fn xlyn limestone.
- 4340' - 4380' 90% shale, as above, w/10% gry-lt gry, fn xlyn, hd, sharp, limestone.
- 4380' - 4400' 100% shale, as above, w/tr L.S. as above, w/ abnt lt green bentonitic shale. Tr/lt red chert.
- 4400' - 4430' 90% red & brn shale, as above, bem slty - w/10% dk gry & white, fn xlyn limestone. Abnt "chalky" mtl, bentonitic.
- 4430' - 4450' 100% Shale as above, v/slty, w/tr LS, as above, w/abnt. cse gr qtz xls sett thru-out mtx, tr lt red chert
- 4450' - 4470' 60% Limestone, beach white, "chalky", mineral flu, no cut, fn xlyn. 40% shale as above.
- 4470' - 4480' 30% L.S., as above, white "chalky", w/some sucrossic, 70% SH predom red, w/abnt dk gry to gry bentonitic shale. Occ pc orange chrt. Tr/anhydrite.

SAMPLE DESCRIPTION: (Cont'd.)

- 4480' - 4500' 10% L.S., as above, & 90% SH, as above. No hydrocarbon fluence. Tr/cse gr, p-cons, sli calc, sandstone.
- 4500' - 4560' 100% SH, predom lt gry, w/hairline maroon stks, bentonitic, soft, w/abnt olive shale scatt thru-out. Tr/limestone as above. Tr/Anhydrite.
- 4560' - 4650' 100% Shale, lt gry & red, predom, bem slty in pt, strong tr/gry, fn xlyn, L.S. as above. Tr/orange chrt. Samples are not very good. Vis is 30 now but should be around 36 soon.
- 4650' - 4750' 100% Shale, as above w/occ pc orange & lt gry opaque chrt. Abnt lt green bentonitic Sh. Samples are not representative or we have cut a fault. Tr/lt gry, v/fngr, hd, sharp limestone.
- 4750' - 4760' 20% L.S., lt gry, fn xlyn, hd, sharp, no  $\phi$ , mineral flu, 80% red & gry shale as above, samples are much improved.
- 4760' - 4770' 30% L.S. and 70% SH, as above.
- 4770' - 4790' 40% L.S. and 60% SH, as above.
- 4790' - 4860' 50% L.S. and 50% SH, as above. L.S. lt gry, fn xlyn, "bio-clastic", no porosity, mineral flu, No Sho, (Lower Hermosa?) Occ pc lt gry & orange opaque chert. SH, red & gry bentonitic as above, bem slty in pt.
- 4860' - 4870' 70% Limestone, lt gry, fn xlyn, hd tite, no  $\phi$ , w/mineral flu, no hydrocarbon, as above. 30% Shale as above.
- 4870' - 4910' 50% LS & 50% SH, as above. Occ pc lt gry opaque chrt.
- 4910' - 4930' 30% Limestone, as above, w/70% predom gray shale, occ pc lt gry opaque chrt, & scatt cse gr qtz xls.
- 4930' - 4940' 40% L.S. & 60% SH, as above.
- 4940' - 4980' 30% L.S. & 70% SH, as above, occ pc orange chrt. No  $\phi$ , no sho.

SAMPLE DESCRIPTION: (Cont'd.)

- 4980' - 4990' 20% L.S. and 80% SH, As above.
- 4990' - 5000' 30% L.S. and 70% SH, as above
- 5000' - 5030' 50% L.S. and 50% SH, as above.
- 5030' - 5060' 40% L.S. & 50% SH, as above.
- 5060' - 5090' 30% L.S., lt gry, to beach white, "Chalky in pt", fn xlyn, hd, dense, no  $\phi$ . 70% SH, red & gry, red is slty in pt & the gry is v/ bentonitic, occ pc lt gry opaque chrt.
- 5090' - 5150' 40% L.S. & 60% SH, As above, w/heavy tr/gry & orange chrt. Occ cse gr qtz xl in mtx.  
No Crinoids as yet.
- 5150' - 5160' 20% L.S., lt gry, dnse, fn xlyn, as above.  
80% gry & red slty SH, as above.
- 5160' - 5170' 40% L.S., lt gry (Note: Hairline secondary calcite filling is some of the larger fragments). fn xlyn, some w/PPP & v/faint cut.
- 5170' - 5180' 50% L.S., as above w/yellow flu & excellent cut, 50% SH, as above.
- 5180' - 5190' 70% L.S., as above, yellow flu & fair cut, bem dnser. 30% SH, as above.
- 5190' - 5200' 90% L.S., lt gry, gry, dull yellow flu & poor cut, fn xlyn, dnse, low  $\phi$ , 10% shale, as above.  
Circ: 5% sample has bri yellow flu w/excellent cut. Abnt Calcite secondary appears to be v/tite w/only scatt PPP.  
D.S.T. #1 5143.70 - 5199.0.
- 5200' - 5220' (After D.S.T.) 40% LS, lt gry & cream, v/fn xlyn, hd, sharp, dnse, w/mineral flu, w/tr LS, lt gry, bioclastic, as above, w/yellow flu & excellent cut (cavings). 60% gry & red slty shale, as above. Tr/pyrite xls, & occ cse gr qtz xl scatt thru-out mtx.  
Samples are not representative as yet.
- 5220' - 5230' 60% LS, lt gry-dk gry, fn xlyn min flu, hd, dnse, no  $\phi$ , some w/indistinct focs frags.  
40% SH, red & gry, as above. Scatt pyrite xls.

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SAMPLE DESCRIPTION: (Cont'd.)

- 5230' - 5240' 70% LS, predom cream-beach white, bioclastic, indist foss frags, fn xlyn, fair  $\phi$ , no hydrocarbon. 30% SH, as above.
- 5240' - 5250' Core sample - 1' 30"  
100% LS, lt gry-beach white, "chalky". Good  $\phi$ , & odor, bri yellow flu & good cut, indistinct fossil frags
- 5250' - 5270' 70% Limestone, lt gry-beach white, fn xlyn, w/scatt PPF, predom dnse, 30% red & gry slty shale, as above. Occ pc iron pyrite & cse gr qtz xl scatt thu mtx.
- 5270' - 5300' 80% L.S., as above & 20% SH w/tr blk splintery lower D.C. shale.
- 5300' - 5310' 30% dk gry, SH, v/slty, calc, firm, lower D.C.  
70% LS, as above
- 5310' - 5350' 50% dk gry (greenish tint) v/slty & calc shale.  
50% LS, as above, tr brick red shaley slt stn. Cavings?
- 5350' - 5380' 60% dk gry, v/slty shale, calc, firm. 40% LS gry-dk gry, v/fn slyn, hd, dnse, w/tr/lt red slt stn, cavings? Occ pc lt gry opaque chrt.
- 5380' - 5390' 80% LS, lt gry, fn xlyn, w/indistinct foss frags, dnse, hd. 20% gry & red SH, as above.
- 5390' - 5430' 90% LS & 10% SH, as above. No Sho.
- 5430' - 5440' 80% LS & 20% Shale, as above, tr dk gry chrt & occ pyrite xl.
- 5440' - 5450' 60% LS, gry, dk gry, fn xlyn, dnse, sharp, w/mineral flu, No Sho, 40% SH, dk gry "Splintery", w/some v/slty w/abnt brick red shaley slt stn.
- 5450' - 5460' 70% LS, lt gry, v/fn xlyn w/some indistinct foss frags, dnse, sharp. 30% SH, as above. Scatt buff opaque chrt
- 5460' - 5490' 60% LS & 40% SH, as above, tr/blk, carbonaceous v/slty, shale.
- 5490' - 5520' 70% LS & 30% SH, as above.
- 5520' - 5530' 60% LS, lt gry, fn xlyn, dnse, sharp, no sho, 40% SH, as above, w/abnt brick red slt stn, cavings.

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SAMPLE DESCRIPTION: (Cont'd.)

- 5530' - 5580' 70% LS, as above, w/30% SH, predom dk gry, slty in pt.
- 5580' - 5590' 60% LS & 40% SH, as above, occ pc lt gry, opaque chrt.
- 5590' - 5650' 80% LS, lt gry-beach white, indistinct foss frags, fn xlyn, No Sho. 20% SH, as above.  
Note: Abnt red slt stn & SH in samples - Cavings?
- 5650' - 5660' 70% LS & 30% SH, As above.
- 5660' - 5680' 50% LS & 50% SH, as above. Abnt brick red Slt Stn from up the hole. Occ pc lt gry opaque chrt, & pyrite scatt.
- 5680' - 5700' 70% LS & 30% SH, As above.
- 5700' - 5720' 60% LS & 40% SH, dk gry-gry, micaceous, calc, carb? in pt, abnt red slt stn - cavings.
- 5720' - 5740' 50% LS & 50% SH, As above.
- 5740' - 5770' 60% LS, lt gry-buff, fn xlyn, dnse, sharp, No  $\phi$ , 40% SH, As above. Occc pyrite xl in mtx, tr blk splintery calc shale, dolomitic in pt.
- 5770' - 5800' 80% LS & 20% SH, As above.
- 5800' - 5830' 90% LS, buff-cream, fn xlyn, PPP, No Sho, hd, dnse, indistinct fossils. 10% Gry Dolomitic SH, As above.
- 5830' - 5840' Section as above - 90% LM, 10% SH w/tr reef lithology, v/distinct coral structure. Good  $\phi$  but No Sho.
- 5840' - 5850' 70% LS, Buff-lt gry, fn xlyn, hd sharp, No  $\phi$ , 30% gry dolomitic shale, as above.
- 5850' - 5860' 80% LS & 20% SH, As above.
- 5860' - 5880' 100% LS & tr SH, As above. Occ pc of coral structure, LS - beach white to cream, Bio-clastic, firm, fair  $\phi$ , No Sho.
- 5880' - 5900' 80% LS - Buff-lt gry, fn xlyn, dnse, No  $\phi$ , 20% SH, predom dk gry, Dolomitic? w/abnt cavings from up the hole. Samples are not v/good.

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SAMPLE DESCRIPTION: (Cont'd.)

- 5900' - 5950' 80% LS & 20% SH, As above, w/abnt ccal, blk, brittle, some lignitic. Abnt red slt stn & SH, samples are not representative.  
Note: Abnt coral structure in 5920'-30' sample. T/Miss - 5910? Occ pc carmel colored opaque chrt.
- 5950' - 5980' Section as above - 80% LS & 20% SH, w/abnt cream & carmel chrt scatt thru-out mtx.
- 5980' - 6000' 70% LS as above, w/30% lavender SH, slty in pt, non calc. No Sho.
- 6000' - 6020' 40% LS, beach white, fn xlyn, chalky, indistinct foss frags (Coral?) Good  $\beta$ , No Flu, No Sho, 40% LS, lt gry, fn xlyn, dnse, sharp as above. 20% gry & lavender SH, as above.
- 6020' - 6050' 50% LS, buff-lt gry, fn xlyn, dnse, poor  $\beta$ , hd, Bio-Clastic in pt, w/some beach white, as above. 50% SH, lavender, lt green, dk gry, Micro-mic, bentonitic in pt, w/abnt brick red & dk brn slt stn & shale from up hole. Samples are not representative. Occ pc lt gry & orange opaque Chrt. No Sho.
- 6050' - 6130' 80% Brick red-dk brn slty stone & slty shale. No calc, tr anhydrite, samples are not representative. 20% Lt gry-beach white, LS, as above, dnse, tite, No  $\beta$ .
- 6130' - 6156' 80% LS, cream-Beach white, fn xlyn, dnse, No  $\beta$ , Non-fossiliferous. 20% red slt stn & slty shale, as above.

528

SUMMARY:

This well was spudded on February 10, 1970, at East Boundary Butte and was plugged and abandoned March 3, 1970. A total of 16 days and 309-3/4 rotating hours were required for the drilling of this test.

All formations were evaluated by (1) careful examination of rotary cuttings from 2100' to 2500' and from 4000' to total depth, by the geologist in the field; (2) two drill stem tests in the Ismay and Desert Creek lithic zones; and (3) by qualitative and quantitative evaluation of the electrical surveys.

Rotary samples were saved from grass roots to total depth, and taken to Four Corners sample cut in Farmington, New Mexico.

*W. D. Stricklin*

W. D. STRICKLIN  
Certified Professional Geologist

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NAVAJO # 1-1:

3/1/70: Days 19. Depth 5950' (Limestone & Shale). Drilled 190' in 23-1/4 hrs. Present operation: drilling w/Bit # 16. MW 9.1, Visc. 44, WL 6.8, FC 2/32, ph 8.5, 4% oil, 9% solids, trace of sand, 3% LCM. Bit # 16 (7-7/8", Smith, 4JS): drilled 275' in 35-1/4 hrs. (now drilling). Top of Mississippian ≈ 5951'.

3/2/70: Days 20. Depth 6134' (Limestone & Shale). Drilled 184' in 18-1/2 hrs. Present operation: drilling. MW 9.1, Visc. 45, WL 6.8, FC 2/32, 4% oil, 9% solids, 3% LCM. Bit # 16 (7-7/8", Smith, 4JS): drilled 459' in 52-3/4 hrs. (now drilling).

18-1/2 hrs.	-drilling
5-1/4 hrs.	-circulating for samples
1/4 hrs.	-rig service

3/3/70: Days 21. Depth 6156' (Limestone and Shale). Drilled 22' in 3 hrs. MW 9.1, Visc. 54, WL 7, FC 2/32, 3% oil, 8% solids. Bit # 16 (4JS, Smith, 7-7/8"): drilled 481' in 55-3/4 hrs. (out of hole at 6156').

3 hrs.	-drilling
3 hrs.	-circulating and conditioning for logs
4-3/4 hrs.	-tripping
6 hrs.	-logging
7-1/4 hrs.	-circulating and waiting on logs to get to Denver, and preparing to plug.

3/4/70: Days 22. TD 6156'. Present operation: rigging down. Plugged and abandoned well as follows:

5 hrs. circulating	#1: 6156-6000' (156') 45 sx
7-1/2 hrs. plugging well	#2: 5200-5000' (200') 60 sx
1-1/2 hrs. Laying down drill collars	#3: 4350-4250' (100') 30 sx
5 hrs. rigging down	#4: 2400-2300' (100') 30 sx
5 hrs. waiting on cementing equipment	#5: 565-465' (100') 30 sx
	#6: top of surface 5 sx (w/regulation marker)

Final Report. Well plugged and abandoned.

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NAVAJO #1-1:

(2/25/70): DST #2: 5209-5250' (40').

10:25 PM: Opened tool (30 min.) - weak to good blow in 4 min.  
 10:55 PM: Closed tool (32 min.).  
 11:27 PM: Opened tool (180 min.) - very weak to good blow at 11:37 PM,  
 decreased to very weak at 12:00 Midnight, closed tool at  
 2:27 AM (very weak at end). No gas to surface. Started  
 out at 3:27 AM.

Recovered: 90' highly sulfur-water-cut mud  
 510' black sulfur water  
 600' total

<u>Pressures:</u>	HP	2492/2492	<u>Sampler:</u>	100 psi. zero gas/ and zero oil, and
	FP	132-132/132-308		2050 cc blk. sulfur
	SIP	1274/1274		water (sp - 1.045), R <sub>w</sub> = 0.20 at 65° Chloride: 24,240 ppm

2/26/70: Days 16. Depth 5438' (Limestone & Shale). Drilled 188' in 20-1/2 hrs. Present operation: drilling. MW 9.1, Visc. 42, WL 6.5, FC 2/32, ph 9, 3% oil, 8% solids, trace of sand. Bit #15 (7-7/8", 4JS, Smith): drilled 188' in 20-1/2 hrs. -- now drilling.

1-3/4 hrs. -tripping  
 1/4 hr. -rig servicing (and checking BOP)  
 1-1/2 hrs. -laying down and loading out DST tools  
 20-1/2 hrs. -drilling

2/27/70: Days 17. Depth 5612' (Limestone and Shale). Drilled 174' in 21-1/4 hrs. Present operation: drilling. MW 9.1, Visc. 43, WL 6.5, FC 2/32, ph 9, 3% oil, 8% solids, 3% LCM. Bit # 15 (Smith, 7-7/8", 4JS): drilled 362' in 42-3/4 hrs. --now drilling.

21-1/4 hrs. -drilling  
 1/2 hr. -checking pump  
 1/4 hr. -rig service and checking BOP  
 2 hrs. -circulating for samples

2/28/70: Days 18. Depth 5760' (Limestone & Shale). Drilled 148' in 19-1/2 hrs. MW 9.0, Visc. 43, WL 6.8, FC 2/32, ph 8.5, 5% oil, 9% solids, trace of sand, 3% LCM. Bit # 15 (7-7/8", Smith, 4JS): drilled 425' in 47-3/4 hrs. (out of hole at 5675'). Bit # 16 (7-7/8", Smith, 4JS): drilling -- has made 85' in 12 hrs. Dev. 1/4° at 5675'.

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NAVAJO #1-1:

2/24/70: Days 14. Depth 5199' (14' in 1-1/2 hrs.). MW 9.0, Visc. 47, WL 10, FC 2/32, 8% solids, 2% oil. Bit #13 (7-7/8", 4JS, Smith): drilled 55' in 6-3/4 hrs.

2 hrs. -lost circulation at 5199'  
 5 hrs. -circulating and waiting on orders  
 1-1/2 hrs. -laying and loading out test tools  
 1-1/4 hrs. -picking up tools for DST #1  
 5-1/2 hrs. -running DST #1  
 7-1/4 hrs. -tripping

Present operation: going in hole to drill ahead.

DST #1: 5144-99'. (Strapped pipe, no correction).

<u>Fluid Recovery:</u>		<u>Times</u>	
180' HGCM	IF	30 min.	strong blow
450' HG&OCM	ISI	30 min.	
180' HO&SWCM	FF	180 min.	weak to good blow (GTS in 2 hr.-5 min., est. at 2 MCF/D)
180' SO&HMCSW			
900' SO&GCSW	FSI	60 min.	
540' VSO&GCSW			
<u>2430' total recovery</u>			

Sampler: Recovered 2100 cc fluid (2000 cc wtr. -  $R_w = 0.38$  at 65° F, and 100 cc oil) + 0.8 cfg.

Pressures: IH = 2464, IF = 133/467, ISI = 1473, FF = 493/1049, FSI = 1354, FH = 2425.

2/25/70: Days 15. Depth 5250' (51' in 5-1/4 hrs.). Bit #14 (7-7/8", Smith, 4JS): drilled 51' in 5-1/4 hrs. MW 9.1, Visc. 45, WL 10, FC 2/32, 8% solids, 2% oil.

1/4 hr. -rig service  
 1/4 hr. -washing to bottom  
 5-1/4 hrs. -drilling  
 3-1/4 hrs. -circulating for samples  
 1 hr. -waiting on DST tools  
 3/4 hrs. -picking up DST tools  
 5-1/4 hrs. -testing  
 8 hrs. -trip time

Present operation: laying down test tools.

(continued Page 4)

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NAVAJO #1-1:

2/16/70: Days 6. Depth 3630' (Limestone and Shale). Drilled 390' in 20-3/4 hrs. Present operation: Drilling w/Bit #7. MW 8.8, Visc. 35, WL 8.2, FC 2/32, ph 8.3, 4% oil, 7% solids. Bit #6 (Smith, 7-7/8", DG): 2849 - 3392' (543' in 18 hrs.). Bit #7 in at 3392'. Dev. 1° at 3662'.

2/17/70: Days 7. Depth 3940' (Sand & Shale). Drilled 310' in 17-3/4 hrs. Drilling w/Bit #8. MW 9.0, Visc. 35, WL 18.2, FC 2/32, ph 11.5, 2% oil, 7% solids. Bit #7 (7-7/8", Smith, DGTH): 3392 - 3661' (302' in 17-1/2 hrs.). Bit #8 (7-7/8", Smith): in at 3661' -- now drilling. Dev. 1-1/4° at 3664'.

2/18/70: Days 8. Depth 4172' (Sand & Shale). Drilled 227' in 18-3/4 hrs. Present operation: drilling. MW 9. Visc. 36, WL 21, FC 2/32, ph 10.5, 5% oil, 8% solids, trace of sand. Bit #8 (7-7/8", Smith, DGTH): drilled 316' in 20-1/2 hrs. (out of hole at 3872'). Bit #9 (7-7/8", Smith, U2H): drilled 192' in 16 hrs. -- now drilling. Dev. 3/4° at 3980'.

18-3/4 hrs. -drilling  
5-1/4 hrs. -tripping, surveys and rig service

2/19/70: Days 9. Depth 4412' (240' drilled in 20 hrs.) (Sand & Shale). MW 9.2, Visc. 32, WL 20, ph 10, solids 9%, 5% oil. Bit #9 (7-7/8", Smith, V2H): drilled 220' in 18-1/2 hrs. Bit #10 (7-7/8", Smith, K2): drilled 212' in 17-1/2 hrs. -- now drilling. Dev. 1/2° at 4200'. Bit #9 out at 4200'.

2/20/70: Days 10. Depth 4659' (247' in 20-1/4 hrs.) (Sand & Shale). Bit #10 (7-7/8", K-2, Smith): drilled 222' in 18-1/2 hrs. Bit #11 (7-7/8", VIH, Smith): drilled 237' in 19-1/4 hrs. - now drilling. MW 9.1, Visc. 33, WL 10.5, FC 2/32, ph 9, 5% oil, 8% solids, 1/4 of 1% sand. Present operation: drilling.

2/21/70: Days 11. Depth 4819' (Limestone & Shale). Drilled 160' in 19 hrs. MW 9.1, Visc. 36, WL 9.8, FC 2/32, ph 9, 4% oil, 8% solids. Bit #11 (7-7/8", Smith, VIH): drilled 260' in 23 hrs. (out of hole at 4682'). Bit #12 (7-7/8", Smith, 4JS): drilled 137' in 15 hrs. Dev. 1/4° at 4682'.

2/22/70: Days 12. Depth 5034' (Limestone & Shale). Drilled 115' in 23-1/2 hrs. Present operation: drilling. MW 9.1, Visc. 38, WL 11.5, FC 2/32, ph 8.5, 3% oil, 8% solids. Bit #12 (7-7/8", Smith, 4JS): drilled 352' in 38-3/4 hrs. (now drilling).

2/23/70: Days 13. Depth 5185' (Limestone & Shale). Drilled 151' in 24 hrs. Present operation: drilling. MW 9.2, Visc. 38, WL 11.4, FC 2/32, ph 8.6, 3% oil, 8% solids. Bit #12 (7-7/8", Smith, 4JM): drilled 462' in 52-1/4 hrs. (out of hole at 5144'). Bit #13 (7-7/8", Smith, 4JM): drilled 41' in 5-1/4 hrs. Dev. 1/4° at 5144'.

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CONSOLIDATED OIL & GAS, INC.

NAVAJO #1-1:

Location: SW SW Section 1  
T41N-R28E  
Apache County, Arizona

Elevation: 5710' KB

COG's Interest: 100%



2/10/70: Moved in. Rigging up. Should spud this PM.

2/11/70: Days 1. Depth 375' (drilled 375' in 8-1/2 hrs.). Present operation: drilling surface hole. Dev. 3/4° at 158'. Finished rigging up. Spudded 12-1/4" surface hole at 10:30 PM, 2/10/70. (Drilling w/ native mud).

2/12/70: Days 2. Depth 890'. Drilled 580' in 7-1/4 hrs. Present operation: drilling w/Bit #3 (w/water). Bit #3 (7-7/8", Smith, SDT): drilled 378' in 3-3/4 hrs. Bit #2 (12-1/4", Smith, Retip): drilled 202' in 3-1/2 hrs. (out of hole at 512'). Dev. 1° at 327', 1° at 512'. Drilled 12-1/4" hole to 512'. Ran 16 jts. 8-5/8", 24# (514.94'), J-55 casing, set at 512'. Cemented w/150 sx 60/40 pozmix w/8% gel and 100 sx Class "C" w/ 1/4# Flocele/sk and 2% CaCl<sub>2</sub>. POB 2:15 PM, 2/11/70. Used 3 centralizers, one guide shoe. Press. tested to 800 psi for 30 min. Test OK. Cement circulated. Drilled out at 2:15 AM, 2/12/70.

2/13/70: Days 3. Depth 2060' (Sand & Shale). Drilled 1170' in 22 hrs. Drilling w/Bit #4. MW 8.9, Visc. 35. Bit #3 (7-7/8", Smith, SDT): drilled 1062' in 15-1/2 hrs. (out of hole at 1579'). Bit #4 (7-7/8", Smith, DT): drilled 481' in 10-1/4 hrs. -- still drilling. Dev. 1-1/4° at 1016', 2-1/2° at 1517'.

2/14/70: Days 4. Depth 2840' (Sand & Shale). Drilled 780' in 21 hrs. Present operation: drilling w/Bit #5. MW 9.2, Visc. 33. Bit #4 (7-7/8", Smith, DT): drilled 773' in 18-3/4 hrs. (out of hole at 2352'). Bit #5 (7-7/8", Smith, DGT): drilled 448' in 12-1/2 hrs. -- now drilling. Dev. 1-1/4° at 2450'.

2/15/70: Days 5. Depth 3240' (Sand & Shale). Drilled 400' in 21-1/2 hrs. Present operation: drilling w/Bit #6. MW 9.2, Visc. 34, WL 8.3, ph 8.2, 4% oil, 7% solids. Bit #5 (7-7/8", Smith, DGT): 2352 - 2849' (597' in 21 hrs.). Bit #6 (7-7/8", Smith, DG): drilled 391' in 12-1/2 hrs. -- now drilling. Dev. 1-3/4° at 2940'.

5 528 - Driller's Log

March 17, 1970

The two following wells have been received  
at the Cut.

Aritex Dev. Corp. #1 Fee Strat  
Sec. 6-17N-21E  
Apache Co. Arizona 530

528 Consolidated, #1-1 Navajo  
Sec. 1-41N-28E  
Apache Co. Arizona

*J. Ratcliff*  
FOUR CORNERS SAMPLE CUT



528

Consolidated #1-1 Navajo.

PERMIT # 528

Telephone from Bill Green = (3-3-70 Consolidated Geologist in Denver)  
Gave Verbal Permission To Plug. JET

E. Log Tops =

Shinarump	1904
Coconino	2355
Hermosa	4300
Ismay	5048
Lower Ismay	5126
Desert Creek	5170
Alah	5358
Mohave	5940
Mississippian	6047
TD	6150

DST #1: 5144-99; Rec 2400' Fluid:  
 600' HG & OCM  
 1800' Shi. O. GC Salt Wtr  
 2400' TOTAL

DST #2: 5209-50: REC 510 Sulfur Wtr.; No Show.

No CORE taken.

Plugging Program: Cement plug from: TD (6150) - 6000  
 5200 - 5000  
 4350 - 4250  
 2400 - 2300  
 565 - 465

Set csg. 8 5/8 @ 512'

Surface plug & Dry hole marker.

528  
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UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK DRILL  DEEPEN  PLUG BACK

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

2. NAME OF OPERATOR  
Consolidated Oil & Gas, Inc.

3. ADDRESS OF OPERATOR  
Suite 1300 - 1860 Lincoln St., Denver, Colorado 80203

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*  
At surface  
825' FSL & 670' FWL Section 1, T41N-R28E SW SW  
At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
25 mi. from Shiprock, New Mex. or Montezuma Creek, Utah

10. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drilg. unit line, if any) 670'

18. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 1000' W

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
5698.0 Ungr. Gr.

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8"	32#	500'	To Surface
7-7/8"	5-1/2"	14#	6150'	600 Sacks

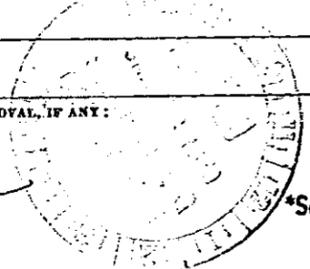
It is proposed to drill a 12-1/4" hole to approximately 500'. 8-5/8" surface casing will be set at approximately 500' and cemented to surface. It is further proposed to drill a 7-7/8" hole to approximately 6,150', set 5-1/2" casing to approximately 6,150', and cement with 600 sacks in two stages. A mud weighing approximately 9.0 lbs./gal. will be employed.

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

24. SIGNED E. I. Henderson TITLE Mgr. of Operations DATE 1/9/70  
(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_  
APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

Permit  
528



\*See Instructions On Reverse Side

5. LEASE DESIGNATION AND SERIAL NO.  
Tribal 14-20-603-226  
6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
Navajo  
7. UNIT AGREEMENT NAME  
8. FARM OR LEASE NAME  
East Boundary Butte  
9. WELL NO.  
1-1  
10. FIELD AND POOL, OR WILDCAT  
East Boundary Butte  
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
Section 1, T41N-R28E  
12. COUNTY OR PARISH  
Apache  
13. STATE  
Arizona  
16. NO. OF ACRES IN LEASE  
2379.28  
17. NO. OF ACRES ASSIGNED TO THIS WELL  
80 W/2 SW/4  
19. PROPOSED DEPTH  
6150'  
20. ROTARY OR CABLE TOOLS  
Rotary  
22. APPROX. DATE WORK WILL START\*  
1/23/70

528

### APPLICATION FOR PERMIT TO DRILL OR RE-ENTER

APPLICATION TO DRILL

RE-ENTER OLD WELL

Consolidated Oil & Gas, Inc.

NAME OF COMPANY OR OPERATOR

Suite 1300 - 1860 Lincoln Street Denver

Colorado 80203

Address

(None designated as of this date)

Drilling Contractor

Address

#### DESCRIPTION OF WELL AND LEASE

Federal, State or Indian Lease Number, or if fee lease, name of lessor <b>Tribal Lse. #14-20-603-226</b>	Well number <b>1-1</b>	Elevation (ground) <b>5698.0</b>
Nearest distance from proposed location to property or lease line: <b>670 feet</b>	Distance from proposed location to nearest drilling completed or applied—for well on the same lease: <b>1000 feet W</b>	
Number of acres in lease: <b>2,379.28</b>	Number of wells on lease, including this well, completed in or drilling to this reservoir: <b>4</b>	

If lease, purchased with one or more wells drilled, from whom purchased: **Shell Oil Company** Name **Los Angeles, California** Address

Well location (give footage from section lines) **825' FSL & 670' FWL** Section—township—range or block and survey **Section 1, T41N-R28E** Dedication (Comply with Rule 105) **W/2 SW/4**

Field and reservoir (if wildcat, so state) **East Boundary Butte - Pennsylvanian** County **Apache**

Distance, in miles, and direction from nearest town or post office  
**25 miles from Shiprock, New Mexico or Montezuma Creek, Utah**

Proposed depth: <b>6150'</b>	Rotary or cable tools <b>Rotary</b>	Approx. date work will start <b>January 23, 1970</b>
Bond Status <b>Performance</b>	Organization Report	Filing Fee of \$25.00
Amount <b>\$25,000</b>	On file <b>XX</b> Or attached	Attached <b>XX</b> Check No. <b>07538</b>

Remarks:  
**It is proposed to drill to a total depth of approximately 6,150' to test the Mississippian formation. A mud weighing approximately 9.2 lbs./gal. will be employed.**

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the **Manager of Operations** 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.



Signature **E. J. Henderson**  
Date **January 9, 1970**

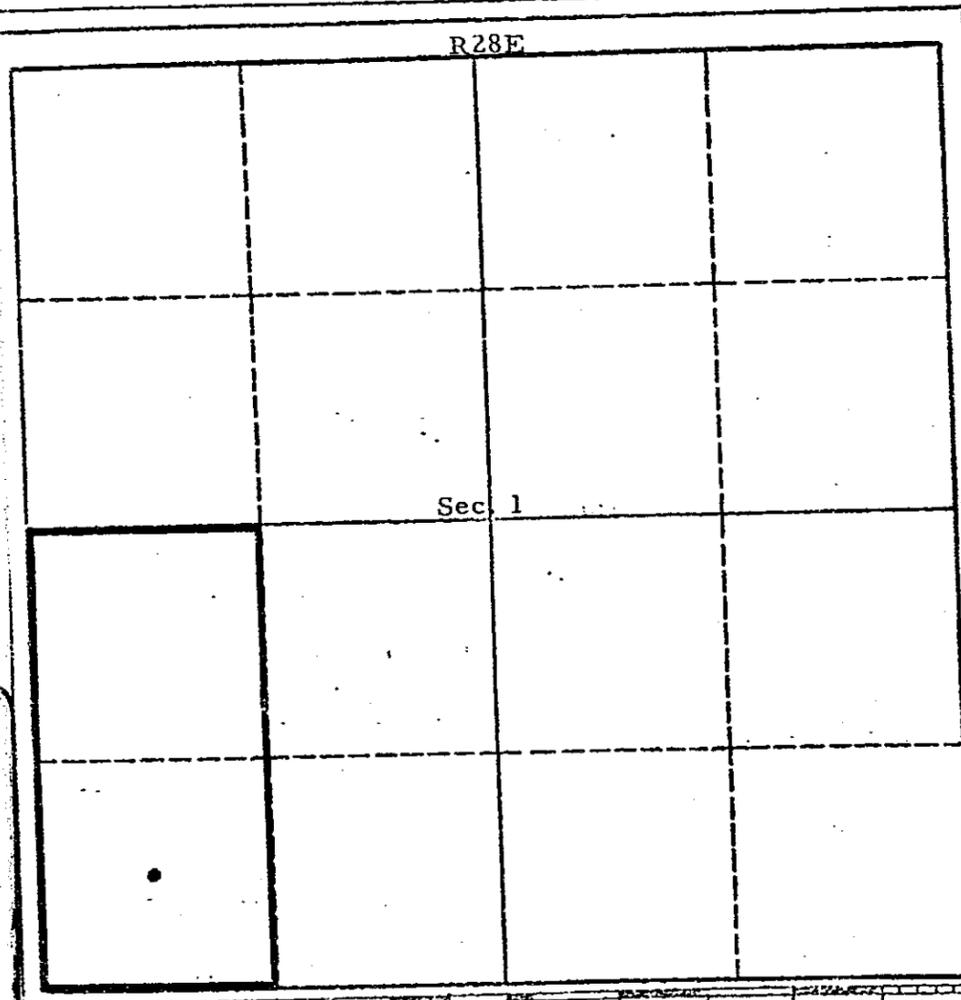
Permit Number: **528**  
Approval Date: **1-15-70**  
Approved By: **John Vannister**

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

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

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

Owner	Land Description



**CERTIFICATION**

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

*E. J. Henderson*  
 Name  
 E. J. Henderson  
 Position  
 Mgr. of Operations  
 Company  
 Consolidated Oil & Gas, Inc.  
 Date  
 1/9/70

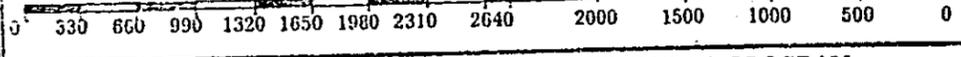
**T41N**

I hereby certify that the well location shown on the plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed \_\_\_\_\_

Registered Professional Engineer and/or Land Surveyor

Certificate No. \_\_\_\_\_



**PROPOSED CASING PROGRAM**

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement

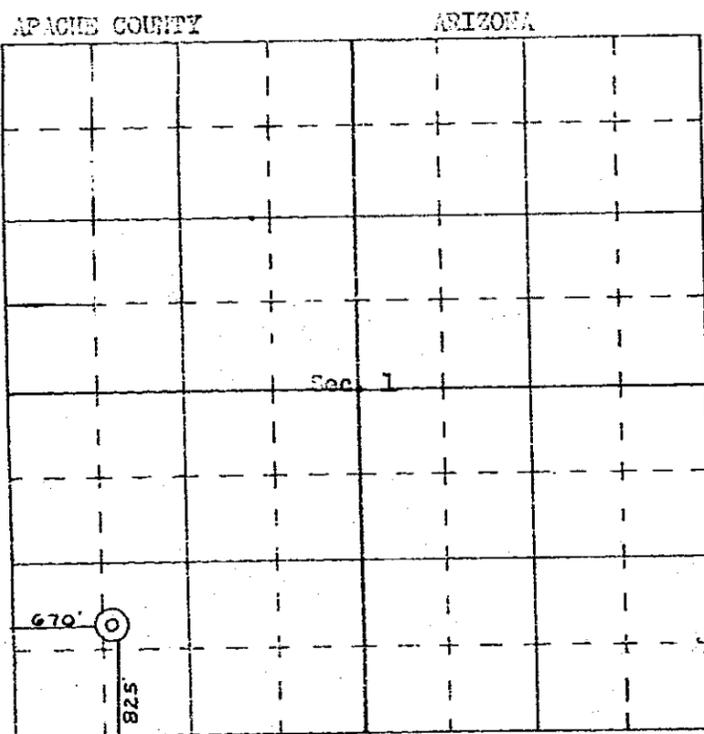
COMPANY CONSOLIDATED OIL & GAS, INC.

LEASE ..... WELL NO. ....

SEC. 1 T. 11 NORTH R. 26 EAST, G. & S.E. 1/4

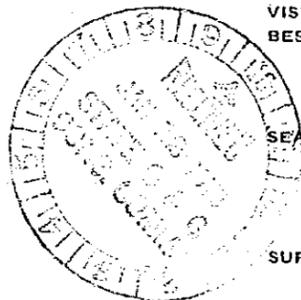
LOCATION 625 feet from the South line and  
670 feet from the West line

ELEVATION 5698.0



SCALE—1 INCHES EQUALS 1 MILE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM  
FIELD NOTE OF ACTUAL SURVEYS MADE BY ME UNDER MY SUPER-  
VISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE  
BEST OF MY KNOWLEDGE AND BELIEF.



SEAL:

*James P. Ivesse*  
Registered Land Surveyor.

JAMES P. IVESSE  
Ariz. Reg. No. 1849

SURVEYED 22 December 1969





# PERMIT TO DRILL

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

To: CONSOLIDATED OIL & GAS, INCORPORATED  
(OPERATOR)

to drill a well to be known as

CONSOLIDATED OIL & GAS, INCORPORATED #1-1 NAVAJO (226)  
(WELL NAME)

located 825' FSL - 670' FWL

Section 1 Township 41N Range 28E APACHE County, Arizona.

The W/2 SW/4 of said  
Section, Township and Range is dedicated to this well.

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

Issued this 15th day of JANUARY, 19 70.

OIL AND GAS CONSERVATION COMMISSION

By John Kinnister  
EXECUTIVE SECRETARY

PRIOR TO BEING ALLOWED TO PRODUCE THIS WELL  
YOU MUST BE IN FULL COMPLIANCE WITH RULE  
105, SECTION A THRU G (SPACING), WITH RESPECT  
TO THE PRODUCT TO BE PRODUCED.

PERMIT No 528

RECEIPT NO. 2862  
API No. 02-001-20126

State of Arizona  
Oil & Gas Conservation Commission  
Permit to Drill

FORM NO. 27

SAMPLES ARE REQUIRED



*Consolidated Oil & Gas, Inc.*

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

March 20, 1970

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

Attention: Mr. James A. Lambert

Re: Navajo #1-1  
SW SW Sec. 1, T41N-R28E  
Apache County, Arizona

Gentlemen:

With regard to the completion of the above-captioned dry hole, please find enclosed the following data:

Plugging Record, Form #10;  
Well Completion Report and Log, Form #4; and  
Daily Drilling History

Logs run on this well were submitted to your office by letter dated March 11, 1970.

Very truly yours,

CONSOLIDATED OIL & GAS, INC.

*D. E. Smink*  
D. E. Smink  
Petroleum Engineer

DES/cc

Enclosures

cc. The Navajo Tribe  
Minerals Department



March 20, 1970

United States Geological Survey  
Department of the Interior  
P. O. Box 959  
Farmington, New Mexico

Attention: Mr. P. T. McGrath

Re: Navajo #1-1  
SW SW Sec. 1, T41N-R28E  
Apache County, Arizona

Gentlemen:

With regard to the completion of the above-captioned dry hole, please find enclosed the following data:

Form 9-331 - Notice of Intention to Abandon (3 copies),  
Form 9-331 - Subsequent Report of Abandonment (3 copies),  
Form 9-330 - Well Completion Report and Log (2 copies), and  
Daily Drilling History (2 copies).

Logs run on this well were submitted to your office by letter dated March 11, 1970.

Very truly yours,

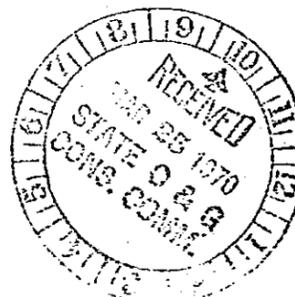
CONSOLIDATED OIL & GAS, INC.

D. E. Slink  
Petroleum Engineer

DES/cc

Enclosures

cc. ✓ State of Arizona, Oil and Gas  
Conservation Commission  
The Navajo Tribe, Minerals Dept.





*Consolidated Oil & Gas, Inc.*

LINCOLN TOWER BUILDING  
1880 LINCOLN STREET  
DENVER, COLORADO 80203  
(303) 255-1751

March 11, 1970

MEMORANDUM TO PARTICIPANTS:

Completion Report  
Navajo # 1-1  
Sec. 1-T41N-R28E  
Apache County, Arizona

Enclosed for your files are the logs and completion report on the subject well.

If we can be of further assistance, please let us know.

Very truly yours,

CONSOLIDATED OIL & GAS, INC.

*M. H. Walsh*

M. H. Walsh  
Chief Geologist

MHW/lcb

Enclosures



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/vb

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.

528

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
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
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- \_\_\_\_\_
- \_\_\_\_\_

**CANCELLED**  
DATE 2-2-79 *walk*

*SEE FILE 518 FOR*  
*CANCELLED BOND* DATE \_\_\_\_\_

**CANCELLED**

*F. Chano*

January 15, 1970

Mr. E. J. Henderson  
Consolidated Oil & Gas, Inc.  
Lincoln Tower Building  
1860 Lincoln Street  
Denver, Colorado 80203

Re: Consolidated Oil & Gas #1-1 Navajo (226)  
T41N, R28E, G & SRM  
Sec. 1: SW/4 SW/4  
Apache County  
Permit #528

Dear Mr. Henderson:

Enclosed is an approved copy of your Application For Permit To Drill, a copy of the plat, our Receipt No. 2862 covering the \$25 filing fee, and our Permit To Drill No. 528. Instruction sheets pertaining to samples and other requirements of the Commission have been furnished you in previous correspondence. We would like to take this opportunity to thank Consolidated for the splendid way they submit the necessary reports and keep this Commission informed as to present operations on currently drilling wells.

Sincerely,

John Bannister  
Executive Secretary

jd  
Enc. (4)

528



*Consolidated Oil & Gas, Inc.*

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

January 9, 1970

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

Attention: Mr. James A. Lambert

Gentlemen:

Navajo No. 1-1  
SW SW Section 1, T41N-R28E  
East Boundary Butte Field  
Apache County, Arizona

We are enclosing two copies each of Form No. 3 and U. S. G. S.  
Form No. 9-331C on the captioned well, along with two copies  
of the Certified Location Plats.

Also enclosed please find our check No. 07538 in the amount  
of \$25.00 to cover the permit fee.

Yours very truly,

CONSOLIDATED OIL & GAS, INC.

E. J. Henderson  
Manager of Operations



EJH/sw

Enclosures

cc: Navajo Tribe, Minerals Dept.  
U. S. G. S. - Farmington, New Mexico



*Consolidated Oil & Gas, Inc.*

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

December 23, 1969

Mr. Leland Abels  
Staff Archeologist  
National Park Service  
P. O. Box 1060  
Gallup, New Mexico

Dear Mr. Abels:

Re: Navajo 1-1  
SW SW Section 1, T41N-R28E  
Apache County, Arizona

Consolidated has employed a surveyor to stake the location of the subject well. It would be appreciated if you would advise us if construction of the location would disturb, destruct, or remove any specimens of archeological interest.

Yours very truly,

CONSOLIDATED OIL & GAS, INC.

*D. E. Smink*  
D. E. Smink  
Petroleum Engineer

DES/sw

cc: Bureau of Indian Affairs  
Window Rock, Arizona  
The Navajo Tribe, Minerals Dept.  
Window Rock, Arizona  
State of Arizona  
Oil and Gas Conservation Comm.  
U. S. G. S. - Farmington



V. O. NO. 10-125

*Consolidated Oil & Gas, Inc.*

LINCOLN TOWER BUILDING  
1860 LINCOLN STREET  
DENVER, COLORADO 80202

Phone: AREA 303  
255-1751

07538

DATE	INVOICE NO.	DESCRIPTION	G	DEDUCTIONS	NET AMOUNT
1/8/70		Permit to drill: Navajo #1-1, SW SW Sec. 1-T41N-R28E Apache County, Arizona			\$25.00
					528

