

**CONFIDENTIAL**

Release Date \_\_\_\_\_

**CONFIDENTIAL**

Release Date \_\_\_\_\_

Duval Corporation Well No. 57 *57*  
NE/NW Sec. 10, T18N, R26E *(66-)*  
Apache Co.

COUNTY Apache AREA Naaajo Springs LEASE NO. State Prospecting Permit No. 32593

WELL NAME Duval Corporation Well No. 57 State

LOCATION NE/NW SEC 10 TWP 18N RANGE 26E FOOTAGE 688.6 FNL & 2429.9 FWL  
 ELEV 5805GR 5809 KB SPUD DATE 6-28-76 STATUS P9A TOTAL DEPTH 1452  
 COMP. DATE 10-22-76

CONTRACTOR Boyles Bros. & Harness Drilling Co.

CASING SIZE	DEPTH	CEMENT	LINER SIZE & DEPTH	DRILLED BY ROTARY
<u>7"</u>	<u>787</u>			<input checked="" type="checkbox"/>
<u>5 9/16"</u>	<u>1307</u>			<input type="checkbox"/>
				DRILLED BY CABLE TOOL <input type="checkbox"/>
				PRODUCTIVE RESERVOIR <input type="checkbox"/>
				INITIAL PRODUCTION <input type="checkbox"/>

FORMATION TOPS	DEPTHS	SOURCE		REMARKS
		L.L.	E.L.	
<u>Moenkopi</u>	<u>788?</u>			
<u>Cocconino</u>	<u>878</u>		<input checked="" type="checkbox"/>	
<u>Supai</u>	<u>1220</u>			

ELECTRIC LOGS	PERFORATED INTERVALS	PROD. INTERVALS	SAMPLE LOG
<u>Gamma Ray - Neutron</u>			<input checked="" type="checkbox"/>
			SAMPLE DESCRP.
			SAMPLE NO. <u>1773</u>
			CORE ANALYSIS
			DSTs

REMARKS \_\_\_\_\_ APP. TO PLUG   
 PLUGGING REP.   
 COMP. REPORT

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

BOND CO. Federal Ins. Co filed in P/N 675 BOND NO. 80605375  
 BOND AMT. \$ 25,000 CANCELLED \_\_\_\_\_ DATE 5-23-74  
 FILING RECEIPT 0678 LOC. PLAT  WELL BOOK  PLAT BOOK   
 API NO. 02-001-20221 DATE ISSUED 7-1-76 ORGANIZATION REPORT On File  
 DEDICATION N.A.

PERMIT NUMBER 665  
 CONFIDENTIAL  
 Release Date 11-15-1977 10-22-76  
 CONFIDENTIAL

### 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: **DUVAL CORPORATION** Address: **4715 E. Ft. Lowell Rd., Tucson, Az. 85712**  
 Federal, State or Indian Lease Number or name of lessor if fee lease: **State Prospecting Permit #32593** Well Number: **57** Field & Reservoir:  
 Location: **688.6' FNL, 2429.9' FWL** County: **Apache**  
 Sec. TWP-Range or Block & Survey: **Sec. 10, T18N, R26E**

Date spudded: **6/28/76** Date total depth reached: **P.B.T.D.** Date completed, ready to produce: **5805** Elevation (DF, REB, RT or Gr.) feet: **5805** Elevation of casing hd. Range feet:  
 Total depth: **1452** Single, dual or triple completion? **0 - 1452** Cable tools used (interval):  
 Producing interval (s) for this completion: **0 - 1452** Rotary tools used (interval):  
 Was this well directionally drilled? **No** Was directional survey made? **No** Was copy of directional survey filed? **11/15/76** Date filed:  
 Type of electrical or other logs run (check logs filed with the commission): **GRN** Date filed: **11/15/76**

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
Protective	8-3/4"	7"	14	787'	-	-
Protective	6-1/2"	5-9/16"	10.76	1307'	-	1307'

TUBING RECORD

Size	Depth set	Packer set at	Size	Top	Bottom	Sacks cement	Screen (ft.)
in.	ft.	ft.	in.	ft.	ft.		

PERFORATION RECORD

Number per ft.	Size & type	Depth Interval	Am't. & kind of material used	Depth Interval

INITIAL PRODUCTION

Date of first production: \_\_\_\_\_ Producing method (indicate if flowing, gas lift or pumping—if pumping, show size & type of pump): \_\_\_\_\_  
 Date of test: \_\_\_\_\_ Hrs. tested: \_\_\_\_\_ Choke size: \_\_\_\_\_ Oil prod. during test: \_\_\_\_\_ Gas prod. during test: \_\_\_\_\_ Water prod. during test: \_\_\_\_\_ Oil gravity: \_\_\_\_\_  
 Tubing pressure: \_\_\_\_\_ Casing pressure: \_\_\_\_\_ Cal'd rate of Production per 24 hrs.: \_\_\_\_\_ Oil: \_\_\_\_\_ Gas: \_\_\_\_\_ Water: \_\_\_\_\_ Gas-oil ratio: \_\_\_\_\_  
 Disposition of gas (state whether vented, used for fuel or sold): \_\_\_\_\_

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

Date: 11/15/76

RECEIVED

Signature: [Signature]

NOV 16 1976

O & G CONS. COMM.

STATE OF ARIZONA  
 OIL & GAS CONSERVATION COMMISSION  
 Well Completion or Recompletion Report and Well Log  
 File One Copy

Permit No. 665

Form No. 4

**DETAIL OF FORMATIONS PENETRATED**

Formation	Top	Bottom	Description*
Chinle	0	788?	Claystone and Siltstone: variously colored; local sandstone beds.
Moenkopi	788?	878	Siltstone: brown, locally gray
Coconino	878	1220	Sandstone: light tan; v.f.g. - m.g., well sorted, rounded.
Supai	1220	1452	Mudstone: red-brown with some sandstone beds; some anhydrite; mostly halite - with minor mudstone anhydrite below 1330 ft.

note: core samples 1307 to 1452 ft.

\* 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 driller's log or other acceptable log of well.

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

PLUGGING RECORD

RECEIVED

OCT 26 1976

O & G CONS. COMM.

Operator <b>DUVAL CORPORATION</b>		Address 4715 East Ft. Lowell Road, Tucson, AZ 85712			
Federal, State, or Indian Lease Number, or lessor's name if fee lease. State Prospecting Permit #32593		Well No. 57	Field & Reservoir		
Location of Well 688.6' FNL, 2429.9' FWL, Sec. 10, T18N, R26E		Sec-Twp-Rge or Block & Survey	County Apache		
Application to drill this well was filed in name of Duval Corporation	Has this well ever produced GEOTHERMAL RESOURCES? No	Date plugged: October 11, 1976	Total depth 1452		
NAME OF EACH FORMATION CONTAINING GEOTHERMAL RESOURCES. INDICATE WHICH FORMATION OPEN TO WELLBORE AT TIME OF PLUGGING	DEPTH INTERVAL OF EACH FORMATION	SIZE, KIND & DEPTH OF PLUGS USED INDICATE ZONES SQUEEZE CEMENTED, GIVING AMOUNT CEMENT			
		cement plugs			
Chinle	0 - 788'	0 - 20	10 sacks		
Moenkopi	788 - 878'	740 - 940	45 sacks		
Coconino	878 - 1220'	1225 - 1425	20 sacks		
Supai	1220 - TD				
CASING RECORD					
Size pipe	Put in well (ft.)	Pulled out (ft.)	Left in well (ft.)	Give depth and method of parting casing (shot, ripped, etc.)	Packers and shoes
7"	787'	0	187'		
5 9/16"	1307'	1307'	0		
Was well filled with mud-laden fluid, according to regulations? Yes			Indicate deepest formation containing fresh water. Unknown		
NAMES AND ADDRESSES OF ADJACENT LEASE OPERATORS OR OWNERS OF THE SURFACE					
Name	Address		Direction from this well:		
In addition to other information required on this form, if this well was plugged back for use as a fresh water well, give all pertinent details of plugging operations to base of fresh water sand, perforated interval to fresh water sand, name and address of surface owner, and attach letter from surface owner authorizing completion of this well as a water well and agreeing to assume full liability for any subsequent plugging which might be required.					
Use reverse side for additional detail.					
CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the <u>Advanced Geologist</u> of the <u>Duval Corporation</u> (company) and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.					
Date	<u>10/22/76</u>		Signature <u>Ned P. Kuter</u>		
Permit No. <u>665</u>			STATE OF ARIZONA OIL & GAS CONSERVATION COMMISSION Plugging Record File One Copy		
			FORM NO. G-10		

APPLICATION TO ABANDON AND PLUG

FIELD \_\_\_\_\_  
 OPERATOR DUVAL CORPORATION ADDRESS 4715 E. Fort Lowell Rd., Tucson, Az. 85712  
 Federal, State, or Indian Lease Number \_\_\_\_\_  
 or Lessor's Name if Fee Lease State Prospecting Permit #32593 WELL NO. 57  
 SURVEY T18N, R26E SECTION 10 COUNTY Apache  
 LOCATION 688.6' FNL, 2429.9' FWL

The present condition of the well is:

1. Total depth: 1452'
2. Complete casing record, including plugs:  
 7" - 0 - 787'  
 5-9/16" - 0 - 1307'
3. Last produced: \_\_\_\_\_  
 Date \_\_\_\_\_

Additional data for dry hole -

4. Results of tests: (include analysis of effluent)  
 a. Bottom hole temperature: \_\_\_\_\_  
 b. Maximum temperature: \_\_\_\_\_ Depth: \_\_\_\_\_
5. Stratigraphic markers and depths:  
 Top Coconino - 890'
6. Formation at bottom Supai
7. Base of fresh water sands: Unknown

8. FULL DETAILS OF PROPOSED PLAN OF WORK

Pull 1308' of 5-9/16" casing  
Set cement plugs 0' - 20'  
740' - 940'  
1225' - 1425'

If well is to be abandoned, does proposed work conform with requirements of Rule G202? yes If not, outline proposed procedure above.

DATE COMMENCING OPERATIONS October 11, 1976  
 NAME OF PERSON DOING WORK Fleet Cementers ADDRESS Grants, N. M.  
 CORRESPONDENCE SHOULD BE SENT TO Ned P. Krier  
 Name Ned P. Krier  
 Title Advanced Geological Engineer  
 Address 5357 East Pima St., Tucson, Arizona 85712  
 Date October 11, 1976

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OCT 14 1976

O & G CONS. COMM.

Date Approved \_\_\_\_\_  
 STATE OF ARIZONA  
 OIL & GAS CONSERVATION COMMISSION  
 By: \_\_\_\_\_

STATE OF ARIZONA  
 OIL & GAS CONSERVATION COMMISSION  
 Application to Abandon and Plug  
 File Two Copies  
 FORM NO. 4-9

Permit No. 665

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SUNDRY NOTICES AND REPORTS ON WELLS

OCT 18 1976

D & G CON. COMM.

1. Name of Operator DUVAL CORPORATION

2. Oil Well  GAS Well  OTHER  (Specify) STRATIGRAPHIC TEST

3. Well Name DUVAL 57 STATE

Location 688.6 FNL 2429 FWL

Sec. 10 Twp. 18N Rge. 26E County APACHE Arizona.

4. Federal, State or Indian Lease Number, or lessor's name if fee lease \_\_\_\_\_

5. Field or Pool Name \_\_\_\_\_

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

HOLE ORIGINALLY SPUDDED 6/28/76 with 787' of 7" casing set  
 HOLE REENTERED 10/5/76  
 1307' of 5 1/2" casing was set 10/7/76  
 PRESENTLY CORING TO 1436'  
 PLAN TO TD THE HOLE AT 1456' and expect to cement Sunday AM.  
 (CONTACTED THE COCONINO FM. 890'  
 " " SUPAI FM. 1250')

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

Signed Clayton J. Johnson Title GEOLOGIST Date 10/7/76

Permit No 6605

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

RECEIVED

JUL 6 1976

O & G CONS. COMM.

SUNDRY NOTICES AND REPORTS ON WELLS

1. Name of Operator DUVAL CORPORATION

2. Oil Well  GAS Well  OTHER  (Specify) STRATIGRAPHIC TEST

3. Well Name DUVAL CORPORATION 57 - STATE

Location 688.6 FNL 2429 FNL

Sec. 10 Twp. 18N Rge. 26E County APACHE Arizona.

4. Federal, State or Indian Lease Number, or lessor's name if fee lease \_\_\_\_\_

5. Field or Pool Name \_\_\_\_\_

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

HOLE SPUDDED JUNE 28<sup>th</sup>

HOLE COMPLETED JUNE 30<sup>th</sup>, (until deeped at a later date).

COMPLETION DEPTH WAS 787'

0-770 chule formation

770-787 MOENKUPI formation

7" CASING WAS SET 0-787' NO cement

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

Signed Chaplin S. Johnson Title Geologist Date 7/2/76

Permit No. 665

STATE OF ARIZONA  
OIL & GAS CONSERVATION COMMISSION  
Sundry Notices and Reports On Wells  
File Two Copies  
Form No. 28

## APPLICATION FOR PERMIT TO DRILL OR RE-ENTER

APPLICATION TO DRILL

RE-ENTER OLD WELL

**DUVAL CORPORATION**  
 NAME OF COMPANY OR OPERATOR

4715 East Fort Lowell Road      Tucson      Arizona 85712  
 Address      City      State

**HARNES DRILLING COMPANY**      **BOYLES BROS. DRILLING COMPANY**  
 Drilling Contractor

Box 17526, Tucson, Az. 85731      1624 Pioneer Road, Salt Lake City,  
 Address      Utah 84110

### DESCRIPTION OF WELL AND LEASE

Federal, State or Indian Lease Number, or if fee lease, name of lessor <b>State Prospecting Permit #32593</b>	Well number <b>57</b>	Elevation (ground) <b>5805 feet</b>
Nearest distance from proposed location to property or lease line: <b>688.6 feet</b>	Distance from proposed location to nearest drilling, completed or applied—for well on the same lease: <b>2650 feet</b>	
Number of acres in lease: <b>640</b>	Number of wells on lease, including this well, completed in or drilling to this reservoir: <b>NA</b>	

If lease, purchased with one or more wells drilled, from whom purchased:      Name      Address  
**NA**

Well location (give footage from section lines) <b>688.6' FNL, 2429.9 FWL</b>	Section—township—range or block and survey <b>Section 10, T18N, R26E</b>	Dedication (Comply with Rule 105) <b>NA</b>
--	---	--

Field and reservoir (if wildcat, so state)      County  
**Apache**

Distance, in miles, and direction from nearest town or post office  
**10 miles south from Navajo, Arizona**

Proposed depth: <b>1500 feet</b>	Rotary or cable tools <b>Rotary</b>	Approx. date work will start <b>June 29, 1976</b>
Bond Status <b>Statewide - on file</b>	Organization Report On file <input checked="" type="checkbox"/> Or attached	Filing Fee of \$25.00 Attached <input checked="" type="checkbox"/>

Remarks:

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

CONFIDENTIAL

*B. G. Messer*  
 Signature      B. G. Messer

Date      June 28, 1976

Permit Number: **665**  
 Approval Date: **7-1-76**  
 Approved By: *[Signature]*

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.

Form No. 3

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

Owner State of Arizona	Land Description Section 10, T18N, R26E
<b>CERTIFICATION</b>	
I hereby certify that the information above is true and complete to the best of my knowledge and belief.	
<i>B. G. Messer</i> Name B. G. Messer Position Vice President- Minerals Acquisition Company Duval Corporation Date June 28, 1976	
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.	
See attached plat	
Date Surveyed June 23, 1976 Registered Professional Engineer and/or Land Surveyor Troy Baldwin Certificate No. 7334	

PROPOSED CASING PROGRAM

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement
7-inch	13.4	Prime	0	750	-----	-----
4 1/2-inch	9.5	H-40	0	1200	1190 - 1200	10



# PERMIT TO DRILL

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

To: Duval Corporation (OPERATOR)

to drill a well to be known as

Duval Corporation Well N. 57 (WELL NAME)

located 688.6' PNL & 2429.9' FWL

Section 10 Township 18N Range 26E, Apache County, Arizona.

The N. A. 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 First day of July, 1976.

OIL AND GAS CONSERVATION COMMISSION

By W. B. [Signature]  
EXECUTIVE SECRETARY

PERMIT N<sup>o</sup> 665

RECEIPT NO. 0678  
API No. 02-001-20221

State of Arizona  
Oil & Gas Conservation Commission  
Permit to Drill

FORM NO. 27

SAMPLES ARE REQUIRED

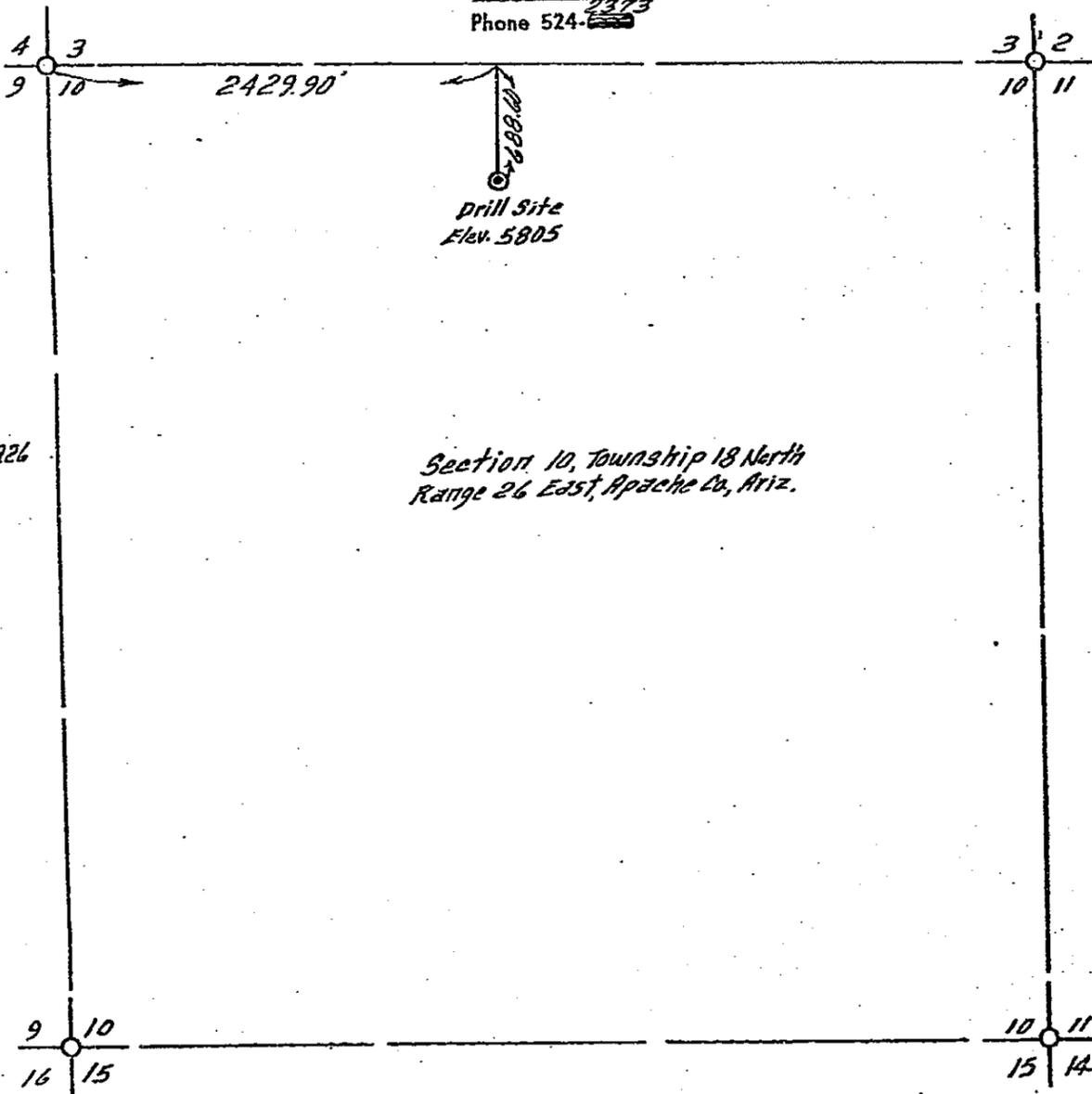
*Baldwin Surveying Company*

TROY BALDWIN — REGISTERED LAND SURVEYOR

~~Box 196~~

Holbrook, Arizona 86025

Phone 524-~~2373~~

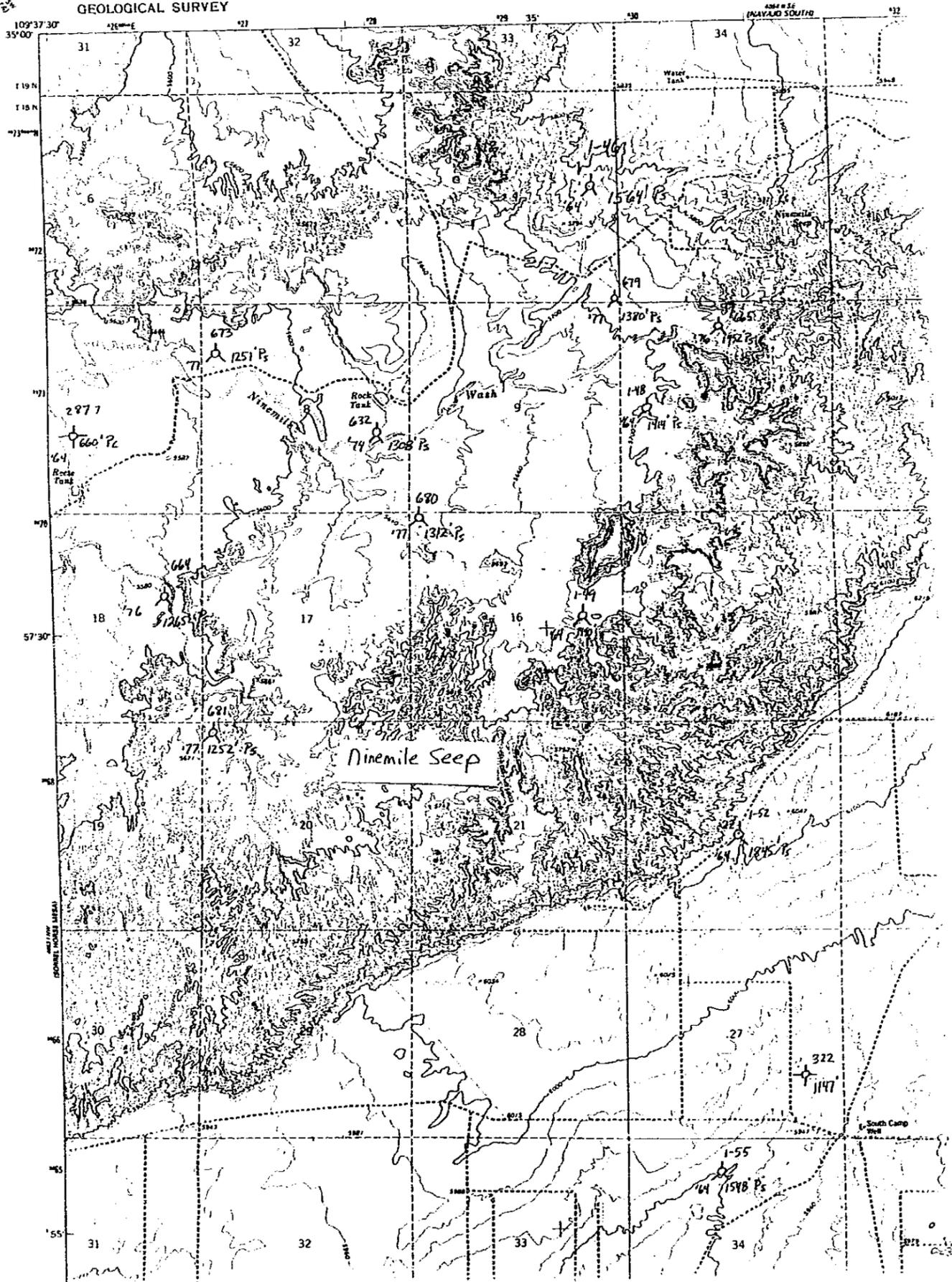


*Section 10, Township 18 North  
Range 26 East, Apache Co, Ariz.*

**DRILL SITE LOCATION  
FOR: DUVAL CORP.  
TUCSON, ARIZONA**



DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY



July 1, 1976

Mr. B. G. Messer  
Duval Corporation  
4715 East Eort Lowell Road  
Tucson, Arizona 85712

RE: Duval Corporation Well No. 57  
NE/NW/4 Sec. 10, T18N, R26E  
Apache County Permit No. 665

Dear Mr. Messer:

Enclosed please find Receipt No. 0678 covering your \$25.00 filing fee.  
Also enclosed is your approved Application To Drill and Permit To Drill  
No. 665.

Very truly yours,

W. E. Allen, Director  
Enforcement Section

Encs.

