

WELL PLUGGING RECORD

STATE OF KANSAS
STATE CORPORATION COMMISSION

Give All Information Completely
Make Required Affidavit
Mail or Deliver Report to:
Conservation Division
State Corporation Commission
800 Bitting Building
Wichita, Kansas

FORMATION PLUGGING RECORD

Strike out upper line
when reporting plug-
ging off formations.

Pratt County, Sec. 1 Twp. 27 Rge. (E) 13 (W)

Location as "NE $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ " or footage from lines C W/2 SW/4 SW/4

Lease Owner Skelly Oil Company

Lease Name Helmke "A" Well No. 1

Office Address Box 1650, Tulsa, Oklahoma

Character of Well (completed as Oil, Gas or Dry Hole) Oil

Date well completed December 30, 19 40

Application for plugging filed December 20, 19 48

Application for plugging approved December 22, 19 48

Plugging commenced December 11, 19 48

Plugging completed December 20, 19 48

Reason for abandonment of well or producing formation Depleted oil well

If a producing well is abandoned, date of last production December 1, 19 48

Was permission obtained from the Conservation Division or its agents before plugging was com-
menced? Yes 4367'

Name of Conservation Agent who supervised plugging of this well C. D. Stough PB

Producing formation Lansing Lime Depth to top 3736' Bottom 3800' Total Depth of Well 3800 Feet

Show depth and thickness of all water, oil and gas formations.

OIL, GAS OR WATER RECORDS

CASING RECORD

Formation	Content	From	To	OD Size	Put In	Pulled Out
Arbuckle Lime	Oil	4355'	4367'	10-3/4"	397'0"	None
Simpson Dolomite	Gas	4278'	4285'	7"	4289'0"	3111'2"
Lansing Lime	Oil	3886'	3893'	4-1/2"	788'0"	None

Describe in detail the manner in which the well was plugged, indicating where the mud fluid was placed and the method or methods used in introducing it into the hole. If cement or other plugs were used, state the character of same and depth placed, from _____ feet to _____ feet for each plug set.

Sand 3800' to 3725'
 25 sacks of cement 3725' to 3700'
 Mud laden fluid 3700' to 250'
 200 sacks cement 250' to 200'
 Mud laden fluid 200' to 20'
 10 sacks of cement 20' to 6'
 Surface soil 6' to 0'

RECEIVED

JAN 7 - 1949 1-7-49

STATE CORPORATION
COMMISSION
KANSAS

(If additional description is necessary, use BACK of this sheet)

Correspondence regarding this well should be addressed to Skelly Oil Company
Address Box 391, Hutchinson, Kansas

STATE OF Kansas COUNTY OF Reno, ss.
H. E. Wamsley (employee of owner) of the above-described well,

being first duly sworn on oath, says: That I have knowledge of the facts, statements, and matters herein contained and the log of the above-described well, as filed and that the same are true and correct. So help me God.

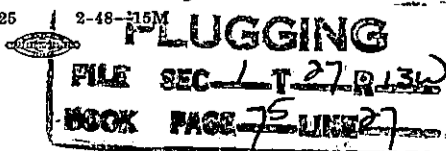
(Signature) *H. E. Wamsley*

Box 391, Hutchinson, Kansas (Address)

SUBSCRIBED AND SWORN to before me this 6th day of January, 19 49

My commission expires April 7, 1951

Josephine Z Johnson
Notary Public.



COPY

SKELLY OIL COMPANY

REPORT OF CHANGE IN WELL RECORD

Give complete description of all cleaning out, deepening, plugging back and fishing jobs, changes in casing, material lost in hole, etc., not recorded in original well record.

LEASE NAME Helmske "A" WELL NO. 1

CLEANING OUT RECORD				PLUGGING BACK OR DEEPENING RECORD			
Date commenced.....	19.....			Date commenced.....	August 20, 19 47		
Date completed.....	19.....			Date completed.....	October 18, 19 47		
Cleaned out from.....	to..... T. D.....			Plugged back to from	4287' to 4158' T.D. 4158'		
Prod. before.....	bbls. oil.....	bbls. water.....	cu. ft. gas.....	Prod. before.....	0 bbls. oil.....	0 bbls. water.....	26 M cu. ft. gas.....
Prod. after.....	bbls. oil.....	bbls. water.....	cu. ft. gas.....	Prod. after.....	3 bbls. oil.....	7 bbls. water.....	— cu. ft. gas.....
Kind of tools used:.....				Kind of tools used:.....	Cable		
Tools owned by:.....				Tools owned by:.....	Flournoy Drilling Company		

ACID AND SHOT RECORD

Date	8/29/47	8/30/47	9/9/47	
Size shot	1000 Gals. Qts.	2500 Gals. Qts.	25 Qts.	Qts.
Shot between	4254 Ft. and 4268 Ft.	4254 Ft. and 4268 Ft.	4264 Ft. and 4254 Ft.	Ft. and Ft.
Size of shell			3"	See remarks for
Put in by (Co.)	Dowell Inc.	Dowell Inc.	Indept.-East.	remaining treat-
Length anchor				Ments
Distance below casing				
Damage to casing or casing shoulder	None	None	None	

CHANGES IN CASING RECORD

SIZE	Wt.	Thds.	Where Set	PULLED OUT				LEFT IN			KIND	Cond'n	CEMENTING	
				Jts.	Feet	In.	Jts.	Feet	In.	Sacks Used			Method Employed	
Cemented off perforations from 4278' to 4285'														
4 1/2"														
4 1/2" OD casing liner perforated with 59 holes from 4254' to 4264'														
4 1/2" OD casing liner perforated with 94 holes from 4254' to 4268', cemented off;														
12 holes from 3889'-93', 34 holes from 3886'-93'														

Liner set at..... Length..... Perforated at.....

Packer set at..... Size and kind.....

REMARKS (Give review of work accomplished and any other comment of interest)

(Use reverse side for continuation of remarks and for formation record).

JAN 7 - 1949

ST. JOHNS OIL CORPORATION
KANSAS

Superintendent.

On August 20, rigged up cable tools of Flournoy Drilling Company and pulled tubing and rods. On August 22, 1947, ran Baker cement retainer on 2 1/2" tubing and set retainer at 4220', then cemented off perforations from 4278' to 4285' with 125 sacks of cement by Halliburton, TP-3500#. On August 26, bailed hole down to top of cement retainer and hole tested dry. Drilled cement retainer and cement plug to 4269 1/2' SLM, and cement job tested OK.

On August 28, perforated 4 1/2" OD casing liner by Lane-Wells from 4254' to 4268' with 94 holes, no show of oil, gas, or water.

On August 29, ran 2" tubing and treated with 1000 gallons of Dowell "XF-18" acid as follows:

ACID TREATMENT NO. 5 - Between 4254' and 4268'

Treatment put in 8/29/47 by Dowell Inc., using 1000 gallons of acid and 159 barrels of water to fill hole and to flush.

TIME	CP	TP	REMARKS
12:30 PM			Started water in hole
1:17 PM	900#	900#	Started acid in hole
1:30 PM	300#	250#	700 gallons of acid in hole, on bottom, started pump
1:39 PM	0#	Vac.	1000 gallons of acid in hole and started flush
1:48 PM	Vac.	Vac.	Flushed hole with 20 barrels of water and treatment completed

After acid treatment swabbed through 2" tubing 12 hours, 175 barrels of water and swabbed to bottom; next 5 hours swabbed 1 barrel of water per hour off bottom, no show of oil, slight show of gas. On August 30, treated with 2500 gallons of Dowell "XF-16" acid as follows:

ACID TREATMENT NO. 6 - Between 4254' and 4268'

Treatment put in 8/30/47 by Dowell Inc., using 2500 gallons of Dowell acid and 150 barrels of water to fill hole and to flush.

TIME	CP	TP	REMARKS
2:25 PM			Filled hole with 130 barrels of water
2:34 PM	Vac.	Vac.	700 gallons of acid in hole, on bottom
2:48 PM	Vac.	Vac.	2500 gallons of acid in hole and started flush
2:58 PM	Vac.	Vac.	Flushed hole with 20 barrels of water and treatment completed

After acid treatment swabbed through 2" tubing 12 hours, 150 barrels of water; then swabbed off bottom 12 hours, 3 barrels of water per hour, 150' of water in hole with slight show of gas. On September 1, swabbed through 2" tubing 24 hours, 3 barrels of water per hour, no oil or gas showing. On September 2, cemented off perforations in 4 1/2" liner from 4254' to 4268' with 10 sacks of cement by Halliburton.

On September 5, bailed the hole down and drilled cement plug to 4264'. On September 7, perforated 4 1/2" OD casing liner with 59 holes from 4254' to 4264', show of oil at 4258'. Bailed and tested 6 hours, 1/2 gallon of oil and 1 gallon of water per hour.

On September 9, shot with 25 quarts of nitro-glycerin from 4264' to 4254', using 1 - 15 quart 3" shell with 10 quarts dumped on top of shell and Zero Hour Bomb. Shot tamped with 150' of Joplin chat and went off at 1:35 A.M. 9/10/47. Cleaned out after shot to 4261' and tested 1 barrel of oil and 1 barrel of water in 24 hours.

On September 15, ran 2" tubing and plugged back from 4264' to 4158' SLM with 25 sacks of cement by Halliburton. On September 18, bailed the hole dry and perforated 4 1/2" OD liner by Lane-Wells with 12 holes from 3889' to 3893', and hole filled 300' with water in 30 minutes, bailed 12 hours and exhausted water. On September 20, perforated 4 1/2" liner with 34 holes by Lane-Wells from 3893' to 3886', no shows. Ran 2" tubing and treated with 1000 gallons of Dowell "XF-16" acid as follows:

ACID TREATMENT NO. 7 - Between 3886' and 3893'

Treatment put in 9/20/47 by Dowell Inc., using 1000 gallons of acid and 150 barrels of water to fill hole and to flush.

TIME	CP	TP	REMARKS
4:35 PM			Filled hole with 134 barrels of water
4:48 PM	300#	100#	670 gallons of acid in, on bottom
5:00 PM	1000#	800#	700 gallons of acid in, SD to repair leak
5:40 PM	1000#	800#	1000 gallons of acid in hole and started flush
5:55 PM	925#	925#	Flushed hole with 16 barrels of water and treatment completed.

On September 21, swabbed through 2" tubing, 150 barrels of water used in loading hole; then swabbed 10 hours, 3 barrels of oil per hour and no water. On September 22, treated with 4000 gallons of Dowell "XF-16" acid as follows:

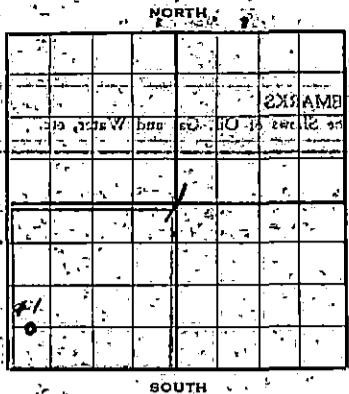
ACID TREATMENT NO. 8 - Between 3886' and 3893'

Treatment put in 9/22/47 by Dowell Inc., using 4000 gallons of acid and 150 barrels of water to fill hole and to flush.

TIME	CP	TP	REMARKS
1:28 PM			Filled hole with 134 barrels of water
2:38 PM	350#	250#	670 gallons of acid in hole
2:47 PM	900#	800#	1000 gallons of acid in hole
2:57 PM	1000#	900#	1500 gallons of acid in hole
3:15 PM	950#	850#	2500 gallons of acid in hole
3:25 PM	750#	650#	3200 gallons of acid in hole
3:35 PM	750#	650#	4000 gallons of acid in hole and started flush
3:45 PM	700#	700#	Flushed hole with 96 barrels of water to complete

After acid treatment swabbed through 2" tubing 4 hours, 3 barrels of oil and 3 barrels of water per hour, slight increase in gas. On September 24, swabbed through 2" tubing 12 hours, 60 barrels of oil and 22 barrels of water; then swabbed through 2" tubing 6 hours, 22 barrels of oil and 2 barrels of water.

SKELLY OIL COMPANY



MOTTO: Well Record

Lease Name and No. **E. H. HELME #10455** Well No. **1** Elev. **1905' D**
 Lease Description **SW/4, Section 1-275-13W**
Pratt County, Kansas

Location made **Oct. 11, 1940** by **Pratt County Engineer**
 feet from North line _____ feet from East line **SW/4**
680 feet from South line **580** feet from West line of **Sec. 1**

Rig com'd **Oct. 15, 1940** Rig comp'd **Oct. 18, 1940** Drlg. com'd **Oct. 23, 1940** Drlg. comp'd **Dec. 28, 1940**
 Rig Contractor **Rig built by drilling contractor**
 Drilling Contractor **Ruso Drilling Company, Tulsa, Oklahoma.**

Rotary Drilling from **Top** to **4255'** Cable Tool Drilling from **4255'** to **4367'**
 Commenced Producing **Dec. 30, 1940** Initial Prod. before ~~shot~~ acid **Tested 1/4 bbl. oil per hr.** Bbls.
 Initial Prod. after ~~shot~~ acid **5,668 (Indicated productivity)** Bbls.
 by E.M. showing **47.66% water to establish 24 hr. S.C.C.**
 Volume potential of **1572 bbls.** Cu. ft.

Dry Gas Well Press _____ Volume _____ Cu. ft.
 Casing Head Gas Pressure _____ Volume _____ Cu. ft.
 Braden Head **(10-3/4" x 17" OD)** Gas Pressure _____ Volume _____ Cu. ft.
 Braden Head **(7" x 1-1/2" OD)** Gas Pressure _____ Volume _____ Cu. ft.

PRODUCING FORMATION **Siliceous Lime** Top **4355'** Bottom **4367'** TOTAL DEPTH **4367'**
 (Name)

CASING RECORD

Size	Wt.	Thds.	Where Set	PULLED OUT			LEFT IN			KIND	Cond'n	CEMENTING	
				Jts.	Feet	In.	Jts.	Feet	In.			Sacks Used	Method Employed
10-3/4" OD	33 1/2	8	398				19	597	0	Lapweld	"A"	250	Halliburton
7" OD	26 1/2	10					125	5498	0	Seamless	"A"		
" "	20 1/2	10	4254				16	791	0	R.B.W.	"A"	125	Halliburton
4-1/2" OD	9 1/2	8 RT	4355	117	3602	3	24	788	0	Seamless	"A"	75	Halliburton
(10-3/4" casing set 5' in cellar and 7' casing cased to derrick floor)													
(Used one 7" OD and one 4 1/2" OD Combination Guide and Float Shoe)													

4-1/2" OD Liner Set at **4355'** Length **788'** Perforated at _____
 Liner Set at _____ Length _____ Perforated at _____
 Packet Set at _____ Size and Kind _____
 Packet Set at _____ Size and Kind _____

SHOT OR ACID TREATMENT RECORD

	FIRST	SECOND	THIRD	FOURTH
Date	Dec. 30, 1940	Dec. 30, 1940	Jan. 29, 1941	March 9, 1941
Acid Used	500 Gals.	1000 Gals.	500 Gals.	1000 Gals.
Size Shot	20/30	20/30	(Jetting Job)	(Jetting Job)
Shot Between	4355 Ft. and 4367 Ft.	4355 Ft. and 4367 Ft.	4355 Ft. and 4367 Ft.	4355 Ft. and 4356 Ft.
Size of Shell				
Put in by (Co.)	Morgan	Morgan	Halliburton	Halliburton
Length anchor				
Distance below Cas'g.				
Damage to Casing or Casing Shoulder	None	None	None	None

SIGNIFICANT GEOLOGICAL FORMATIONS

NAME	Top	Bottom	GAS		OIL		REMARKS
			From	To	From	To	
Jansing Lime	3756						
Viola Lime	4162						
Simpson Shale	4259						
Simpson Dolomite	4253	4254	4263				Good por. & Sat. 4254'-56', spray oil, 4265'-68' - Gas-16,272 M C F
Siliceous Lime	4355				4355	4367	Pay formation - Open hole 4355-56 honey-combed cement 4356-57'

CLEANING OUT RECORDS

	DATE COMMENCED	DATE COMPLETED	PROD. BEFORE	PROD. AFTER	REMARKS
1st					See Reverse for other details.
2nd					
3rd					
4th					

PLUGGING BACK AND DEEPENING RECORDS

	Date Commenced	Date Completed	No. Feet Plugged Back or Deepened	Prod. Before	Prod. After	REMARKS
1st						See Reverse for other details.
2nd						
3rd						
4th						

PLUGGING
 FILE SEC **L T 27 R 13W**
 BOOK PAGE **75** LINE **27**

(See Reverse for Record of Formation)

RECORD OF FORMATIONS

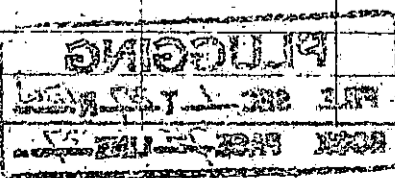
FORMATION	TOP	BOTTOM	REMARKS
Surface soil and sand	0	160	
Shale and shells	160	398	Set and cemented 20-5/4" OD, 25' SS and 20' RW Steel casing at 398' with 250 sacks of cement.
Red bed	398	695	
Anhydrite	695	725	
Shale	725	755	
Salt and shale	755	875	
Red bed and shale	875	1170	
Shale and shells	1170	1320	
Shale	1320	1705	
Lime	1705	1730	
Sticky shale	1730	1755	
Lime	1755	2010	
Shale	2010	2140	
Lime	2140	2175	
Sticky shale	2175	2210	
Lime	2210	2235	
Shale	2235	2280	
Lime	2280	2300	
Shale	2300	2485	
Lime	2485	2535	
Shale	2535	2605	
Lime	2605	2655	
Shale	2655	2850	
Lime	2850	3500	

FORMATION	TOP	BOTTOM	REMARKS
Balek shale	3500	3515	
Lime	3515	3696	
Shale	3696	3765	
Lime	3765	3825	Top Lansing Line at 3736'
Shale	3825	3840	
Lime	3840	4110	
Chert and lime	4110	4145	
Shale	4145	4156	
Chert and shale	4156	4191	
Chert	4191	4201	Top Viola Line at 4162'
Grey dolomite with little chert	4201	4218	
Hard dark chert with little dense dolomite	4218	4235	
Grey crystalline lime with little sand	4235	4259	
Green shale	4259	4253	Top Simpson shale at 4235'
Dense grey sandy dolomite	4253	4254	Top Simpson dolomite at 4253'
Medium soft coarsely crystalline and sandy dolomite	4254	4256	Slight porosity and stained

Set and cemented 20" OD, 25' SS and 20' RW Steel casing at 4254' with 125 sacks of cement. Finished cementing at 6:30 PM, 11/16/40 and shut down until 11/25/40 waiting for drilling in unit. On this date started moving in and rigging up cable tools. Finished rigging up and bailed the hole down to top cement plug on Nov. 29th. Drilled cement plug to 4248' and 7" casing tested OK. Reloaded hole with 1000' of water, drilled bottom plug and cleaned out to bottom and well cleaned itself. Shut well in and tied down master gate then opened well and gas gauged 2,555 M cubic feet, then drilled ahead as follows:

FORMATION	TOP	BOTTOM	REMARKS
Grey sandy dolomite	4256	4253	Porous, no increase in gas
No sample	4253	4262	
No sample	4262	4263	Gas increased to 9,451 M cu. ft.
Grey crystalline and sandy dolomite	4263	4264	Shut well in for 8 hours and showed 1270' casing pressure. Blew well down and drilled ahead.
Same	4264	4265	Porous, gas gauged 15,600 M cu. ft.
Grey & brown sandy dolomite	4265	4266	Gas gauged 15,500 M cu. ft.
No sample	4266	4267	Little porosity and saturation - Spray of oil, no increase in gas.
No sample	4267	4268	Slight increase in oil - Gas gauged 16,272 M cubic feet

FORMATION	TOP	BOTTOM	REMARKS
Grey sandy dolomite	4268	4270	Shut down at this point and installed separator and test tank. On Dec. 4th opened well into separator and after flowing 18 hours, did not fill separator with oil, gas gauged 16,200 M cu. ft. On Dec. 6th, loaded hole with fresh water, 20 sacks of aquagel and 15 sacks of Baroid then drilled ahead.
Same	4270	4275	Slight porosity and little stain
Grey sand w/ 50% shale	4275	4275	Slight porosity and stained
Grey sand w/ 40% dark grey pyritic dolomite	4275	4278	
Grey & brown sand w/ 50% shale	4278	4281	Porous and oil stained (hard)
Grey sand w/ trace of dolomite	4281	4283	Little porosity and saturation
Coarse grey sand	4283	4283	Slight porosity, no saturation
Dark shale with little pyritic dolomite	4283	4297	
Dark shale w/ 50% grey sand	4297	4300	
Dark pyritic shale with trace of grey sand	4300	4303	
Same	4303	4306	
Shale	4306	4344	
Lime	4344	4346	
Coarse grey sand w/ little shale	4346	4350	



Coarse grey sand w/ pyrites and shale	4350	4353	
Dark green shale w/ little colitic chert & coarsely crystalline dolomite	4353	4355	Top Siliceous (Arbuckle) Line--4353'

Ran & set 4 1/2" OD, 2 1/2" SS casing at 4355'. Bailed the hole down to 300' from bottom and water broke in around casing. Reloaded hole with fresh water and cleaned out to bottom then drilled ahead as follows:

Grey crystalline dolomite, hard	4355	4356	No porosity or saturation
---------------------------------	------	------	---------------------------

On Dec. 20th, set and cemented 4 1/2" OD casing at 4355' with 75 sacks of cement. Finished cementing at 6:30 PM, 12/20/40 and SD 500. Started up on Dec. 26th, bucked off 4 1/2" casing at 3567', leaving 788' of 4 1/2" OD blind liner cemented in the hole between 3567' and 4355'. Bailed hole down to 3567' and top of liner tested dry. Strung up tools and drilled cement plug to 4320' and liner tested OK. Ran in 700' of fresh water and drilled bottom plug then bailed the hole dry, cleaned out to bottom and cement job tested OK. Show of free oil on cleaning out to bottom, no gas.

DRILLED:

Dense grey coarsely crystalline dolomite	4356	4359	No saturation
Grey & brown coarsely crystalline dolomite w/30% white chert	4359	4362	Slight porosity & stained
Grey & brown coarsely crystalline dolomite	4362	4365	Slight porosity & saturation
Grey coarsely crystalline dolomite	4365	4367	Slight porosity & saturation, hard from 4365' to 4367'

TOTAL DEPTH - 4367'

Tested 1/4 barrel of oil & no water per hour. 300' OIH in 9 hours. Ran 2" tubing on Dec. 29th and set tubing at 4367'. On Dec. 30th, treated with acid as follows:

ACID TREATMENT NO. 1 - Between 4355' and 4367'

Treatment put in by Morgan Acid Co., 12/30/40, using 500 gallons of Morgan acid and 142 barrels of oil to fill hole and flush.

TIME	OP	TP	REMARKS:
11:20 AM			Filled hole with 122 barrels of oil then started acid in
11:37 "	300#	0#	500 gallons of acid in hole then put in 250 gallons of oil to put acid on bottom. Let acid set on bottom 15 minutes
12:19 PM	900#	600#	5 barrels of oil in to flush
12:44 "	750#	750#	20 barrels of oil in to complete treatment.

After acid treatment, swabbed 120 barrels of cut oil and acid water thru tubing into pits then reacidized as follows:

ACID TREATMENT NO. 2 - Between 4355' and 4367'

Treatment put in by Morgan Acid Co., 12/30/40, using 1000 gallons of Morgan acid and 95 barrels of oil to fill hole and flush.

TIME	OP	TP	REMARKS:
6:45 PM			Filled hole with 60 barrels of oil then started acid in
7:02 "	450#	0#	712 gallons of acid in hole
7:12 "	400#	15" Vac.	1000 gallons of acid in hole then started oil in
7:20 "	660#	450#	5 barrels of oil in
7:36 "	600#	200#	17 barrels of oil in
7:51 "	300#	300#	35 barrels of oil in hole to complete treatment

After acid treatment, swabbed thru 2" tubing 5 hours, 30 barrels of oil per hour and were unable to swab below 2800' from bottom. On Dec. 31st, continued swabbing test 7 hours, estimated 200 barrels of emulsified oil into pits. Showing 10% water at start of test and 15% water at end of test, gravity of oil 39.1 degrees corrected. Could not swab below 2800' from bottom. On Jan. 2nd, pulled 2" tubing and reran with barrel and then ran rods. POB 4 hours on Jan. 2nd, 70 barrels of oil and 53 barrels of water on private Echometer test which indicated 24 hour productivity of 4,640 barrels.

On Jan. 3rd, POB 12 hours, 163 barrels of fluid, 47.66% water on draw down potential test by Echometer which indicated 24 hour productivity of 6,668 barrels of fluid to establish 24 hour S.G.C. potential of 1,572 barrels. This potential allowed 27 barrels per day for the remainder of January, 1941.

The well was shut down for pumping equipment until January 29th when it was decided to run balance cement job in effort to shut off some of the bottom hole water. On this date, circulated thru 2" tubing with fresh water then acidized with 500 gallons of Halliburton acid thru jet gun between 4365' and 4367'. After acid treatment, cemented with 35 sacks of cement, picked up tubing 150' and let cement set for 4 hours then lowered tubing back to bottom and recemented with 40 sacks. Picked tubing up to 4327', reversed circulation then lowered tubing to 4353' and reversed circulation again then shut down waiting on cement to set.

On Feb. 2nd, ran tubing to bottom and found top of cement at 4353' with 3600' of fluid in hole. Finished filling hole with water and pressured up casing to 500# and formation began to take fluid, then ran liner barrel on rods and pumped 16 hours into pits to clean up hole. Then pumped 10 hours, 2 1/2 barrels of fluid per hour showing 50% fresh water at beginning of test and declining to 1% fresh water and 1% BS during last hour of test. During the next 23 days the well was pumped as follows on sheet No. three:

DATE	HOURS PUMPED	BARRELS FLUID	PERCENT BS & WATER	REMARKS
Feb. 3, 1941	8	26.79	2.1	
3	4	27.36	2.4	
4	10	29.07	2.4	
4	6	21.66	2.1	
5	10	29.38	2.7	
5	6	20.62	2.8	
6	10	27.36	2.7	
6	6	19.53	2.2	
7	10	28.5	2.0	
7	7	19.95	2.3	
8	10	26.00	2.3	
9	8	21.66	2.1	
9	8	21.66	1.25	
9	6	19.95	2.38	Shut down on this date to tear out drilling in front and install portable pumping equipment.
14	10	55.75	2.0	
15				Shut down for tank room
16	10	52.24	2.0	
17	8	34.90	2.0	
18	7	26.00	2.0	
19				Shut down for tank room
20	10	43.52	2.0	
21	10	29.07	2.0	
22	12	35.16	1.5	
23	12	40.84	1.5	
24	10	45.00	0.2	
25	12	34.20	0.2	
26-27-28				Shut down for tank room
Mar. 1	12	60.81	0.2	

On March 1st, shut down for tank room at which time it was decided to pull tubing and jet cement further. Shut down until March 9th, then run tubing with Halliburton jet gun. Circulated oil out of hole with fresh water then jetted from 4353' to 4356', with 1000 gallons of 7% Halliburton acid. Then ran rods and POB 30 hours to rid hole of water used during acid treatment. During the next 6 days the well was pumped as follows:

PRESENT TOTAL DEPTH - 4356' **

DATE	HOURS PUMPED	BARRELS FLUID	PERCENT BS & WATER	REMARKS
Mar. 12	20	94.58	0.75	
13	22	82.20	0.75	
14-15				Shut down for tank room
16	20	87.00	0.75	
17	20	90.00	0.75	

Potential test taken on January 3, 1941, will remain in effect until the S.O.C. requires a retest potential be taken.

SLOPE TEST DATA

Depth	Angle	Horiz.	Vert.
250'	0		
500'	0		
750'	0		
1000'	1/2	2.2	.0
1250'	1	4.4	.1
1500'	0		
1750'	1/2	2.2	.0
2000'	1/2	2.2	.0
2250'	1/2	2.2	.0
2500'	1/2	2.2	.0
2750'	1/2	2.2	.0
3000'	1/2	2.2	.0
3250'	1/2	2.2	.0
3500'	1/2	2.2	.0
3750'	1	4.4	.1
4000'	1/2	2.2	.0
4250'	1/2	2.2	.0
Total Deflections		33.0	.2

** It will be noticed in the body of the log that after the Halliburton balance cement job, cement was jetted to a TD of 4353' with the 4 1/2" blind liner set at 4356'. From this jetted depth the well was produced for several days, which seems unreasonable due to the fact cement remained in the bottom 3' of the 4 1/2" liner. However, since the measurements to this jetted depth of 4353' were carefully taken before and after the production test, the only reason for being able to produce the well from the Siliceous Line at this point is due to the fact that the cement in the bottom of the liner and below the liner, is evidently porous and honey-combed allowing oil to come into the hole from below the bottom of the liner.

ANALYSIS OF WATER

Sample of water taken at a TD of 4367'
 Analysis by Skelly Oil Company Laboratories
 Analysis: Parts per Million
 Chlorides expressed as Cl 53,216
 Total Dissolved Solids 57,470
 Sulphates expressed as SO₄ 1,453.89

CASING TALLY

10-3/4"	7"OD	7"OD	7"OD	4-1/2"OD Liner
22 1	30 5	31 0	32 0	32 5
22 1	31 2	28 10	31 1	32 5
20 2	30 9	28 6	31 3	32 1
22 2	30 2	31 1	31 3	30 11
22 5	30 8	29 1	30 0	32 8
22 2	31 3	31 3	31 4	30 7
22 2	31 2	30 10	31 11	31 0
22 3	29 5	31 8	30 8	31 1
8 11	31 0	31 0	30 9	31 7
20 9	30 0	31 10	30 0	31 10
21 8	26 5	31 7	31 10	31 2
22 2	32 6	31 5	31 4	32 3
22 2	33 1	31 7	30 2	31 9
22 0	30 1	30 1	31 3	31 9
22 4	29 10	29 9	30 9	31 5
20 0	31 6	31 6	31 2	31 6
22 2	30 5	30 9	30 1	32 7
22 4	32 10	31 4	31 3	32 5
17 0	32 1	27 1	31 0	31 10
	30 11	31 4	28 5	30 10
	31 4	27 0	31 1	31 0
	31 6	31 0	29 10	25 4
	31 6	31 6	30 4	30 11
	31 4	31 3	31 2	31 7
	31 7	31 0	31 3	35 1
	31 1	30 8	28 7	
	31 5	31 3	31 3	
	31 6	29 7	23 10	
	31 11	30 6	31 9	
	32 5	31 7	31 11	
	31 8	30 6	30 9	
	30 7	28 9	24 4	
	30 9	31 9	29 10	
	31 4	31 9	31 7	
	31 2	31 2	32 4	
	30 9	31 2	31 7	
	30 10	31 1	31 5	
	29 4	31 1	31 11	
	31 5	31 2	23 4	
	31 7	29 11	23 7	
		31 2	29 3	
	12 10	29 11		
	17 8	29 8		
	31 4	31 6		
	31 2	31 2		
	31 0	31 6		
	31 6	31 5		
	31 4	30 6		

RECORDED
 JAN 7 - 1949
 CORPORATION
 COMMISSION
 KANSAS

4289' 0" 788' 0"

... ..

SKELLY OIL COMPANY

REPORT OF CHANGE IN WELL RECORD

Give complete description of all cleaning out, deepening, plugging back and fishing jobs, changes in casing, material lost in hole, etc., not recorded in original well record.

LEASE NAME Helmke "A" WELL NO. 1

CLEANING OUT RECORD	PLUGGING BACK OR DEEPENING RECORD
Date commenced..... 19.....	Date commenced..... <u>October 30,</u> 19 <u>44</u>
Date completed..... 19.....	Date completed..... <u>November 1,</u> 19 <u>44</u>
Cleaned out from..... to..... T. D.....	Plugged back or deepened <u>from 4356'</u> to <u>4287'</u> T. D. <u>4287'</u>
Prod. before..... bbls. bbls. cu. ft. oil water gas	Prod. before..... <u>2</u> bbls. <u>32</u> bbls. cu. ft. oil water gas
Prod. after..... bbls. bbls. cu. ft. oil water gas	Prod. after..... <u>0</u> bbls. <u>0</u> bbls. <u>6,041 M</u> cu. ft. oil water gas
Kind of tools used:.....	Kind of tools used: <u>Well servicing unit</u>
Tools owned by:.....	Tools owned by: <u>Skelly Oil Company</u>

SHOT RECORD

Date	Size shot	Qts.	Qts.	Qts.	Qts.
Shot between	Ft. and	Ft.	Ft. and	Ft.	Ft. and
Size of shell					
Put in by (Co.)					
Length anchor					
Distance below casing					
Damage to casing or casing shoulder					

CHANGES IN CASING RECORD

SIZE	Wt.	Thds.	Where Set	PULLED OUT			LEFT IN			KIND	Cond'n	CEMENTING	
				Jts.	Feet	In.	Jts.	Feet	In.			Sacks Used	Method Employed
<u>4 1/2" OD casing liner perforated by Lane-Wells with 55 holes from 4278'-85'</u>													

Liner set at..... Length..... Perforated at.....
 Packer set at..... Size and kind.....

REMARKS (Give review of work accomplished and any other comment of interest) As this well had depleted in oil production from the Arbuckle Lime to the point that it was producing 2 barrels of oil per day, along with 32 barrels of water, it was decided to plug back and test the Simpson zone which had good indications of gas production during the drilling of the well.

On October 30, 1944, pulled rods and plugged back through 2" tubing by

(Use reverse side for continuation of remarks and for formation record).

STATE CORPORATION
 COMMISSION
 NATIONALS

[Handwritten Signature]

Superintendent.

REMARKS (Continued) Halliburton with 45 sacks of cement from 4356' to 4287'. On October 31, perforated 4½" casing liner with 55 holes by Lane-Wells from 4278' to 4285', no shows. After perforating, treated with 500 gallons of Morgan acid as follows:

ACID TREATMENT NO. 3 - Between 4278' and 4285'

Treatment put in October 30, 1944, by Morgan Acid Co. using 500 gallons of acid, 110 barrels of water and 5 barrels of oil.

TIME	CP	TP	REMARKS
11:55 AM			Filled hole with 110 barrels of water
12:06 PM			500 gallons of acid in hole, started oil flush
12:33 PM	1000#	675#	5 barrels oil in tubing
4:30 PM	1400#	1075#	Circulated out acid as formation failed to take it

RECORD OF FORMATIONS

FORMATION	TOP	BOTTOM	REMARKS
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Indicate Casing Points, Describe Shows of Oil, Gas and Water, etc.

Formation would not take acid, circulated acid out of hole, then re-acidized with 500 gallons Morgan acid as follows:

ACID TREATMENT NO. 4 - Between 4278' and 4285'

Treatment put in October 31, 1944, by Morgan Acid Co. using 500 gallons acid, 110 barrels of water and 20 barrels of oil.

TIME	CP	TP	REMARKS
11:30 AM			Hole filled with 110 barrels of water
11:40 AM	250#		500 gallons of acid in hole
11:54 AM	1400#	1150#	5 barrels oil in tubing, on bottom
12:00 PM	1050#	800#	10 barrels oil in tubing
12:07 PM	900#	900#	20 barrels of oil in tubing and treatment complete

After acid treatment, ran rods and POB 3 hours, estimated 50 barrels of cut oil and acid water, then well started flowing. Flowed well into pits for 3 hours to clean up hole, estimated 85 barrels of cut oil and acid water. Loaded hole with water, pulled rods and connected up well head. Gas estimated 5,000 MCF while flowing.

On November 1, swabbed well in through 2" tubing and after hole was clean of water used in loading, gas gauged 2,500 MCF through 2" orifice with 400# back pressure on the tubing. Corrected to open flow, gas gauged 6,041 MCF, shut-in TP-860#.

J.C.C.

SKELLY OIL COMPANY

REPORT OF CHANGE IN WELL RECORD

Give complete description of all cleaning out, deepening, plugging back and fishing jobs, changes in casing, material lost in hole, etc., not recorded in original well record.

LEASE NAME Helms "A" WELL NO. 1

CLEANING OUT RECORD				PLUGGING BACK OR DEEPENING RECORD			
Date commenced.....	19.....			Date commenced.....	October 7, 1948		
Date completed.....	19.....			Date completed.....	December 20, 1948		
Cleaned out from.....	to.....	T. D.....		Plugged back or deepened from.....	to.....	T. D. PAA	
Prod. before.....	bbls. oil.....	bbls. water.....	cu. ft. gas.....	Prod. before.....	1 bbls. oil.....	5 bbls. water.....	cu. ft. gas.....
Prod. after.....	bbls. oil.....	bbls. water.....	cu. ft. gas.....	Prod. after.....	0 bbls. oil.....	45 bbls. water.....	cu. ft. gas.....
Kind of tools used:.....				Kind of tools used:.....	Cable		
Tools owned by:.....				Tools owned by:.....	Flournoy Drilling Co.		

ACID SHOT RECORD

Date	10/17/48						
Size shot	1000 gals. 7/8"			Qts.		Qts.	
Shot between	3766	Ft. and	3775	Ft. and	Ft.	Ft. and	Ft.
Size of shell							
Put in by (Co.)	Dowell						
Length anchor							
Distance below casing							
Damage to casing or casing shoulder							

CHANGES IN CASING RECORD

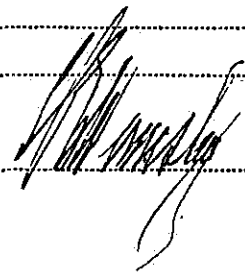
OD SIZE	Wt.	Thds.	Where Set	PULLED OUT			LEFT IN			KIND	Cond'n	CEMENTING	
				Jts.	Feet	In.	Jts.	Feet	In.			Sacks Used	Method Employed
7"	26.4	1074854'		1025111	239	117'	10355	12	33	0			
4 1/2" casing liner perforated with 63 holes from 3766'-3773', cemented off;													
Cemented off perforations from 3895' to 3896'													

.....Liner set at..... Length..... Perforated at.....

Packer set at..... Size and kind.....

REMARKS (Give review of work accomplished and any other comment of interest)

(Use reverse side for continuation of remarks and for formation record).



Superintendent.

On October 7, 1948, moved in cable tools of Journey Drilling Company, then pulled rods, pulled and reran 2" tubing.

On October 9, squeeze cemented off perforations from 3893' to 3896' with 100 sacks of cement, maximum 75-0%, and shut down for cement to set until October 12. On that date bailed the hole dry and began drilling cement plug. While attempting to bail hole, lost bailer in hole at 3415' on October 14. Recovered bailer and continued drilling cement plug to 3796'.

On October 15, bailed hole dry and cement job tested OK. Correction: TD-4158' equals PB TD-3800' SLL. Perforated 4 1/2" liner on October 16, by Lane-Wells with 63 holes from 3766' to 3775', very light seum of oil.

Ran 2" tubing and on October 16, tried to acidize with 1000 gallons of Dowell "XF-18" acid as follows:

ACID TREATMENT NO. 9 - Between 3766' and 3775'

Treatment put in 10/16/48 by Dowell Inc., using 1000 gallons of acid.

TIME	CP	IP	REMARKS
8:00 PM			Start acid in hole
8:07 PM	450	100	Acid on bottom, 630 gallons in hole
8:15 PM	400	50	Start Pump
8:45 PM	1100	800	No input - Bled off 10 gallons
10:00 PM	1500	1200	Bled off 42 gallons
10:15 PM	1500	1200	Bled off 126 gallons
12:00 AM	1500	1200	Bled off 42 gallons
1:00 AM	1500	1200	Bled off 42 gallons
6:30 AM	1500	1200	Shut down and circulated acid out

Formation would not take acid under 1500' pressure. Pumped out acid and swabbed out oil used to load hole. Then re-acidized with 1000 gallons of Dowell "XF-18" acid on October 16, as follows:

ACID TREATMENT NO. 10 - Between 3766' and 3775'

Treatment put in 10/17/48 by Dowell Inc., using 1000 gallons of acid and 136 barrels of oil to fill hole and flush.

TIME	CP	IP	REMARKS
4:30 PM			Filled hole with 128 barrels of oil
5:40 PM	1200	900	Acid on bottom
5:45 PM	1475	1175	Feeding
5:50 PM	1300	1000	42 gallons of acid in formation
6:00 PM	1375	1075	273 gallons of acid in formation
6:05 PM	1250	900	370 gallons of acid in formation, start flush
6:15 PM	1200	1000	340 gallons of acid in formation
6:25 PM	1075	950	750 gallons of acid in formation
6:36 PM	1000	1000	1000 gallons of acid in formation and treatment completed.

After acid treatment swabbed out oil used in treating. On October 18, swabbed 20 hours through 2" tubing, 73 barrels of oil and 34 barrels of water. On October 19, swabbed 24 hours, 22 barrels of oil and 50 barrels of water. On October 20, swabbed through 2" tubing 24 hours, 15 barrels of oil and 46 barrels of water.

On October 21, ran rods and put well on pump, and moved out cable tools. On October 23, POB 21 hours, 2 1/2 barrels of oil and 39 barrels of water. October 24, POB 22 hours, 1 barrel of oil and 40 barrels of water. October 25, POB 24 hours, 1/3 barrel of oil and 35 barrels of water. October 26, POB 24 hours, 3/4 barrel of oil and 36 barrels of water. October 27, POB 24 hours, 1 barrel of oil and 49 barrels of water.

The next thirteen days the well pumped as follows:

DATE	NUMBER HOURS	BARRELS OIL	BARRELS WATER
10-28-48	24	.37	35
10-29-48	24	3/4	36
10-30-48	24	0	45
10-31-48	24	.37	35
11-1-48	24	.37	35
11-2-48	24	0	45
11-3-48	24	.18	35
11-4-48	24	.17	30
11-5-48	24	0	45
11-6-48	24	.18	35
11-7-48	24	0	35
11-8-48	24	0	45
11-9-48	24	0	45
11-10-48	24	0	45
11-11-48	24	0	45
11-12-48	24	0	45

On November 12, the well was temporarily abandoned pending authorization to plug and abandon.

On December 11, 1948, moved in plugging machine of Barnes and Sons Pipe Pulling Company. Finished rigging up plugging machine on December 12, and plugged back with sand from 3800' to 3725', 25 sacks of cement from 3725' to 3700'. Shot 7" casing off at 3400' and casing would not move. Then shot casing off at 3342' and 3281', and casing would not move. On December 15, spotted 70 barrels of oil at 3280' in an attempt to loosen casing. Worked and pulled on casing to loosen until December 17, then shot casing off at 3220', 3160', and 3100', and casing started. Pulled

7"OD casing and recovered 102 joints (3111') of 26", 10V, J-55, R-2, seam-
less steel "C" condition casing, and continued plugging as follows:

Mud laden fluid	3700'	to	250'
200 sacks cement	250'	to	200'
Mud laden fluid	200'	to	20'
10 sacks of cement	20'	to	6'
Surface soil	6'	to	0'

Plugged and abandoned December 20, 1948.