This permit originally issued to General Energy, then owned by Emery Energy, now owned by Town Oil Co.

Missouri Oil and Gas Council

Form OGC-3

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

APPLICATION TO DRILL ☑ DEEPEN ☐ PLUG BACK ☐

for an oil well ☑ or gas well ☐

NAME OF COMPANY OR OPERATOR Town Oil Co. DATE 12/6/85

Route 4 (Address) Paola (City) KS 66071 (State)

DESCRIPTION OF WELL AND LEASE

Name of lease	Well number	Elevation (ground)
Jack Beary	56A	

WELL LOCATION (give footage from section lines)

165 ft. from (N) (S) sec. line 385 ft. from (E) (W) sec. line

WELL LOCATION 143225

Section 4 Township 46N Range 33W County CASS

Nearest distance from proposed location to property or lease line: 165 feet

Distance from proposed location to nearest drilling, completed or applied for well on the same lease: 220 feet

Proposed depth	Drilling contractor, name & address	Rotary or Cable Tools	Approx. date work will start
670			see note

Number of acres in lease: 24.5

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

Number of abandoned wells on lease: _____

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

No. of Wells: producing _____ injection _____ inactive _____ abandoned _____

Status of Bond

Single Well ☐ Amt. _____ Blanket Bond ☑ Amt. 20,000 ☑ ON FILE ☐ ATTACHED

Remarks: (If this is an application to deepen or plug back, briefly describe work to be done, giving present producing zone and expected new producing zone) use back of form if needed.

Proposed casing program:

amt.	size	wt /ft.	cem.
650'	4"	10.4	yes
20'	7¾"	22	yes

Approved casing -- To be filled in by State Geologist

amt	size	wt./ft	cem.
✓	✓	✓	✓
✓	✓	✓	✓

I, the undersigned, state that I am the Partner of the Town Oil (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 Rusty Town

Permit Number: 20101

Approval Date: 12/16/85

Approved By: Wallace B. Hunt BWW

Note: This Permit not transferable to any other person or to any other location.

Remit two copies to: Missouri Oil and Gas Council P.O. Box 250 Rolla, Mo. 65401

One will be returned for driller's signature

☑ Drillers log required

☑ E-logs required if run

☑ Core analysis required if run

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DEC 16 1985

MISSOURI OIL & GAS COUNCIL

☑ Drill stem test info. required if run

☐ Samples required

☑ Samples not required

WATER SAMPLES REQUIRED @

_____

_____

Approval of this permit by the Oil and Gas Council does not constitute endorsement of the geologic merits of the proposed well nor endorsement of the qualifications of the permittee.

3/12/82

MISSOURI OIL AND GAS COUNCIL

Form OGC - 3

APPLICATION FOR PERMIT TO DRILL, DEEPEN OR PLUG BACK

APPLICATION TO DRILL ☒ DEEPEN ☐ PLUG BACK ☐

NAME OF COMPANY OR OPERATOR General Energy Inc. of Linn Co DATE 11-25-80

P.O. Box 216 (Address) Mound City (City) KS 66056 (State)

DESCRIPTION OF WELL AND LEASE

Name of lease	Well number	Elevation (ground)
Jack Beary	56A	

WELL LOCATION (give footage from section lines)

165 ft. from (N) (S) sec. line 385 (1432.25) ft. from (E) (W) sec. line

WELL LOCATION Section 4 Township 46 Range 33 County CASS

Nearest distance from proposed location to property or lease line: 165 feet

Distance from proposed location to nearest drilling, completed or applied – for well on the same lease: 220 feet

Proposed depth:	Rotary or Cable tools	Approx. date work will start
670	Rotary	12- 80

Number of acres in lease: 24½

Number of wells on lease, including this well, completed in or drilling to this reservoir: 1

Number of abandoned wells on lease: _____

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

No. of Wells: producing _____ inactive _____ abandoned _____

Status of Bond

Single Well ☐ Amt. _____ Blanket Bond ☒ Amt. 20,000 ☒ ON FILE ☐ ATTACHED

Remarks: (If this is an application to deepen or plug back, briefly describe work to be done, giving present producing zone and expected new producing zone) use back of form if needed.

Proposed casing program:

amt.	size	wt./ft.	cem.
650'	4"	10.4	yes
22'	7¼	22	yes

Approved casing – To be filled in by State Geologist

amt.	size	wt./ft.	cem.

I, the undersigned, state that I am the VICE PRESIDENT of the GENERAL ENERGY, INC of LINN CO (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 Doug McDown

Permit Number: 20101

Approval Date: December 1, 1980

Approved By: Wallace B. Howe IRS

Note: This Permit not transferable to any other person or to any other location.

Remit two copies to: Missouri Oil and Gas Council P.O. Box 250 Rolla, Mo. 65401

One will be returned for driller's signature

☐ SAMPLES REQUIRED

☒ SAMPLES NOT REQUIRED

DEC 0 1 1980

MO. OIL & GAS COUNCIL

WATER SAMPLES REQUIRED @: _____

_____

_____

Approval of this permit by the Oil and Gas Council does not constitute endorsement of the geologic merits of the proposed well nor endorsement of the qualifications of the permittee.

MISSOURI OIL AND GAS COUNCIL

Form OGC-5

WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG

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

Owner	Address
Emery Energy, Inc.	Box 519, Osawatomie, Kansas 66064
Lease Name	**Well Number**
Jack Beary	A-56

Location: 165 ft. FNL --- 1432.25 Ft. FEL — Sec. — TWP-Range or Block & Survey: Sec. 4 Twp. 46N Range 33W

County	Permit number (OGC3 number)
Cass	20101

Date spudded	Date total depth reached	Date completed, ready to produce	Elevation (DF, RKB, RT or Gr.)	Elevation of casing hd. flange
12-8-80	12-12-80	1-21-80	1065.3 feet Gr.	Same as sur. ele. feet

Total depth	P. B. T. D
640 ft.	625.90

Producing interval (s) for this completion	Rotary tools used (interval)	Cable tools used (interval)
559-580	From 0 to T.D. Drilling Fluid used water, air	From ..... to None

Was this well directionally drilled?	Was directional survey made?	Was copy of directional survey filed?	Date filed
no	no	no	no

Type of electrical or other logs run (list logs filed with the State Geologist): Gamma Ray, Neutron, CCL — Date filed: 5/25/1981

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	9 in.	7 in.	35	21.5		
producing	6.25 in.	4 in.	10.6	625.90	70	

TUBING RECORD

Size	Depth set	Packer set at
2.375 in.	544 ft.	none ft.

LINER RECORD

Size	Top	Bottom	Sacks cement	Screen (ft.)
N/A in.	N/A ft.	N/A ft.	N/A	N/A

PERFORATION RECORD

Number per ft.	Size & type	Depth Interval
1	3½ glass	559-568
		571-573
		580

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

Am't. & kind of material used	Depth Interval
water gel 2	Clay Stabilizer 10
sand 20-40 20	
sand 10-30 10	

INITIAL PRODUCTION

Date of first production: 2-6-81 — Producing method (indicate if flowing, gas lift or pumping—if pumping, show size & type of pump:): No record-see later production report

Date of test	Hrs. tested	Choke size	Oil prod. during test	Gas prod. during test	Water prod. during test	Oil gravity
no			bbls.	MCF	bbls.	API (Corr.)

Tubing pressure	Casing pressure	Cal'ted 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):

Method of disposal of mud pit contents:

CERTIFICATE: I, the undersigned, state that I am the Vice-President of the Emery Energy, 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: Devon M. Hurst

Devon Hurst

Remit two copies: one will be returned

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JUN 04 1981
MO. OIL & GAS COUNCIL

W00011

DETAIL OF FORMATIONS PENETRATED

Formation	Top Ft.	Bottom Ft.	Description*
PENNSYLVANIAN SYSTEM			
KANSAS CITY			
Iola Ls.	0	20	White to light gray limestone
Chanute Sh.	20	107	Gray to green shales with gray limestone beds
Cement City Sh.	66	76	Blue, gray limestone
Belton Ss.	99	107	Sandstone
Cherryvale Sh.	107	157	Gray, blue shales
Dennis Ls.			
Winterset Sh.	157	187	Gray, blue coarse limestone
Stark Sh.	187	193	Black, fissile shale
Swope Ls.			
Bethany Falls Ls.	193	215	Gray, fine to coarse limestone
Hush puckney Sh.	215	220	Black, fissile shale
Hertha Ls.	220	230	Gray to blue limestone
PLEASANTON	230	410	Gray, green shales
Knobtown Ss.			sand
Dawson Coal Hor.	238	242	Black, fissile, slaty shale
HENRIETTA	410	---	
Alamont	410	432	Gray brown, fine grained limestone with gray shale
Pawnee	432	468	Fine grained, light gray limestone
Peru Ss.	447	452	Sand
Myrick Sta. Ls.	463	468	Gray to brown limestone
Anna Sh.	468	463	Coal to black fissile shale
Fort Scott	473	510	Gray to green shales and limestone
Englevale Ss.	473	496	Fine to medium grained channel sandstone
CHEROKEE	510	---	Gray to dark shales
Upper Cherokee			
Upper Squirrel	526	578	Fine to medium grained sandstones
Lower Squirrel	578	602	Fine to medium grained sandstones
Bevier Coal Hor.	---	---	Black coal
Lower Cherokee			
Burbank Ss.			Sandstone, irregular
Bartlesville Ss.	602	640 TD	Shale, sandy shale, thin sandstone
Core # 1	468	488	Englevale 473.0 - 480.2 Core # 4 563-600
Core # 2	533	544	Squirrel Ss. 552.4 - 590.0 Core # 5 581-600
Core # 3	544	563	

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

INSTRUCTIONS:

Attach drillers log or other acceptable log of well if available.

EMERY ENERGY, INC.

225 North State Street
Salt Lake City, Utah 84103
(801) 531-8770

June 14, 1984

Missouri Department of Natural Resources
P.O. Box 250
Rolla, MO. 65401
Attn: Mr. Bruce W, Netzler, Geologist

Dear Mr. Netzler,

I am in receipt of your letter requesting an interpretation of the log reports shbmitted to your office in 1981 by our company covering wells on the Beary Lease, Cass County, Missouri. In 1982-83 we basically shut down our operations in the Kansas/Missouri area and let the people go who were responsible for both the drilling of these wells and the Government reports. I have lookedover the logs and our in-house geologist here in Salt Lake has examined it also but we are unable to come up with the answers. The fact is that no one is around who was there to observe the way the formations lay, so I dont know how we can clear up the matter.

If 3½ years hadnt passed I'd have confidence that maybe we could tack something down, but now I believe it is too late.

I'm sorry I was'nt able to help you in getting this cleared up. Please feel free to call if you have any other questions.

Yours truly,

Ron J. Hollberg, III
Production Dept.

RJH/rh

OILFIELD RESEARCH LABORATORIES

536 NORTH HIGHLAND - CHANUTE, KANSAS 66720 - PHONE (316) 431-2650

February 16, 1981

Emery Energy, Inc.
P. O. Box 519
Osawatomie, Kansas 66064

Gentlemen:

Enclosed herewith is the report of the analysis of the rotary cores taken from the Beary Lease, Well No. 56-A, located in Cass County, Missouri and submitted to our laboratory on December 16, 1980.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Sanford A. Michel

SAM/kas

5 c to Osawatomie, Kansas

Oilfield Research Laboratories

GENERAL INFORMATION & SUMMARY

Company Emery Energy, Inc. Lease Beary Well No. 56-A

Location

Section 4 Twp. 46N Rge. 33W County Cass State Missouri

	Englevale	Squirrel
Elevation, Feet		
Name of Sand		
Top of Core	473.0	551.0
Bottom of Core	482.0	591.0
Top of Sand	473.0	552.4
Bottom of Sand (Tested)	480.2	590.0
Total Feet of Permeable Sand	4.8	19.9
Total Feet of Floodable Sand		

Distribution of Permeable Sand: Permeability Range Millidarcys	Feet	Cum. Ft.
ENGLEVALE SAND		
0 - 4	2.2	2.2
22 & Above	2.6	4.8
SQUIRREL SAND		
0 - 80	5.4	5.4
105 - 300	5.7	11.1
300 - 500	6.8	17.9
500 & Above	2.0	19.9

Average Permeability Millidarcys	17.0	276.5
Average Percent Porosity	15.5	24.1
Average Percent Oil Saturation	46.0	47.4
Average Percent Water Saturation	44.1	37.4
Average Oil Content, Bbls./A. Ft.	546.	906.
Total Oil Content, Bbls./Acre	2,620.	18,931.
Average Percent Oil Recovery by Laboratory Flooding Tests	0.	12.9
Average Oil Recovery by Laboratory Flooding Tests, Bbls./A. Ft.	0.	253.
Total Oil Recovery by Laboratory Flooding Tests, Bbls./Acre	0.	3,767.
Total Calculated Oil Recovery, Bbls./Acre	0.	See "Calculated Recovery" Section

The cores were sampled and the samples sealed in plastic bags by a representative of the client. Air and water mist was used as a drilling fluid.

Since only the Squirrel Sand portion of these cores responded to flooding susceptibility tests, a calculated recovery is given for the Squirrel Sand only.

FORMATION CORED

The detailed log of the formation cored is as follows:

Depth Interval, Feet	Description
	ENGLEVALE SAND
473.0 - 474.0	Brown and gray laminated slightly calcareous sandstone and shale.
474.0 - 475.1	Brown and gray laminated slightly calcareous sandstone and shale.
475.1 - 475.7	Light brown slightly calcareous sandstone.
475.7 - 476.0	Gray shale.
476.0 - 478.3	Light brown and gray laminated slightly calcareous sandstone and shale.
478.3 - 478.7	Grayish brown slightly calcareous shaly sandstone.
478.7 - 479.5	Gray sandy shale.
479.5 - 480.2	Light brown and gray laminated slightly calcareous sandstone and shale.
480.2 - 482.0	Gray shale.
	SQUIRREL SAND
551.0 - 552.4	Gray shale.
552.4 - 553.1	Grayish light brown slightly calcareous very shaly sandstone.
553.1 - 556.3	Gray shale.

556.3 - 559.7	Light brown and gray laminated slightly calcareous sandstone and shale.
559.7 - 561.2	Gray shale.
561.2 - 568.7	Brown slightly calcareous sandstone.
568.7 - 578.7	Brown and gray slightly calcareous conglomeratic shaly sandstone.
578.7 - 585.3	Dark brown slightly calcareous sandstone.
585.3 - 591.0	Gray slightly calcareous sandstone.

LABORATORY FLOODING TESTS

SQUIRREL SAND

The Squirrel sand in this core responded to laboratory flooding tests, as a total recovery of 3,767 barrels of oil per acre was obtained from 14.9 feet of sand. The weighted average percent oil saturation was reduced from 54.4 to 41.5, or represents an average recovery of 12.9 percent. The weighted average effective permeability of the samples is 17.42 millidarcys, while the average initial fluid production pressure is 19.2 pounds per square inch (See Table V).

By observing the data given in Table IV, you will note that of the 19 samples tested, 13 produced water and oil, and 4 samples produced water only. This indicates that approximately 68 percent of the sand represented by these samples is floodable pay sand.

CALCULATED RECOVERY

SQUIRREL SAND

It would appear from a study of the core data, that efficient primary and waterflood operations in the vicinity of this well should recover approximately 5,890 barrels of oil per acre. This is an average recovery of 395 barrels per acre foot from 14.9 feet of floodable sand analyzed in this core.

These recovery values were calculated using the following data and assumptions:

Original formation volume factor, estimated	1.04
Reservoir water saturation, percent, estimated	15.0
Average porosity, percent	25.3
Oil saturation after flooding, percent	41.5
Performance factor, percent, estimated	50.0
Net floodable sand, feet	14.9

Oilfield Research Laboratories

RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company Emery Energy, Inc. Lease Beary Well No. 56-A

Sample No.	Depth, Feet	Effective Porosity Percent	Percent Saturation			Oil Content Bbls. / A Ft.	Perm., Mill.	Feet of Sand		Total Oil Content	Perm. Capacity Ft. X md.
			Oil	Water	Total			Ft.	Cum. Ft.		
						ENGLEVALE SAND					
1	473.2	14.5	46	41	87	518	39.	1.0	1.0	518	39.00
2	474.7	15.6	39	59	98	472	3.9	1.1	2.1	519	4.29
3	475.5	23.2	50	37	87	900	22.	0.6	2.7	540	13.20
4	476.5	10.9	57	29	86	482	22.	1.0	3.7	482	22.00
5	478.5	16.7	49	37	86	635	2.6	0.4	4.1	254	1.04
6	479.7	15.7	36	57	93	439	2.7	0.7	4.8	307	1.89
						SQUIRREL SAND					
7	552.5	17.2	28	68	96	374	0.58	0.7	0.7	262	0.41
8	556.5	25.5	60	22	82	1187	11.	1.0	1.7	1187	11.00
9	557.4	22.3	55	30	85	952	288.	1.0	2.7	952	288.00
10	559.4	20.6	60	36	96	959	77.	1.4	4.1	1343	107.80
11	561.5	28.5	47	28	75	1039	259.	1.7	5.8	1766	440.30
12	563.7	26.6	53	27	80	1094	493.	1.6	7.4	1750	788.80
13	564.8	24.3	47	36	83	886	203.	1.0	8.4	886	203.00
14	565.8	25.0	54	28	82	1047	470.	1.0	9.4	1047	470.00
15	567.4	25.7	54	30	84	1077	387.	1.0	10.4	1077	387.00
16	569.7	17.9	21	70	91	292	4.2	1.3	11.7	380	5.46
17	570.8	28.2	59	18	77	1291	335.	1.0	12.7	1291	335.00
18	573.5	25.3	62	29	91	1217	637.	1.0	13.7	1217	637.00
19	574.3	27.4	60	20	80	1275	419.	1.0	14.7	1275	419.00
20	575.8	15.5	33	61	94	397	Imp.	1.0	15.7	397	0.00
21	578.5	21.8	42	39	81	710	105.	1.0	16.7	710	105.00
22	580.5	24.3	54	30	84	1018	384.	1.2	17.9	1222	460.80
23	582.5	27.8	59	23	82	1273	536.	1.0	18.9	1273	536.00
24	585.8	26.7	26	61	87	539	259.	1.0	19.9	539	259.00
25	589.5	24.2	19	68	87	357	49.	1.0	20.9	357	49.00

Oilfield Research Laboratories

SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company Emery Energy, Inc. Lease Beary Well No. 56-A

Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.
	ENGLEVALE SAND		
473.0 - 480.2	4.8	17.0	81.42
	SQUIRREL SAND		
552.4 - 590.0	19.9	276.5	5,502.57

Depth Interval, Feet	Feet of Core Analyzed	Average Percent Porosity	Average Percent Oil Saturation	Average Percent Water Saturation	Average Oil Content Bbl./A. Ft.	Total Oil Content Bbls./Acre
			ENGLEVALE SAND			
473.0 - 480.2	4.8	15.5	46.0	44.1	546	2,620
			SQUIRREL SAND			
552.4 - 590.0	20.9	24.1	47.4	37.4	906	18,931

Oilfield Research Laboratories

RESULTS OF LABORATORY FLOODING TESTS

TABLE IV

Company Emery Energy, Inc. Lease Beary Well No. 56-A

Sample No.	Depth, Feet	Effective Porosity Percent	Original Oil Saturation		Oil Recovery		Residual Saturation			Volume of Water Recovered cc*	Effective Permeability Millidarcys**	Initial Fluid Production Pressure Lbs./Sq./In.
			%	Bbls./A. Ft.	%	Bbls./A. Ft.	% Oil	% Water	Bbls./A. Ft.			
					ENGLEVALE SAND							
1	473.2	14.9	45	520	0	0	45	47	520	18	0.50	45
2	474.7	15.6	39	472	0	0	39	59	472	26	1.12	40
3	475.5	23.4	50	908	0	0	50	39	908	15	0.50	45
4	476.5	11.0	57	486	0	0	57	34	486	0	Imp.	-
5	478.5	16.8	49	639	0	0	49	40	639	11	0.60	50
6	479.7	16.2	35	440	0	0	35	60	440	0	Imp.	-
					SQUIRREL SAND							
7	552.5	17.3	28	376	0	0	28	68	376	58	2.25	20
8	556.5	25.6	60	1192	21	417	39	54	775	316	9.30	15
9	557.4	22.3	55	952	15	260	40	46	692	432	12.85	15
10	559.4	20.7	60	964	20	321	40	56	643	210	9.37	20
11	561.5	28.3	47	1032	10	220	37	50	812	260	26.39	15
12	563.7	26.4	53	1085	12	246	41	44	839	226	10.87	20
13	564.8	24.3	47	886	5	94	42	43	792	416	9.45	25
14	565.8	25.2	54	1056	10	196	44	46	860	280	7.20	30
15	567.4	25.8	54	1081	11	220	43	45	861	314	4.14	20
16	569.7	18.0	21	293	0	0	21	69	293	376	24.63	15
17	570.8	28.1	59	1286	12	262	47	36	1024	462	29.99	20
18	573.5	25.1	62	1207	0	0	62	30	1207	0	Imp.	-
19	574.3	27.4	60	1275	18	383	42	40	892	358	38.98	15
20	575.8	15.0	34	396	0	0	34	60	396	0	Imp.	-
21	578.5	21.7	42	707	2	34	40	46	673	514	7.05	20
22	580.5	24.5	54	1026	13	247	41	46	779	422	27.85	20
23	582.5	27.8	59	1272	18	388	41	70	884	260	31.79	15
24	585.8	26.7	26	539	0	0	26	70	539	210	22.12	15
25	589.5	24.1	19	355	0	0	19	79	355	374	8.40	25

Notes: cc—cubic centimeter.

*—Volume of water recovered at the time of maximum oil recovery.

**—Determined by passing water through sample which still contains residual oil.

Oilfield Research Laboratories

SUMMARY OF LABORATORY FLOODING TESTS

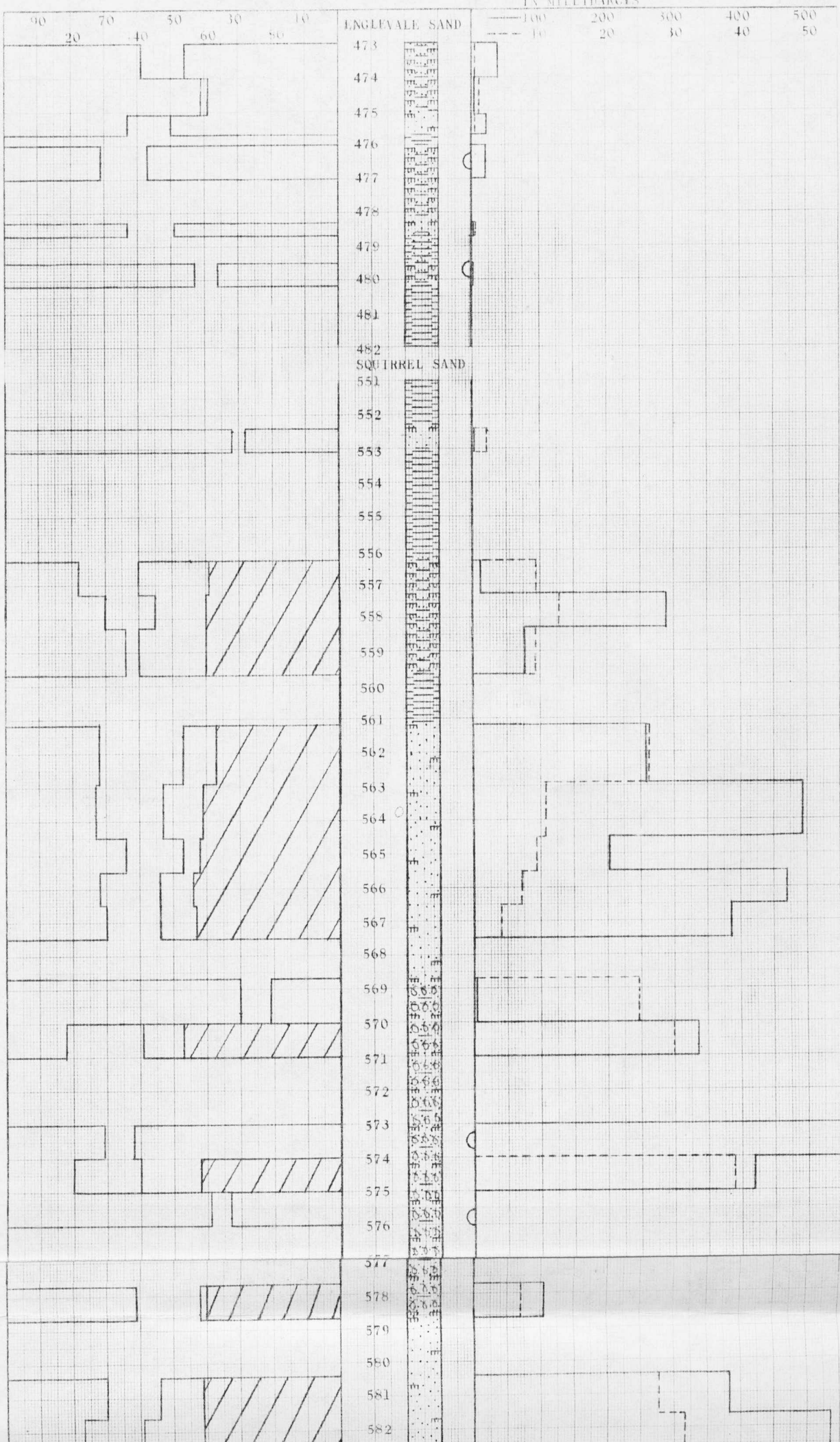
TABLE V

Company Emery Energy, Inc. Lease Beary Well No. 56-A

SQUIRREL SAND

Depth Interval, Feet	552.4 - 590.0
Feet of Core Analyzed	14.9
Average Percent Porosity	25.3
Average Percent Original Oil Saturation	54.4
Average Percent Oil Recovery	12.9
Average Percent Residual Oil Saturation	41.5
Average Percent Residual Water Saturation	48.0
Average Percent Total Residual Fluid Saturation	89.5
Average Original Oil Content, Bbls./A. Ft.	1,059.
Average Oil Recovery, Bbls./A. Ft.	253.
Average Residual Oil Content, Bbls./A. Ft.	806.
Total Original Oil Content, Bbls./Acre	15,777.
Total Oil Recovery, Bbls./Acre	3,767.
Total Residual Oil Content, Bbls./Acre	12,010.
Average Effective Permeability, Millidarcys	17.4
Average Initial Fluid Production Pressure, p.s.i.	19.2

NOTE: Only those samples which recovered oil were used in calculating the above averages.


WATER SAT., PERCENT
OIL SAT., PERCENT
PERMEABILITY, IN MILLIDARCYS
EFFECTIVE PERMEABILITY TO WATER IN MILLIDARCYS
90 70 50 30 10
20 40 60 80
100 200 300 400 500
10 20 30 40 50
ENGLEVALE SAND
473
474
475
476
477
478
479
480
481
482
SQUIRREL SAND
551
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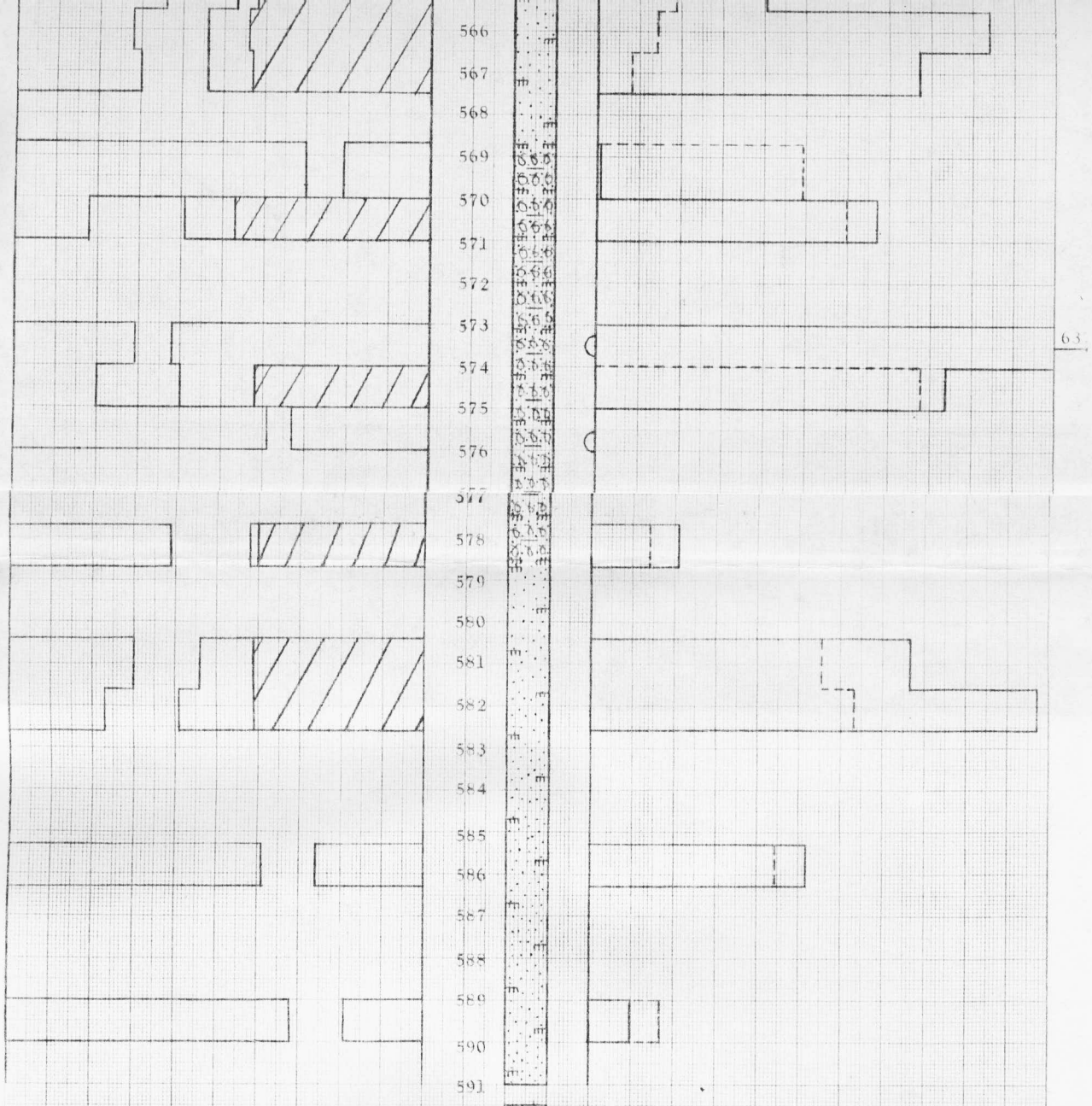

KEY:

- LAMINATED CALCAREOUS SANDSTONE & SHALE
- SHALE
- SANDY SHALE
- IMPERMEABLE TO WATER
- FLOODPOT RESIDUAL OIL SATURATION
- CALCAREOUS SANDSTONE
- SHALY CALCAREOUS SANDSTONE
- SHALY CALCAREOUS CONGLOMERATIC SANDSTONE

EMERY ENERGY, INC.

BEARY LEASE — WELL NO. 56-A

CASS COUNTY, MISSOURI

DEPTH INTERVAL, FEET	FEET OF CORE ANALYZED	AVERAGE POROSITY PERCENT	AVG. OIL SATURATION PERCENT	AVG. WATER SATURATION PERCENT	AVERAGE PERMEABILITY MILLIDARCYS	CALCULATED OIL RECOVERY BBLS./ACRE
		ENGLEVALE SAND				
473.0 - 480.2	4.8	15.5	46.0	44.1	17.0	- - -
		SQUIRREL SAND				
552.4 - 590.0	20.9	24.1	47.4	37.4	276.5	5,890 (PRIMARY & WATERFLOODING)

OILFIELD RESEARCH LABORATORIES
CHANUTE, KANSAS
FEBRUARY, 1951