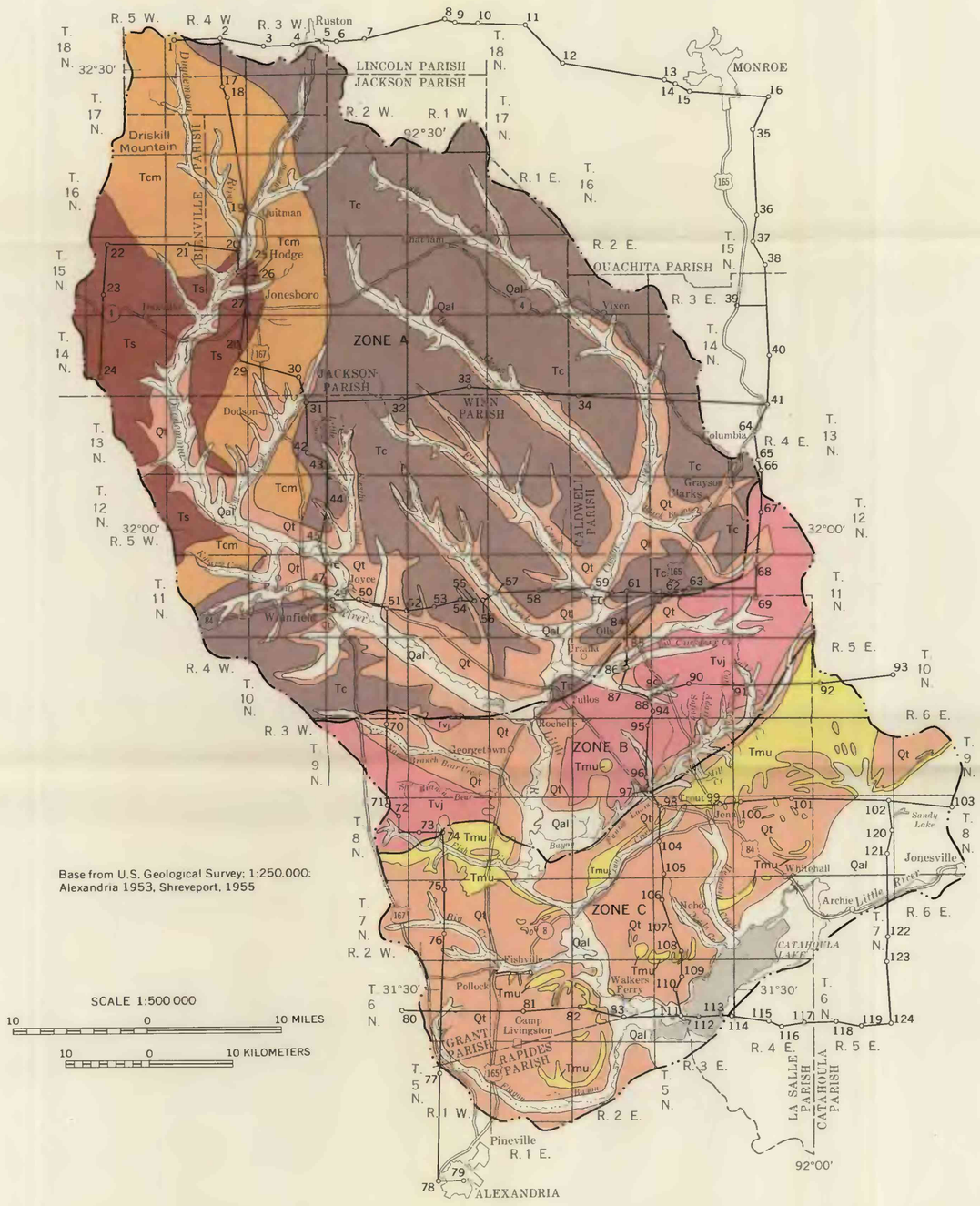
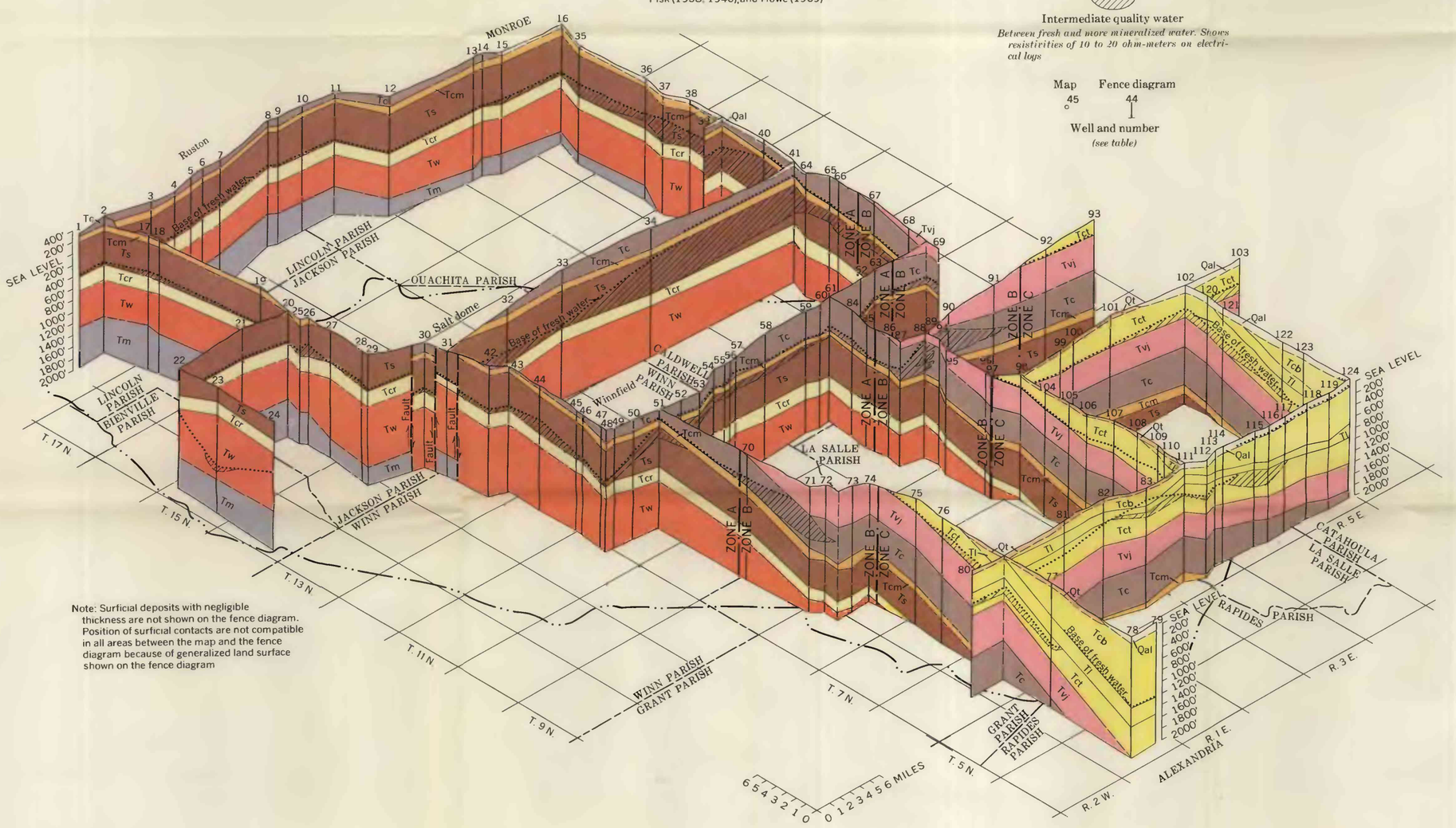
PREPARED IN COOPERATION WITH THE
LOUISIANA DEPARTMENT OF PUBLIC WORKS
AND THE
LOUISIANA GEOLOGICAL SURVEY
DEPARTMENT OF CONSERVATION



Geology in part generalized from Chawner (1936), Fisk (1938, 1940), and Howe (1939)



Note: Surficial deposits with negligible thickness are not shown on the fence diagram. Position of surficial contacts are not compatible in all areas between the map and the fence diagram because of generalized land surface shown on the fence diagram

EXPLANATION

MAP AND FENCE DIAGRAM

Holocene

Qal — Alluvium

Clay or silt at the surface grading downward to sand and gravel. Yields moderately hard to very hard iron-bearing water

Pleistocene

Qt — Terrace deposits

Similar to the alluvium. Yield soft to hard water; low to objectionably high iron concentrations locally

MAP ONLY

Miocene

Tmu — Miocene deposits undifferentiated

Includes Carnahan Bayou Member and Lena Member of Fisk (1940) of the Fleming Formation and the Catahoula Formation. The Lena is predominantly clay and not an aquifer in the basin. The Catahoula contains thick fresh-water-bearing sands in most of zone C, as does the Carnahan Bayou Member in the southern part of zone C in the area north of Alexandria

MAP AND FENCE DIAGRAM

Eocene and Oligocene

Tvj — Vicksburg and Jackson Groups

The Vicksburg (Oligocene) and Jackson (Eocene) are predominantly clay and not aquifers in Little River basin

Eocene — Claiborne Group

Tc — Cockfield Formation

Alternating sand and clay. An important source of fresh water in parts of zones A and B

Tcm — Cook Mountain Formation

Predominantly clay; contains some glauconitic sands. Not developed as a source of fresh water in the Little River basin, except perhaps in dug wells in the outcrop area

Ts — Sparta Sand

Sand and clay. The principal source of fresh water in part of zone A, in the northern part of the basin. Massive sands supply large yields to wells

FENCE DIAGRAM ONLY

Tcr — Cane River Formation

Predominantly clay. Not a source of fresh water in the Little River basin

Tw — Wilcox Group

Sand and clay. A limited source of fresh water in part of zone A in Bienville Parish

Paleocene

Tm — Midway Group

Principally clay. Not a source of fresh water in the Little River basin

Contact
Dashed where approximately located

Boundary of the hydrologic zones

Basin boundary

Intermediate quality water
Between fresh and more mineralized water. Shows resistivities of 10 to 20 ohm-meters on electrical logs

Map 45 — Fence diagram 44
Well and number
(see table)

FENCE DIAGRAM ONLY

Fleming Formation

Tcb — Carnahan Bayou Member

Tl — Lena Member

Tct — Catahoula Formation

Electrical logs used in constructing the fence diagram

No.	Location Sec.	T.	R.	Well identification
1	19	18 N.	4 W.	Carter Oil Co. W. E. Dowling 1.
2	22	18 N.	4 W.	Carter Oil Co. Marvin Matthews 1.
3	29	18 N.	3 W.	L–91.
4	27	18 N.	3 W.	L–48.
5	24	18 N.	3 W.	L–24.
6	19	18 N.	2 W.	L–32.
7	21	18 N.	2 W.	Southwest Gas Producing Co. Y. A. Harris 1.
8	16	18 N.	1 W.	E. C. Wentworth O'Neal 2.
9	15	18 N.	1 W.	California Co. J. M. Norris 2.
10	13	18 N.	1 W.	California Co. W. W. Norris 1.
11	16	18 N.	1 E.	Pan American Petroleum Corp. Coon Unit 1.
12	36	18 N.	1 E.	Humble Oil & Refining Co. N. B. Golson et al. 1.
13	6	17 N.	3 E.	Pan American Petroleum Corp. Stubbs Unit 1.
14	5	17 N.	3 E.	Stanolind Oil & Gas Co. Tina S. Parker 1.
15	9	17 N.	3 E.	Pan American Petroleum Corp. Cage & Watkins Unit 1.
16	9	17 N.	4 E.	Paul E. Parsons & J. C. Vaughn, Jr., Logan 1.
17	2	17 N.	4 W.	Murphy Corp. Frazier 1.
18	11	17 N.	4 W.	Arkansas-Louisiana Gas Co. Hays 1.
19	25	16 N.	4 W.	Ja–99.
20	12	15 N.	4 W.	Ja–105.
21	5	15 N.	4 W.	Bi–125.
22	5	15 N.	5 W.	Union Producing Co. Allison 1.
23	29	15 N.	5 W.	Hodge-Hunt Lumber Co. Continental Can 1.
24	30	14 N.	5 W.	Union Producing Co. Nebo Oil Co. 1.
25	13	15 N.	4 W.	Ja–83.
26	24	15 N.	4 W.	Ja–85.
27	36	15 N.	4 W.	T. L. James & Co. Machen 1.
28	13	14 N.	4 W.	Ja–127.
29	24	14 N.	4 W.	Ja–129.
30	27	14 N.	3 W.	James Marshall Jones W. J. Gordon 1.
31	2	13 N.	3 W.	James Marshall Jones Continental Can Co. 1.
32	1	13 N.	2 W.	S. H. Riggs M. E. Parker 1.
33	35	14 N.	1 W.	Brown Paper Mill Fee 3.
34	6	13 N.	2 E.	Atlantic Refining Co Louisiana Central Lumber Co. 1.
35	29	17 N.	4 E.	G. P. Brown & R. M. Bergstein Gratz 1.
36	29	16 N.	4 E.	Mobil Oil Co. Alma Stout 1.
37	5	15 N.	4 E.	McCalman Drilling Co. Filhiol A–1.
38	16	15 N.	4 E.	Ou–402.
39	31	15 N.	4 E.	John S. Neilson Simmons 1.
40	21	14 N.	4 E.	Mobley & Stephens Viergil H. Reitzell 1.
41	38	13 N.	4 E.	Caddo Oil Co., Inc., T. H. Martin 1.
42	26	13 N.	3 W.	Sells Petroleum Co. D. M. Feazell 1.
43	36	13 N.	3 W.	Delta Drilling Co. Southern Advance Paper Co. 1.
44	13	12 N.	3 W.	John H. Fetzer Tremont Lumber Co. 1.
45	36	12 N.	3 W.	E. L. Sauer Birl Shirley 1.
46	1	11 N.	3 W.	Bill Gary A. G. Crawford 1.
47	13	11 N.	3 W.	B. M. Crooks Clyde Smith 1.
48	24	11 N.	3 W.	W–4.
49	19	11 N.	2 W.	W–28.
50	21	11 N.	2 W.	G. E. Kadine & Sons et al. John S. Callon Agent 5–B13.
51	23	11 N.	2 W.	Simco Oil Co., Inc., James E. Wilson 1.
52	25	11 N.	2 W.	Bruce Oils & San Siegel Lofton Estate 3.
53	20	11 N.	1 W.	Weaver & Jacobs D. O. Pray 2.
54	22	11 N.	1 W.	Milton Galoob J. N. Long 2.
55	23	11 N.	1 W.	D. D. Jacobs Tremont E–1.
56	24	11 N.	1 W.	D. D. Jacobs Urania Lumber Co. K–1.
57	18	11 N.	1 E.	McGoldrick Oil Co. Urania Lumber Co. 1.
58	15	11 N.	1 E.	Natural Gas & Oil Corp. Urania Lumber Co. 1.
59	17	11 N.	2 E.	Harter Oil Co. Urania Lumber Co. 1.
60	16	11 N.	2 E.	Caddo Oil Co. Love 1.
61	15	11 N.	2 E.	F. R. Jackson International Paper Co. 1.
62	18	11 N.	3 E.	H. L. Hunt William Cross 1.
63	16	11 N.	3 E.	Placid Oil Co. Louisiana Central 122.
64	17	13 N.	4 E.	Ca–35.
65	29	13 N.	4 E.	J. W. Love Louisiana Central 1.
66	4	12 N.	4 E.	Marshall R. Young Drilling Co. Olin 33.
67	17	12 N.	4 E.	Atlantic Refining Co. Louisiana Central Lumber Co. F–1.
68	5	11 N.	4 E.	Mudge Oil Co. International Paper Co. 1.
69	20	11 N.	4 E.	Placid Oil Co. Louisiana Central Oil & Gas Co. 150.
70	2	9 N.	2 W.	J. T. Cupples Arch Riggs 1.
71	2	8 N.	2 W.	Placid Oil Co. Goodpine F–122.
72	12	8 N.	2 W.	H. L. Hunt Goodpine F–1.
73	18	8 N.	1 W.	Bering Oil Co. Goodpine 1.
74	16	8 N.	1 W.	H. L. Hunt Goodpine F–4.
75	4	7 N.	1 W.	G–119.
76	21	7 N.	1 W.	The Texas Co. Foster 1.
77	16	5 N.	1 W.	R–876.
78	84	4 N.	1 W.	R–811.
79	42	4 N.	1 W.	R–762.
80	24	6 N.	2 W.	Moses, New & Hughes U.S.A. B–2.
81	21	6 N.	1 E.	Sidney Hughes U.S.A. 1.
82	19	6 N.	2 E.	E. F. Neeley O. McAdams 1.
83	27	6 N.	2 E.	Justiss-Mears Oil Co. T. E. Nugent 1.
84	27	11 N.	2 E.	Goedecke & Johnson Mott 1.
85	3	10 N.	2 E.	Harter Oil Co. Urania B–1.
86	15	10 N.	2 E.	Placid Oil Co. Urania Lumber Co. E–6.
87	22	10 N.	2 E.	George Belchic, Jr., et al. Hartner & Edenbone 2.
88	25	10 N.	2 E.	Placid Oil Co. Louisiana Central 121.
89	30	10 N.	3 E.	Placid Oil Co. Louisiana Central 23.
90	21	10 N.	3 E.	B. N. Tidwell C. I. Humphries 1.
91	19	10 N.	4 E.	Placid Oil Co. Louisiana Central Oil & Gas Co. 137.
92	19	10 N.	5 E.	H. L. Hunt Nebo Oil Co. F–139.
93	13	10 N.	5 E.	Barnett Serio Louisiana Central 1.
94	36	10 N.	2 E.	Placid Oil Co. Louisiana Central 89.
95	1	9 N.	2 E.	Placid Oil Co. Louisiana Central 133.
96	25	9 N.	2 E.	Petersen Petroleum Corp. Tremont Lumber 1.
97	36	9 N.	2 E.	Petersen Petroleum Corp. J. E. Turnley 1.
98	6	8 N.	3 E.	H. L. Hunt Nebo Oil Co. F–148.
99	2	8 N.	3 E.	Placid Oil Co. Goodpine F–17.
100	6	8 N.	4 E.	Petersen Petroleum Co. Drewett Unit 1–A.
101	2	8 N.	4 E.	Don Montgomery Nebo Oil Co. 1.
102	1	8 N.	5 E.	Elisha Walker, Jr., Tensas Delta 3.
103	2	8 N.	6 E.	Marlin Exploration Co. Henry Talliaferro 1.
104	19	8 N.	3 E.	Clay Oil & Gas Co. Whatley 1.
105	31	8 N.	3 E.	H. L. Hunt Goodpine F–130.
106	7	7 N.	3 E.	H. L. Hunt Nebo Oil Co. F–131.
107	20	7 N.	3 E.	James S. Michael Agent Nebo Oil Co. B–1.
108	32	7 N.	3 E.	H. L. Hunt Nebo Oil Co. F–174.
109	8	6 N.	3 E.	Mobley & Stephens M. F. Flaherty 2.
110	17	6 N.	3 E.	Justiss-Mears Oil Co. S. R. Poland 1.
111	29	6 N.	3 E.	H. A. Hodges, Inc., State C–1.
112	27	6 N.	3 E.	Carter Oil Co. Catahoula Lake D–2.
113	26	6 N.	3 E.	A. J. Hodges Industries, Inc., et al. State A–2.
114	25	6 N.	3 E.	Smith Operating & Management Co., Inc., State Lease A–4.
115	28	6 N.	4 E.	Phillips Petroleum Co. Tensas Delta C–1.
116	27	6 N.	4 E.	Lonark-Phillips Tensas Delta 1.
117	25	6 N.	4 E.	Carter Oil Co. et al. Tensas Delta A–4.
118	29	6 N.	5 E.	Jett Drilling Co., Inc., Louisiana Delta A–1.
119	27	6 N.	5 E.	Hunt Oil Co. Louisiana Delta H–107.
120	13	8 N.	5 E.	John Franks, R. K. Stoker, et al. Tensas Delta 1.
121	25	8 N.	5 E.	Roy Davis Zenoria Lumber Co. 1.
122	25	7 N.	5 E.	Woolf & Magee Callicott-Barton 1.
123	1	6 N.	5 E.	N. H. Wheless Louisiana Delta C–1.
124	25	6 N.	5 E.	Hunt Oil Co. Louisiana Delta 80.

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GENERALIZED GEOLOGIC MAP AND FENCE DIAGRAM OF THE LITTLE RIVER BASIN, LOUISIANA