Preconceived Notions: Ignoring Hearsay and Discovering New Pay*

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Abstract

While conducting my Master's thesis research in south Texas, questions arose about a sand that sits above the main San Miguel pay zone. Operators in the area have reported that it is nonproductive. However, I could find no evidence that it has ever been tested. Upon examination, the resistivity invasion profile, with additional electric logs, core, mud logs, the position of this sand relative to the main pay zone, in relation to the overlying shales that cap it, suggested evidence to the contrary. After recompletions that targeted this sand zone in old wells proved to be productive, the notion that this overlooked sand zone was dry was proven false. It goes to show that you should never leave any stone unturned.

^{*}Adapted from oral presentation given at 2017 AAPG Southwest Section Annual Convention, Midland, Texas, April 29-May 2, 2017

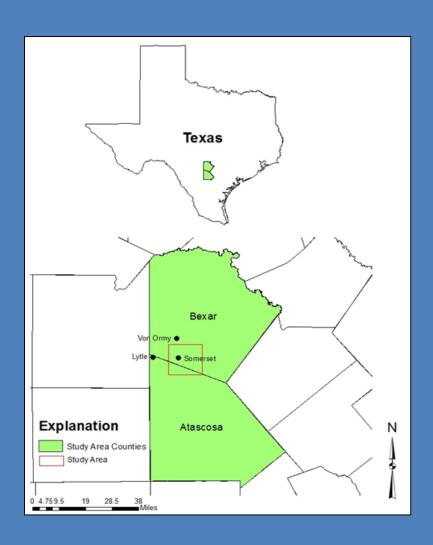
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PRECONCIVED NOTIONS: IGNORING HEARSAY AND DISCOVERING NEW PAY

By: Casey Mitchell



Location:

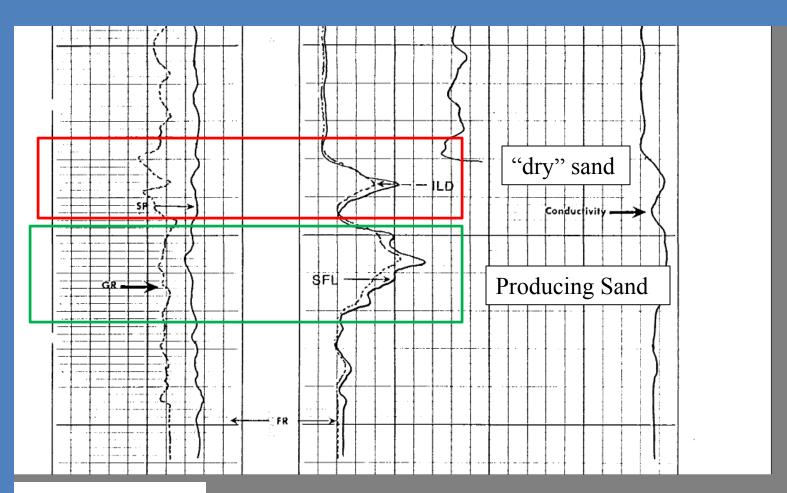


HISTORY

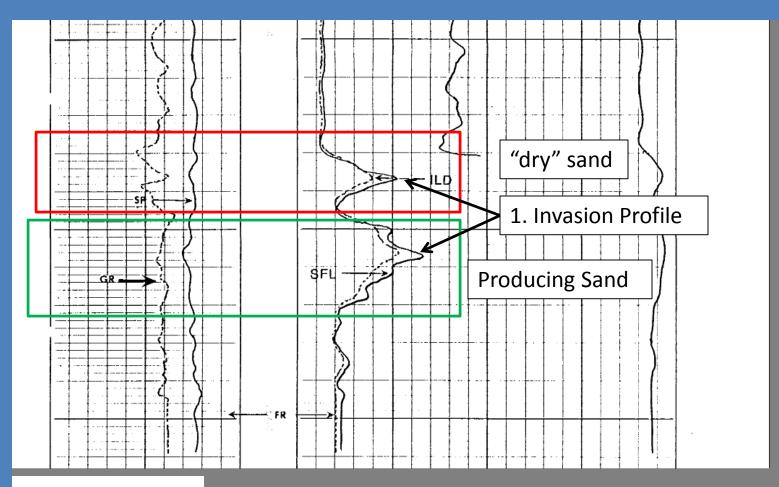
- •Discovered in early 1900s
- •Produces from: L. Escondido, San Miguel, Anacacho, Chalk
- •Waterflood San Miguel
- •Low per-well production

LOCAL STRATIGRAPHY: Depth, Feet Formation Top, Feet 100 Eocene 200 300 Wilcox 400 FILE 6 20-SEP-84 15:13 DATA ACQUIRED 00- -00 00:00 500 SFLA (OHMM) SFLA(0HMM) 4.0000 0.0 GR (GAPI) 600 700 Cretaceous 800 Escondido Lit 900 1000 1100 O-1 Sand Olmos 1200 1300 San Miguel 1400 Anacacho 1500 A. Hoffman #3

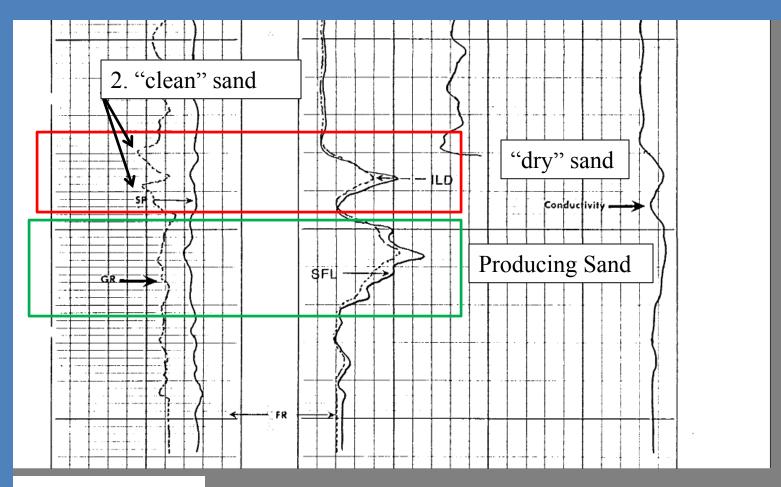
THE NOTION:



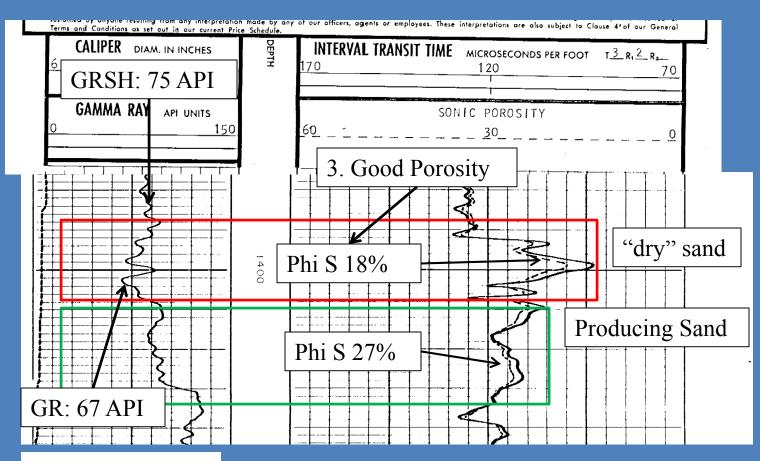
Clara Adams #3



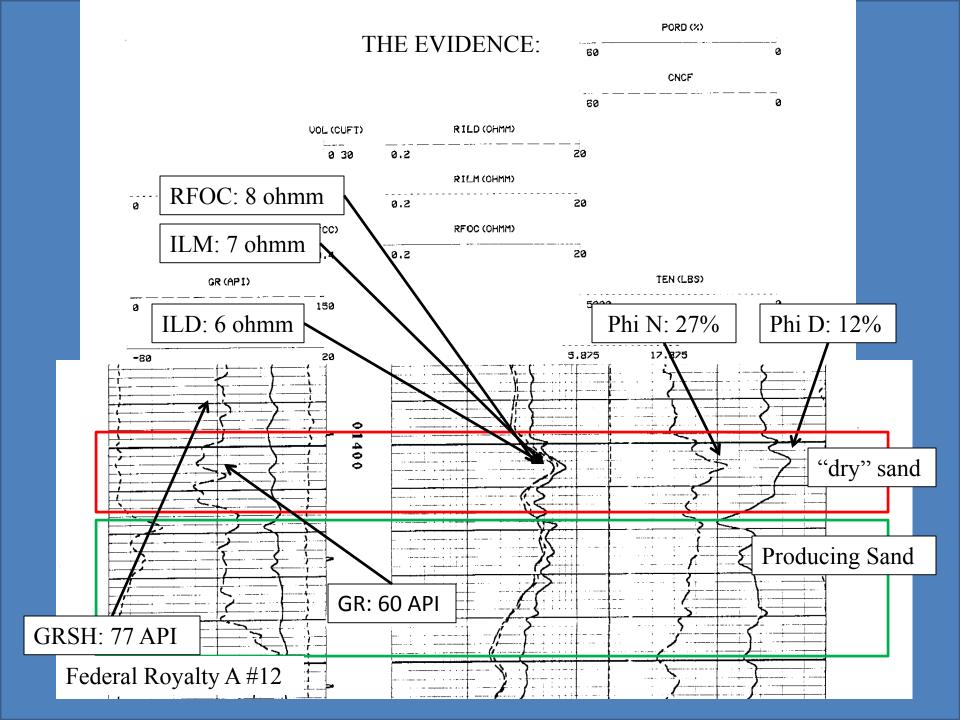
Clara Adams #3

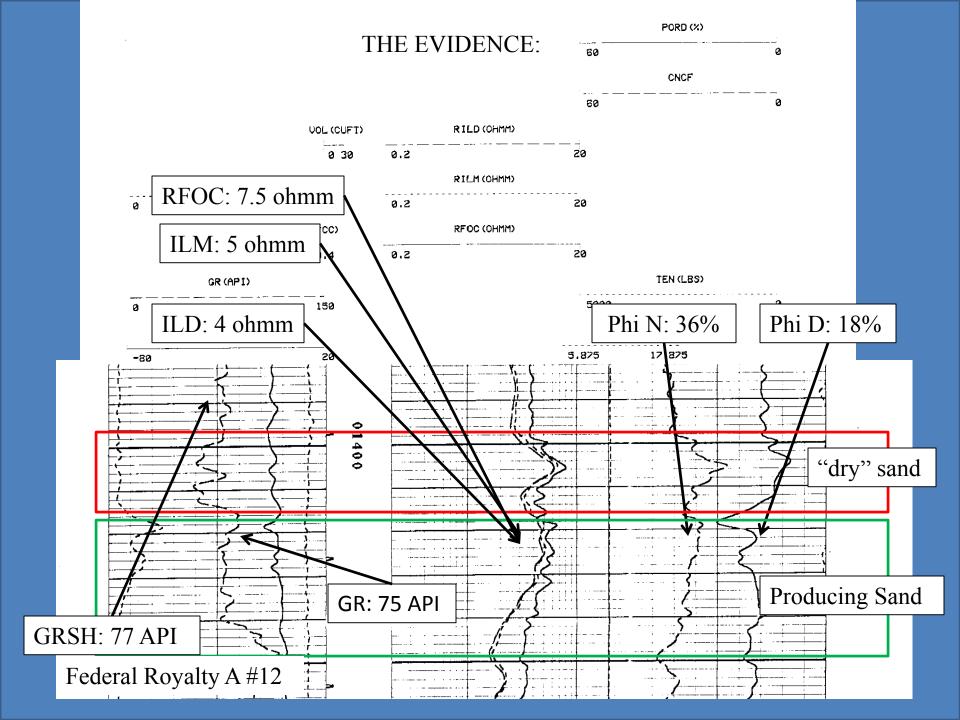


Clara Adams #3



Eastwood "A" #3





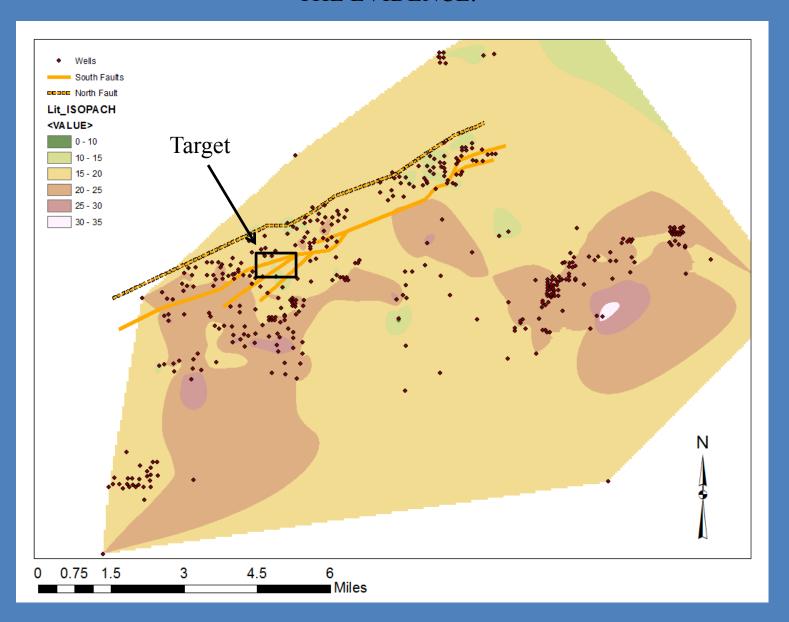
	o-1	Lit
GRss	75	60
GRsh	77	77
PhiN	36	27
PhiD	18	12
RFOC	7.5	8
ILM	5	7
ILD	4	6

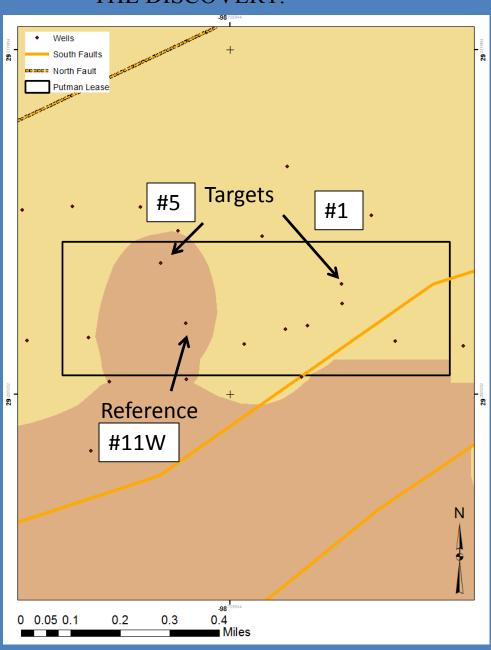
O-1

- 1. SWA=0.124
- 2. Ooip @ 5 acre 76,455

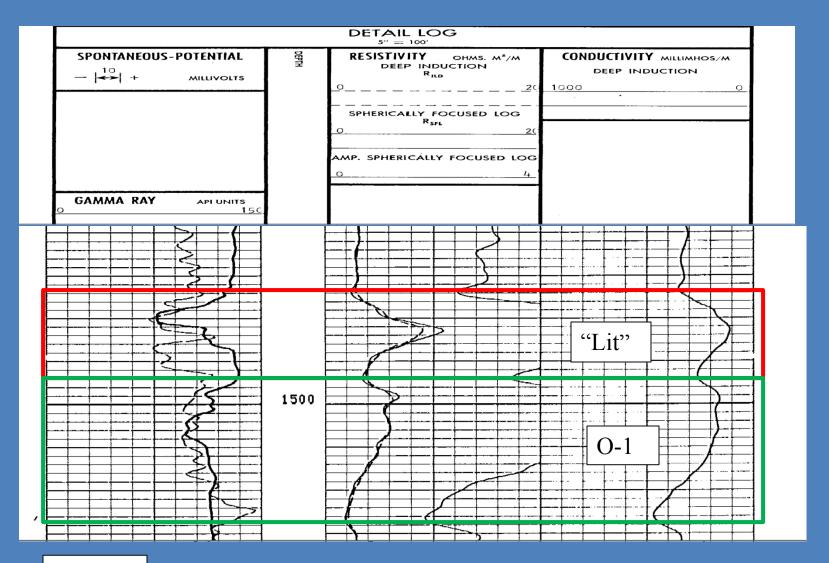
Lit

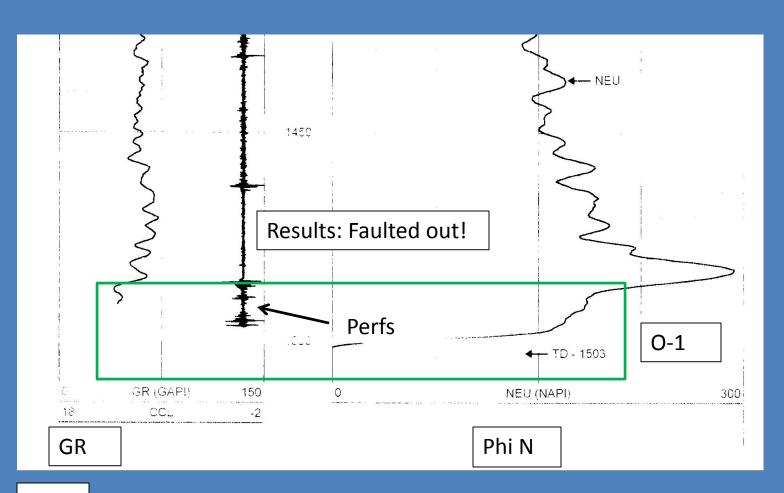
- 1. SWA=.0367
- 2. Ooip @ 5 acre 2,254
- 3. \$50/bbl @10% recovery = 12,700
- 4. Re-completion cost = 2,500

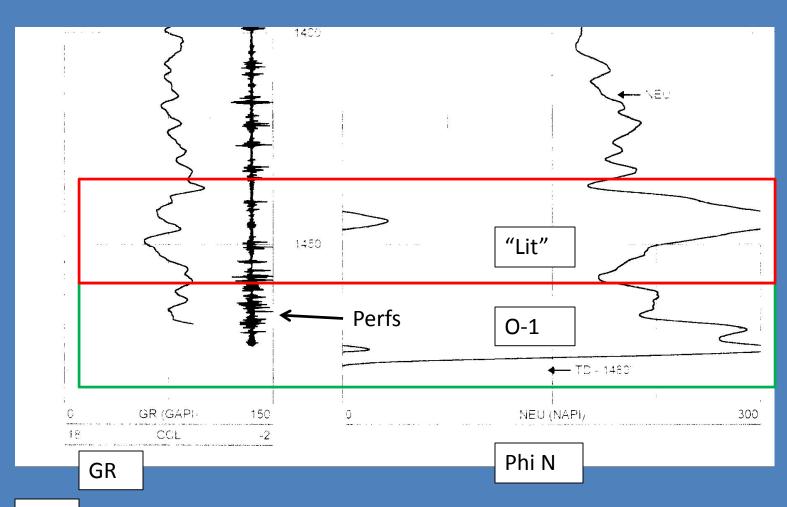


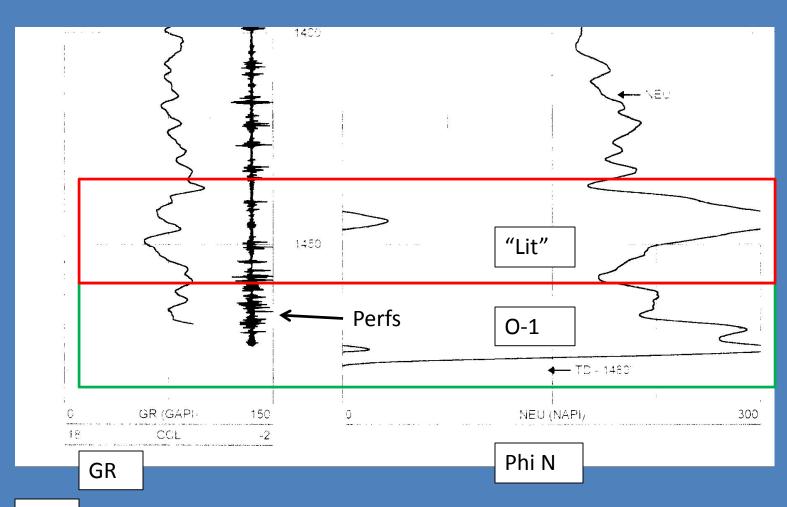


THE DISCOVERY: Reference Well











Conclusions

