

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE*

(See other in-
structions on
reverse side)Form approved.
Budget Bureau No. 42-R355.5.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG *

1a. TYPE OF WELL: OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> DRY <input type="checkbox"/> Other _____		5. LEASE DESIGNATION AND SERIAL NO. NM-14095	
b. TYPE OF COMPLETION: NEW WELL <input checked="" type="checkbox"/> WORK OVER <input type="checkbox"/> DEEP-EN <input type="checkbox"/> PLUG BACK <input type="checkbox"/> DIFF. RESVR. <input type="checkbox"/> Other _____		6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
2. NAME OF OPERATOR Kenai Oil & Gas Inc.		7. UNIT AGREEMENT NAME	
3. ADDRESS OF OPERATOR 1675 Larimer St. Suite 500 Denver, CO 80202		8. FARM OR LEASE NAME Federal	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)* At surface 460 FEL 2030 FSL Sec. 35, T24N, R8W At top prod. interval reported below At total depth Same		9. WELL NO. 35-43	
14. PERMIT NO.		10. FIELD AND POOL, OR WILDCAT Lybrook-Gallup	
DATE ISSUED		11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA Sec. 35, T24N, R8W	
15. DATE SPUDDED 7/23/81		12. COUNTY OR PARISH San Juan	
16. DATE T.D. REACHED 7/31/81		13. STATE NM	
17. DATE COMPL. (Ready to prod.) 2/27/82		18. ELEVATIONS (DF, RKB, RT, GR, ETC.)* 6891 KB	
19. ELEV. CASINGHEAD 6877'		20. TOTAL DEPTH, MD & TVD 5683' KB	
21. PLUG, BACK T.D., MD & TVD 5664'		22. IF MULTIPLE COMPL., HOW MANY* 23. INTERVALS DRILLED BY ROTARY TOOLS CABLE TOOLS 0-5682'	
24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)* 5239-5560' Gallup		25. WAS DIRECTIONAL SURVEY MADE Yes	
26. TYPE ELECTRIC AND OTHER LOGS RUN Induction Electric, FDC, CNL, Spectralog		27. WAS WELL CORED No	
28. CASING RECORD (Report all strings set in well)			
CASING SIZE		WEIGHT, LB./FT.	
8 5/8"		23#	
5 1/2"		14#	
DEPTH SET (MD)		HOLE SIZE	
356'		12 1/4"	
5682'		7 7/8"	
DV @ 2036'		475 sxs. 65-35 pozmix	
CEMENTING RECORD		AMOUNT PULLED	
220 sxs. Class "B"		None	
550 sxs. 50-50 pozmix		None	
29. LINER RECORD		30. TUBING RECORD	
SIZE		SIZE	
None		2 3/8"	
TOP (MD)		DEPTH SET (MD)	
		5558' KB	
BOTTOM (MD)		PACKER SET (MD)	
SACKS CEMENT*			
SCREEN (MD)			
31. PERFORATION RECORD (Interval, size and number) 5556-60, 5512-18, 5493-96', 5463-67, 5452-56, 5424-30, 5392-98, 5363-52, 5367, 5318-22, 5269, 5268, 5240, 5239, .38"-123 holes 5347'			
32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.			
DEPTH INTERVAL (MD)		AMOUNT AND KIND OF MATERIAL USED	
5559'-5425'		750 gal. 10% Acetic, 52,668 gal.	
5397-5239'		77,500# 20-40, 21,000# 10-20	
		750 gal 10% Acetic, 67,633 gal.	
		96,000# 20-40, 27,000# 10-20	
33.* PRODUCTION			
DATE FIRST PRODUCTION 1-10-82		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) Swabbing	
WELL STATUS (Producing or shut-in) SI			
DATE OF TEST 2-27-82		HOURS TESTED 12	
CHOKE SIZE		PROD'N. FOR TEST PERIOD	
OIL—BBL.		GAS—MCF.	
15		30	
WATER—BBL.		GAS-OIL RATIO	
62 BLW		2000	
FLOW. TUBING PRESS.		CASING PRESSURE	
CALCULATED 24-HOUR RATE		OIL GRAVITY-API (CORR.)	
30		40	
OIL—BBL.			
60			
34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) Vented during test, to be sold			
TEST WITNESSED BY Jeff Bollschweiler			
35. LIST OF ATTACHMENTS Geologic Report			
36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records			
SIGNED J.M. Bous		TITLE Manager of Production	
DATE 6/10/82			

*(See Instructions and Spaces for Additional Data on Reverse Side)

NMOCC

FARMING
BY E.B. Beck

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WELLSITE GEOLOGIC REPORT

KENAI OIL & GAS INC.
Federal 35-43
ne se 35-T24N-8W
San Juan County, New Mexico

Prepared by: Dick Harnly

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OPERATOR: Kenai Oil & Gas, Inc.

WELL: Federal 35-43

PROSPECT: Bisti East II/Nageezi
Gallup

LOCATION: ne se 35-T24N-R8W
2030 ft FSL, 460 ft FEL
San Juan County, New Mexico

DRILLING CONTRACTOR: Kenai Drilling Co., Rig 31
Pusher: C. McClain

MUD LOGGING: Durango Well Logging
Logger: Dick Harnly

WELLSITE GEOLOGY: Dick Harnly

MUD: Sunland Mud & Chemical Co.
Luke McCollum

LOGGING: Dresser Atlas
Engineer: Earl Vest

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SUMMARY OF MUD PROPERTIES (SUNLAND MUD & CHEM. CO)

<u>DEPTH</u>	<u>WEIGHT</u>	<u>VISCOSITY</u>	<u>WATER LOSS</u>	<u>CAKE</u>	<u>ph</u>	<u>CHLORIDES</u>	<u>% SOLIDS</u>
854	8.8	50	6.5	2	9.5	450	3.0
2368	9.3	36	6.2	2	9.5	450	3.0
3184	9.4	35	6.0	2	9.0	400	3.0
3915	9.5	34	6.2	2	8.5	450	4.0
4099	9.1	35	6.0	2	8.5	450	3.0
4940	9.2	34	7.1	2	8.0	450	3.5
5480	9.2	33	7.6	2	8.0	450	3.5
5662	9.3	68	5.5	2	8.0	450	3.0
5662	9.4	90	5.2	2	8.0	450	3.0
5662	9.4	119	4.8	2	8.0	450	3.0

<u>BIT NO.</u>	<u>SIZE</u>	<u>MANUFACTURER</u>	<u>BIT RECORD</u>			<u>FOOTAGE</u>	<u>ROTATING HOURS</u>
			<u>TYPE</u>	<u>IN</u>	<u>OUT</u>		
2	7 7/8"	Reed	S-12	355-1793		1338	10 3/4
3	7 7/8"	Reed	S-12	1793-2340		547	10
4	7 7/8"	Hughes	J-22 RR	2340-4099		1759	53 1/2
5	7 7/8"	Security	S-84	4099-5663		1564	61

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MUD LOGGING & WELLSITE GEOLOGY

Mud logging services were performed by Dick Harnly, owner operator of Durango Well Logging and Mark Harnly, mud logging operator from a depth of 3300 feet to total depth. Geologic services were performed at wellsite from the starting logging depth through the logging of the well by Dresser Atlas.

ELECTRIC LOGGING

These services were performed by Earl Vest of Dresser Atlas; Caliper, Gamma Ray, Spontaneous Potential, Dual Induction, Neutron Density and Spectalog logs. Difficulties were experienced with the operation of the caliper and the neutron tools and/or the instrument panel. These malfunctions may well have been caused by the wear and tear on the tools while trying to "spud through" bridges encountered in the upper portion of the hole. Dresser attempted to log and was prevented to do same five times by bridges in the hole at 480', 479', 474', 726', 1069', 1667', 718', and on the final attempt to log encountered a bridge at 1710'. This deepest bridge was finally penetrated after numerous runs to "spud through" and the induction logging was completed. During the operation of the density logging problems were encountered with the caliper and only only 1000 feet of the neutron log was completed. The spectralog was then successfully run. When attempting to re-run the density and caliper logs bridging was encountered at 800' and the hole was reentered with a bit and cleaned out to total depth. The logging operation was completed at 700 hours on 8-3-81. Several extra hours of circulating was necessary due to mechanical problems, replacement of the drive chain to the draw-works.

OIL & GAS SHOWS

Mud logging and geologic services were not started until 3300 feet. No shows of oil or gas were encountered between that depth and the top of the Point Lookout formation. In the upper portion of this formation a medium grained sandstone exhibiting a good yellow fluorescence with a fair to good blue white cut fluorescence was encountered. A show of gas in this zone, 4108-15 feet, was recorded at 21 units of total gas; 10 units of methane, 6 of ethane and 3 units of propane. While this zone is of interest it must be considered as a minor show of hydrocarbons.

Another minor show was encountered deeper in the Point Lookout formation, between 4365 and 4405 feet, contained in a very fine grained sandstone exhibiting only fair blue white fluorescence and cut. Gas recorded from this zone was of a very low magnitude, 5 and 7 units respectively.

The Gallup sands provided the remaining hydrocarbon shows in this hole. The first was encountered at 5210 feet, where, though very poorly represented in the samples (approx. 5% of the sample), was found in a very fine grained silty sandstone exhibiting a poor yellow fluorescence and a very poor slow milky cut. This zone and subsequent samples were a very poor representation of the Gallup formation due to the abnormally large percentage of rounded "cavings" and a very small amount of "Gallup sands". This condition was caused at least in part by the rapid rate of drilling; an average of two minutes per foot, considerably faster than in adjacent holes where the Gallup was drilled at an average of about four minutes per foot. Fracturing of the Gallup zones may also have contributed to the decreased quality of these samples. The mud system during the drilling appears to have been adequate. (see "Summary of Mud Properties").

The final shows in the Gallup were evidenced by only traces of

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shows in the samples and very minor gas shows at 5300 and between 5340 and 5355 feet. Gas and sample shows throughout the entire Gallup zones penetrated were considerably less than expected. This condition may be due in part to the cavitation evidenced in the upper portion of the hole, as recorded by the caliper. This ragged hole and cavitation can and does set up an extreme amount of turbulence in the returning mud in the well bore causing mixing of the cutting and adulteration of any gas in the mud.

SUMMATION

Experienced in this hole were many instances of bridging due to the very poor condition of the upper 2200 feet of hole resulting in a considerable rig time being lost during the logging operation along with resulting poor sample quality. Poor uphole conditions have been experienced in a number of holes in this and nearby areas... the problem has been improved by the water loss control in recent mud programs but the problem of poor hole conditions in the upper portion of the hole still occurs in this area. A possible final suggestion that would, no doubt, cure this situation would be to either set 2000 feet or so of surface pipe or incorporate a string of intermediate casing through this trouble zone.

Geologic Tops for Federal 35 #43

Pictured Cliffs	:	1820'
Cliff House	:	3321'
Point Lookout	:	4071'
Mancos	:	4400'
Gallup	:	5223'