

All distances must be from the outer boundaries of the Section.

Operator KENAI OIL & GAS INCORPORATED			Lease FEDERAL 34		Well No. 13
Unit Letter I	Section 34	Township 24N	Range 8W	County San Juan	
Actual Footage Location of Well: 1760 feet from the South line and 940 feet from the East line					
Ground Level Elev. 6850	Producing Formation Dakota		Pool Wildcat	Dedicated Acreage: 320 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.

ACCEPTED FOR RECORD

APR 21 1981

BY FARMINGTON DISTRICT

Sec. **34**

Scale: 1"=1000'

NMOCC

CERTIFICATION	
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.	
Name	<u> </u>
Position	<u>Agent</u>
Company	<u>Kenai Oil & Gas Inc.</u>
Date	<u>7-25-80</u>
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.	
Date Surveyed	<u>July 24 1980</u>
Registered Professional Engineer and Land Surveyor	<u>Fred B. Kerr Jr.</u>
Certificate No.	<u>3950</u>

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE*

(See instructions 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 <input type="checkbox"/>		
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 <input type="checkbox"/>
2. NAME OF OPERATOR Kenai Oil and Gas Inc.						5. LEASE DESIGNATION AND SERIAL NO. NM-20305	
3. ADDRESS OF OPERATOR 717 17th St., Suite 2000, Denver, Colorado 80202						6. IF INDIAN, ALLOTTEE OR TRIBE NAME NONE	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements) At surface 1760' FSL - 940' FEL (NESE) At top prod. interval reported below At total depth						7. UNIT AGREEMENT NAME NONE	
14. PERMIT NO. N/A						8. FARM OR LEASE NAME FEDERAL - 34	
15. DATE SPUDDED 8/26/81						9. WELL NO. #43	
16. DATE T.D. REACHED 9/9/81						10. FIELD AND POOL, OR WILDCAT Wildcat-Gallup	
17. DATE COMPL. (Ready to prod.) 3/24/81						11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA Sec. 34, T24N-R8W	
18. ELEVATIONS (DE, RES., ET, GE, ETC.)* 6850' GL; 6863' KE						12. COUNTY OR PARISH San Juan	
19. ELEV. CASINGHEAD ---						13. STATE New Mexico	
20. TOTAL DEPTH, MD & TVD 6403'		21. PLUG, BACK T.D., MD & TVD 6000'		22. IF MULTIPLE COMPL., HOW MANY* None		23. INTERVALS DRILLED BY Rotary Tools Yes, Cable Tools No	
24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)* 5463-5043' Gallup						25. WAS DIRECTIONAL SURVEY MADE No	
26. TYPE ELECTRIC AND OTHER LOGS RUN DIFL; CDL/CN/GR; CBL/GR; Spectralog						27. WAS WELL CORED No	
28. CASING RECORD (Report all strings set in well)							
CASING SIZE		WEIGHT, LB./FT.		DEPTH SET (MD)		HOLE SIZE	
8-5/8"		23#		520' KB		12 1/4"	
4-1/2"		10.5#		5540' KB		7-7/8"	
						CEMENTING RECORD	
						450 sxs	
						1st stage: 222 sxs	
						2nd stage: 910 sxs	
						AMOUNT PULLED	
						None	
						None	
						None	
29. LINER RECORD							
SIZE		TOP (MD)		BOTTOM (MD)		SACKS CEMENT*	
NONE						SCREEN (MD)	
30. TUBING RECORD							
SIZE		DEPTH SET (MD)		PACKER SET (MD)			
2-3/8"		5460' KB					
31. PERFORATION RECORD (Interval, size and number) All 1 jsprf, .39" holes: 5460-63'; 5441-46'; 5429-31'; 5412-15'; 5369-71'; 5333-36'; 5308-12'; 5290-92'; 5282-85'; 5260-63'; 5250-55'; 5226-30'; 5210-13'; 5194-97'; 5170-80'; 5156-66'; 5125-27'; 5113-17'; 5104-06'; 5086-91'; 5078-82'; 5060-66'; 5043-48'. For a total of 117 holes.							
32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.							
DEPTH INTERVAL (MD)				AMOUNT AND KIND OF MATERIAL USED			
5043-5463				3000 gals., 15% HCl w/NE agent			
5043-5463				156,428 gals, 30# cross-linked KCL wtr. 195,000# 20/40 sand.			
33. PRODUCTION							
DATE FIRST PRODUCTION 3/24/81		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) Flowing				WELL STATUS (Producing or shut-in) SI	
DATE OF TEST 3/23/81		HOURS TESTED 7 1/2		CHOKE SIZE 3/4"		PROD'N. FOR TEST PERIOD OIL—BBL. 23, GAS—MCF. 1.4 mmcf, WATER—BBL. 38, GAS-OIL RATIO	
FLOW. TUBING PRESS. 375		CASING PRESSURE 450		CALCULATED 24-HOUR RATE OIL—BBL. 50, GAS—MCF. 700, WATER—BBL. 75, OIL GRAVITY-API (CORR.) 39.8			
34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) Vented waiting on pipeline installation						TEST WITNESSED BY Robert Byers	
35. LIST OF ATTACHMENTS Wellsite Geologic Report						ACCEPTED FOR RECORD	
36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records							
SIGNED <u>George B. Judd</u>				TITLE <u>Manager-Drilling & Production</u>			
				DATE <u>APR 13 1981</u>			

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

BY KLB

OPERATOR

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.

Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

Item 29: "Sacks Cement". Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

37. SUMMARY OF POROUS ZONES:

SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES

FORMATION	TOP Depth	BOTTOM Elevation	DESCRIPTION, CONTENTS, ETC.	NAME	TOP	
					MEAS. DEPTH	TRUE VERT. DEPTH
Ojo Alamo	1046'	+5817				
Pictured Cliffs	1797'	+5066				
Cliffhouse	3236'	+3627				
Point Lookout	4026'	+2837				
Mancos	4335'	+2528				
Ilup	5162'	+1701				
Greenhorn	6098'	+765				
Graneros	6166'	+697				
Dakota	6246'	+617				
Total Depth	6403'	+460				

dick harnly
consulting petroleum geologist
1932 eastlawn ave, durango colorado, 81301, 303-247-1518

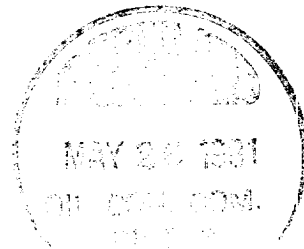
KENAI OIL AND GAS INC.
RECEIVED

SEP 19 '80

WELLSITE GEOLOGIC REPORT

KENAI OIL & GAS INC.
FEDERAL 34-43
ne se 34-T24n-R8W
SAN JUAN COUNTY, NEW MEXICO

Prepared by Dick Harnly



(**dick harnly**
consulting petroleum geologist
1932 eastlawn ave, durango colorado, 81301, 303-247-1518

OPERATOR: Kenai Oil & Gas Inc

WELL: Federal 34-43

PROSPECT: Bisti East II/Wildcat Dakota

LOCATION: ne se 34-T24N-R8W, Fed No. NM 20305

DRILLING CONTRACTOR: Westwind Drilling Co.
Rig 51
Pusher: Porter

WELLSITE ENGINEERING: Elledge Consulting & Production Co.
J.Presley

MUD LOGGING: Durango Well Logging
Mark Harnly, Dick Harnly

WELLSITE GEOLOGY: Dick Harnly

MUD: Baroid
Brown, Kennedy, Donald

LOGGING: Dresser Atlas
Engineer: McKelvie

TESTING: No Tests

SUMMARY OF MUD PROPERTIES (BAROID)

<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>
758	8.8	29	11.6	1	11.5	100	3.5
2215	8.9	32	7.2	2	9.5	100	4.25
2974	9.0+	32	8.4	1	9.0+	100	5.0
3309	9.0+	33	7.0	1	9.5	150	5.0
3309	9.0+	37	8.0	1+	11.5	150	5.0
4040	9.1	37+	5.6	1+	9.0	100	5.5
4907	9.1	35	6.4	2	9.5	100	5.7
5093	8.9	38	8.0	2	9.0	100	4.25
5120	8.9	34	6.0	2	9.5	100	4.25
5310	8.8	34	7.2	2	10.0	100	3.5
5695	8.9	35	8.0	1+	10.0	100	4.0
6051	8.9+	40	6.4	1+	9.5	100	4.0
6320	9.1	41	6.2	?	10.0	500	5.5
6365	9.0+	60	6.4	1+	9.5	350	5.0

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BIT RECORD

<u>BIT NO.</u>	<u>SIZE</u>	<u>MANUFACTURER</u>	<u>TYPE</u>	<u>IN</u>	<u>OUT</u>	<u>FOOTAGE</u>	<u>ROTATING HOURS</u>
B-2	7 7/8"	Hughes	J-2	525-	2127	1602	16½
B-3	7 7/8"	Hughes	J-2	2127-	2925	798	17
B-4	7 7/8"	Hughes	J-22	2925-	5248	2323	94
B-5	7 7/8"	Hughes	J-33	5248-	6375	1127	81

DEVIATION

525	3/4	2624	½	4108	½
1100	1½	2839	1	4712	3/4
1634	1	2925	3/4	5248	1
2127	½	3496	¼	5743	3/4

FORMATION TOPS (From "E" Logs)

Elevations: 6850GL, 6863KB

<u>FORMATION</u>	<u>DEPTH</u>	<u>ELEVATION</u>
Ojo Alamo	1046	+5817
Pictured Cliffs	1797	+5066
Cliffhouse	3236	+3627 ¹⁴³⁹
Point Lookout	4026	+2837 ⁷⁹⁰
Mancos	4335	+2528 ³⁰⁹
Gallup	5162	+1701 ⁵²⁷
Greenhorn	6098	+ 765
Graneros	6166	+ 697
Dakota	6246	+ 617
Total Depth (Drilled & Logged)	6403	+ 460

MUD LOGGING

Mud logging services were provided by Durango Well Logging of Durango, Colorado. A two man logging unit, operated by Mark and Dick Harnly, was in operation from the base of the surface casing at 520 feet to the drilled total depth of 6375 feet (S.L.M. 6403). The two man unit functions included: catching of samples by logging unit personnel, examination and preservation of the samples, 24 hour gas monitoring and analysis, and the preparation of the mud log record.

MUD ENGINEERING

Mud engineering services were conducted by R. Brown, M. Kennedy and D. Donald, representatives of Baroid. While a good rate of penetration was achieved with the mud program used two instances of trouble were encountered; the first occurred at 3309 feet when swelling of the formation caused the condition of "stuck pipe".; the addition of 25 bbls of #2 diesel oil had no beneficial effect, the drillpipe was "backed off" at about 2800 feet and the drilling operation resumed. The second and most serious problem was encountered at total depth while attempting to log the hole. Bridging of the hole at 760 feet prevented the penetration by the logging tools. Four attempts to log failed and bridge at 760 feet was drilled and circulated out, consuming a day or so of rig time. The fifth attempt was successful and Dresser Atlas reached the drilled total depth of 6403 feet. with both the Dual Induction and Densilog Neutron tools. The fracture finder tool failed at total depth and a second attempt was aborted when bridging was encountered.

HYDROCARBON SHOWS

No shows of oil and/or gas were encountered above the Point Look-out formation.

The first indication of the presence of oil or gas was found in the samples 4090-4150. The upper portion of this interval was represented by a white, slightly cream colored, very calcareous, fine grained sandstone. This sandstone, while evidencing no visible porosity or permeability, exhibited yellow-white fluorescence with a fair blue-white cut fluorescence in approximately 10-20% of the sample. Gas readings of a maximum of 25 units of total gas were recorded through this interval. Chromatographic analysis of this revealed a high percentage of methane...19 units, 4 units of ethane and a trace of propanes. With a slight increase in depth the nature of the sandstone changed to a very fine grained light gray, non-calcareous tightly infilled sandstone with a decreased amount of fluorescence and cut fluorescence. This lower portion of the interval contained the same fine grained sandstone as described in the upper portion of the interval. An abundant amount of loose fine grains were noted in this lower interval indicating the possibility of a friable nature of the sandstone.

The second formation exhibiting shows of oil or gas was noted in the Gallup sandstones beginning at 5175 feet. At this depth total gas readings of 35 units (maximum) was recorded ...containing 27 units of methane, 6 units of ethane and a trace of propanes. The reservoir rock in this instance is a slightly calcareous, light gray argillaceous siltstone without apparent porosity or permeability. A poor dull yellow fluorescence with a slow milky cut fluorescence...increasing to a fair fluorescence as the siltstone

graded into a very fine grained sandstone. This sandstone, tightly infilled with a white clay material is slightly calcareous and is without visible porosity or permeability. While the overall appearance of this zone is that of a very tight formation (as is generally the case in the Gallup) it is felt that this zone should respond to an acid treatment at completion time. The second and third zones in the Gallup are poorly represented by a very fine grained sandstone between 5320 and 5335 feet and a tight slightly calcareous siltstone 5380-5400. Both of these zones exhibited a trace of dull yellow fluorescence with a poor slow milky cut fluorescence...no gas was recorded from this zone.

The Dakota formation in this test was drilled without presenting evidence of oil and/or gas shows. Several samples between 6210 and 6250 feet exhibited a trace of intergranular porosity but contained no staining, fluorescence and or cut fluorescence. Three zones of the Dakota were penetrated (see mud log) but all zones were without shows in the samples.

SUMMATION

As previously noted the major problem concerning the condition of the bore hole was the extreme difficulty in attempting to log the hole. While the author is not a mud engineer an observation must be noted in that fact that severe bridging of the hole occurred at 760 feet. If reference is made to the summary of mud properties (this report) it will be found that the water loss at this depth was 11.6. The nearby Kenai well, Jeffers Fed 2-23 in section 2 of the same township and range was logged without these bridging difficulties. At the depth of 780 feet the water loss in the Jeffers was recorded as 4.0. There may not be a correlation between the variation