

Kansas Corporation Commission Oil & Gas Conservation Division

Form ACO-1 October 2008 Form Must Be Typed

WELL COMPLETION FORM WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 34024	API No. 15 - 15-205 - 27596 - 0060
Name: KAMC Oil & Gas LLC	Spot Description: Loether # 1Z
Address 1: 800 Henry Circle	SE SW SE SE Sec. 2 Twp. T29 S. R. 14 Feast West
Address 2:	295' Feet from North / South Line of Section
City: Fruita State: CO Zip: 81521 + 2289	
Contact Person: Charles Bisbee	tuned .
Phone: ()	□ NE □NW □SE □SW
CONTRACTOR: License # L & S Well Service 33374	
Name: Jim Lorenz	
Wellsite Geologist: Mark Brcheisen	i i
Purchaser:	
Designate Type of Completion:	Elevation: Ground: 889' Kelly Bushing:
New Well Re-Entry Workover	Total Depth: 1217 Plug Back Total Depth:
SWDSIOW \	Amount of Surface Pipe Set and Cemented at: 42' Feet
Gas ENHR SIGW	Multiple Stage Cementing Collar Used? Ves No
CM (Coal Bed Methane) Temp. Abd.	
Dry Other	41
(Core, WSW. Expl., Calhodic, etc.)	(if Attentiate if completion, cement circulated from)
If Workover/Re-entry: Old Well Info as follows:	feet depth to: W 12 A + 2 · 0 (\$\frac{\sqrt{g}}{2} \tag{\text{down}})
Operator: N/A	- Drilling Fluid Management Plan
Well Name: Loother 1Z	(Data must be collected from the Reserve Pit)
Original Comp. Date: 8 -08-08 Original Total Depth: 4217-	Chloride content: ppm Fluid volume: bbls
Deepening Re-perf. Conv. to Enhr. Conv. to SWI	D Dewatering method used:
Plug Back:Plug Back Total Depth	Location of fluid disposal if hauled offsite:
Commingled Docket No.:	- Ν/Δ
Dual Completion Docket No.:	
Other (SWD or Enhr.?) Docket No.:	Lease Name: License No.:
8-8-08 8-11-08 8-27-08	Quarter Sec. Twp. S. R. East West
Spud Date or Date Reached TD Completion Date or Recompletion Date	County: Docket No.:
Kansas 67202, within 120 days of the spud date, recompletion, workover of side two of this form will be held confidential for a period of 12 months i	with the Kansas Corporation Commission, 130 S. Market - Room 2078, Wichita, or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. Information f requested in writing and submitted with the form (see rule 82-3-107 for confidents well report shall be attached with this form. ALL CEMENTING TICKETS MUST 1 form with all temporarily abandoned wells.
All requirements of the statutes, rules and regulations promulgated to regula	ate the oil and gas industry have been fully complied with and the statements herein
are complete and correct to the beat of my knowledge.	RECEIVED
Signature New M. Cicles	KANSAS CORPORATION COMMISS KCC Office Use ONLY
Tille: Manager Date: 2-5-10	N Letter of Confidentiality Received
Subscribed and sworn to before me this 05 day of FEBLUARY	- Total of our and the second
20 10	If Denied, Yes Date: CONSERVATION DIVISIO Wireline Log Received WICHITA, KS
Notary Public V. A. J. M. J.	Geologist Report Received
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Date Commission Expires: 17 July 2012 NCTARIALS COMMISSI	ON NUMBER 759193 DEC 2 4 2009
MY COMMISSIO	ON EXPIRES JULY 17, 2012
	KCC WICHITA
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Operator Name: KAM	C Oil & Gas LLC		Léase N	ame: Lo	ether		Well #: _1Z		
Sec. 2 Twp. T2		East West	County:	wilson	1	***************************************			
ime tool open and clos	sed, flowing and shu s if gas to surface te	d base of formations pen t-in pressures, whether s st, along with final chart(eport.	hut-in press	ure reach	ed static level,	hydrostatic pre	ssures, bottom h	ole temperature, fluid	
Orill Stem Tests Taken	ethorous na reas na mpanga mangaina an apana mpana mpanapamagana in angainaga	☐ Yes ☐ No		Log	Formation	n (Top), Depth	and Datum	Sample	
(Attach Additional S	heels)	i i i i i i i i i i i i i i i i i i i		cog	·	т (тор), Берит	and Datum	(; Sample	
samples Sent to Geold	ogical Survey	☐ Yes ☑ No		Name			Тор	Datum	
Cores Taken Electric Log Run (Submit Copy)		Yes No	:			,			
ist All E. Logs Run:									
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Purpose of String	Size Hole Drilled	Size Casing Set (In Q.D.)	Weigh Lbs. / I		Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives	
Surf	8- 5/0 " ***	8 5/8			12'		12		
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	·				or year engages, of a second s				
The second secon		ADDITIONAL	CEMENTIN	G / SOUE	EZE RECORD				
Purpose:	Depth	Type of Cement	#Sacks U		Type and Percent Additives				
Perforate Protect Casing Plug Back TD Plug Off Zone	Top Bottom								
			-				+ APP Mark conserves delicate management and the star designation of the		
Shots Per Foot		ON RECORD - Bridge Plug			Acid, Frac	ture, Shot, Ceme	ent Squeeze Record	1	
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TUBING RECORD:	Size:	Set At: Packer At:			Liner Run:				
Date of First, Resumed P	Production, SWD or Enl	nr. Producing Meth	nod:	Flowing	- Pumpin	And the second s		er (Explain)	
Estimated Production Per 24 Hours	Oil I	3bls. Gas	Mcf ·	Water	Bt	ols.	Gas-Oil Ratio	Gravity	
DISPOSITIO	N OF GAS:	· '	METHOD OF (COMPLETI	, · · · · · · · · · · · · · · · · · · ·	nmingled		IN INTERVAL: RECEIVED NSAS CORPORATION COMM	
(If vented, Subr	mit ACO-18.)	Other (Specily)						FFB 0 8 2010	

Geological Report

Loether #1-Z 295' FSL/910' FEL Section 2, T29S-R14E Wilson Co., KS

Operator:

KAMC Oil & Gas LLC

Drilling Contractor:

L&S Well Service, Jim Lorenz, driller. Ingersoll-Rand air rotary drilling

w/auxiliary air compressor.

Wellsite Geologist:

Mark Brecheisen - On location from 0' to T.D.

Dates Drilled:

August 8th, 2008 – T.D.'D August 11th, 2008

Size Hole:

6 3/4"

Total Depth:

1217'

Elevation:

889

Drilling Fluid:

Compressed air with injected water

Surface Casing:

42' of 8 5/8" surface casing cemented to surface with 12 sacks cement.

Electric Logs Run:

Gamma Ray, Neutron, Induction, Temperature and Density Logs.

Formation Tops:

Formation tops were picked from the gamma ray, neutron and density

logs

Status:

Oil Well

Gas Shows:

Summit Shale

839 1/2'-841'

6mcf/day

Mulky Shale & Coal

852'-855 1/2'

9mcf/day

Weir Coal

1040 ¼'-1046 ¼'

14mcf/day

Oil Shows:

Hertha Limestone @ 520 1/2'-523 1/2' & 549'-552'

Weiser Sandstone @ 678 ½'-684' Oswego Limestone @ 830'-833'

Bartlesville Sandstone @ 1080'-1099 1/2'

Water Encountered:

230', 315'-345', Started Injecting water after cutting the Stark Shale @

433'-437'.

Notes:

Well cuttings were examined at rig and discarded. Some samples of

"zones of interest" were saved and examined with a binocular

microscope and black light.

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Field and Laboratory Sample Examination

0'-225'	Samples not examined.
225'-270'	Shale, medium dark grey, soft/greasy, locally limey.
270'-271 ½'	Shale, dark gray to black.
271 ½'-273 ½'	Shale, medium dark gray, calcareous in part.
273 ½'-275 ½'	Limestone, medium olive gray.
275 1/2'-292'	Shale, medium dark gray.
292'-308 1/2'	Limestone, medium brown to olive gray, fine crystalline, hard, dense sucrosic in
	part.
308 ½'-327'	Shale, medium dark gray.
	Top of the Kansas City Limestone @ 327' (& 562')
327'-433'	Limestone, medium olive gray to medium brown, fine crystalline, slightly
100	sucrosic, fossiliferous. Differential permeability throughout section – from very
	dense to sections with good inter-granular porosity. Slight formation water
•	increase on Drill Joint # 12 (345', 375').
433'-437'	Stark Shale, grayish black to black, carbonaceous, calcareous in part, >20% flat
	joint faces. Picked up enough water in Stark water injection commenced @ 465'.
437'-443'	Canville:Limestone, tan to olive gray, mottled, fine crystalline.
443'-452'	Shale, medium to medium dark gray, sandy, micaceous.
452'-477 ½'	Sandstone, medium dark gray, argillaceous in part, micaceous, fine grained, no
432 -411 /2	petroliferous odor/show.
477 ½'-485'	Hushpuckney Shale, medium dark gray.
485'-504'	Limestone, olive gray to brown, mottled fine crystalline, sucrosic, areas of fair
403 -304	
504'-517 ½'	inter-crystalline porosity.
517 ½'-552'	Shale, medium dark to dark gray, calcareous, and pyritic in part.
317 72 -332	Hertha Limestone, description of two samples within the Hertha are as follows:
	520 ½'-523 ½' Limestone, brownish gray to medium bluish, fine crystalline,
	hard, fairly dense with some vugular and fracture porosity, slight brown oil stain
•.	observed on flat fracture joints and in some vugs but no saturation within
	crystalline matrix; slight petroliferous odor to sample. 3% bright yellow
	hydrocarbon fluorescence, uneven poor milky blue cut, no residual oil to tray
	after cut. Petroliferous odor gone by 525'.
	549'-552' Limestone, dark gray to olive gray, micaceous, sucrosic, fine
	crystalline with some inter-crystalline porosity; strong petroliferous odor on
	samples, 70% dull yellow mineral fluorescence, 10% to 15% mottled bright
	yellow hydrocarbon fluorescence. Slow, fairly even poor milky blue cut, no
	residual oil to tray after cut.
Cos Chook @ 5252	Stoule Test 02 on 1/2 shallow of the man files
Gas Check @ 525'-	Stark Test – 0" on ½" choke = 0mcf/day
552'-554'	Shale gravish black to black
554'-558'	Shale, grayish black to black. Shale, black year corbonageous >20% flat joint feeds
558'-565 1/2'	Shale, black, very carbonaceous, >30% flat joint faces.
565 1/2'-572'	Shale, medium dark gray.
572'-582'	Limestone, tan to medium dark brown. Shale, dark gray.
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582'-592 ½'	Shale, medium gray, slightly silty/sandy, micaceous, calcareous in	part.
592 ½'-601'	Shale, medium dark gray.	•
	Shale, dark gray.	
601'-604 ½'	Lenapah Limestone, tan to medium olive gray, fine crystalline, slig	ht druse on
604 1/2'-624 1/2'		
	few samples.	
624 ½'-642'	Shale, medium dark gray, locally limey.	
•	Top of the Altamont Limestone @642' (247')	• •
•	Top of the Attamont Editestone (8,0.12 (2.1.)	
642'-653'	Limestone, medium to dark olive gray, fine crystalline, very hard, s	sucrosic,
012 033	mottled, fossiliferous poor inter-crystalline porosity.	
653'-655 ½'	Shale-grayish black.	
655 1/2'-678 1/2'	Shale, light to medium gray, locally micaceous/sandy.	
	Weiser Sandstone, light gray, fine grained sub angular to sub round	led grains.
678 ½'-684'	good friability, good inter granular porosity, fair to good petrolifero	ous odor in
•	good madinty, good litter grantial porosity, fair to good petromere	ration annears
	samples, traces of light brown oil stain on some rock samples, satur	orbon
	mottled and poor at best, 45%-50% verigated bright yellow hydroc	aroon
	fluorescence, slow to medium fast even fair milky blue cut, very sl	igni residuai
	oil show to tray after cut.	
684'-699'	Sandstone, light gray, very laminated, no petroliferous odor/show.	
699'-754'	Shale, medium dark gray, locally sandy/limey.	
	TV	
Gas check @ 706' -	Weiser Test -0 " on $\frac{1}{2}$ " = 0mcf/day (very slight blow observed)	•
754'-757 ½'	Limestone, dark brown, hard, dense, no porosity.	
757 ½'-758 ½'	Mulberry Coal, vitrain coal, pyritic, calcite appearing in sheets on i	many joint
131 /2 -130 /2	faces.	
758 ½'-762'	Shale, medium dark to dark gray, calcareous in part.	
150 72 -102	Share, mediam dark to dark gray, carear to at any	
*	Tope of the Pawnee Limestone @ 762' (+127')	
762'-782 ½'	Limestone, pinkish gray to medium olive gray, fine crystalline, suc	rosic, some
7 92 7 92 72	inter-crystalline porosity present.	
Gas check @ 766' - 1	Mulberry Test – 0" on ½" choke = 0mcf/day	
782 ½'-784 ½'	Lexington Shale, dark gray to grayish black.	
784 ½'-801 ½'	Shale, medium dark to dark gray.	
801 ½'-807 ½'	Peru Sandstone, light gray, fine grained, argillaceous.	
807 ½'-819 ½'	Shale, medium dark gray.	
007 72 -017 72	Share, mediani dank gray.	
	Top of the Oswego Limestone @ 819 ½' (+69 ½')	
819 ½'-836'	Limestone, medium to dark brown, FX/N, massive, hard, fossilifer	ous, 830'-833'
	had fair petroliferous odor in samples. 10%-12% mottled bright ye	ellow
š.	hydrocarbon fluorescence, medium fast fairly even milky blue cut.	No residual
	oil to tray after cut.	,
836'-839 ½'	Shale, dark gray to grayish black.	
839 ½'-841'	Summit Shale, grayish black to black.	•
841'-843 ½'	Shale, dark gray, calcareous.	
843 ½'-850 ½'	Limestone, olive gray to medium brown.	RECEIVED
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Gas Check @ 846' - Summit Test - 1" on $\frac{1}{2}$ " choke = 6mcf/day (all Summit)

850 1/2'-852'

Shale, grayish black.

852'-854 1/2'

Mulky Shale, black, carbonaceous, <10% flat joint faces.

854 1/2'-855 1/2'

Mulky Coal, thinly bounded vitrain coal, some conchoidal fractures on individual

rock samples. Calcite precipitation in between cleat surfaces on some samples,

dull metallic to vitreous luster.

855 ½'-857'

Shale, grayish black to dark gray.

857'-860'

Limestone, medium to dark olive gray.

Gas Check @ 859' - Mulky Test - 6" on $\frac{1}{2}$ " = 15mcf/day (9mcf from Mulky)

860'-863'

Shale, light gray.

863'-869 1/2'

Squirrel Sandstone, light to medium gray, fine grained, slight petroliferous odor,

no show.

869 1/2'-885'

Shale, medium dark gray, locally limey.

Shut Down Rig for evening on 8/8/08 @ 17:45 hrs - 886' Deep.

Resume Drilling on 8/11/08 @ 09:45 hrs

Gas Check @ 886' - Squirrel Test - 15" on 1/2" choke =15mcf/day-same

885'-910'

Shale, dark gray, locally limey streaks.

910'-911'

Bevier Coal.

911'-924 1/2'

Shale, medium gray.

Top of the Verdigris (Ardmore) Limestone @ 924 1/2' (-35 1/2')

924 ½'-925 ½'

Limestone, dark brown, fine crystalline, very hard, fossiliferous, pyritic.

925 ½'-927'

Shale, medium dark gray.

927'-928 ¼'

Croweburg Shale, Black, Carbonaceous, slightly pyritic.

928 ¼'-928 ¾'

Croweburg Coal.

928 3/4'-984 1/4'

Shale, medium to medium dark gray, silty/sandy in part, locally limey.

984 ¼'-985 ½'

Mineral Coal.

985 ½'-994 ½'

Shale, medium dark gray.

994 ½'-995 ½'

Scammon Coal.

995 1/2'-1011'

Shale, medium to medium dark gray, silty/sandy in part.

Gas check @ 1006' - Croweburg, Mineral, Scammon Test - 6" on ½" choke = 6mcf/day

1011'-1012 1/2'

Shale, grayish black to black, carbonaceous.

1012 ½'-1035 ½'

Shale, Light gray, soft, greasy, turning slightly silty in few scattered lenses.

1035 1/2'-1040 1/4'

Shale, grayish black.

1040 ¼'- 1046 ¼'

Weir Coal, thinly banded vitrain coal, very few conchoidal fractures, >80% flat

cleat faces. Fusain present in numerous samples, dull metallic to vitreous luster.

Excellent thickness for a coal.

1046 1/4'-1080'

Shale, medium dark gray with scattered lime streaks.

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983 ¾'- 984 ¾'

Mineral Coal.

984 ¾'- 996'

Shale, dark gray.

996'- 1003'

Lower Cattleman Sandstone, sand with interbedded dark gray shale, fine grained, friable to very friable, dark brown to gray. Low percentage of sand in sample, traces of black bitumen in some samples. Strong petroliferous odor, 60% variegated bright yellow hydrocarbon fluorescence. Slow, fairly even, fair milky

blue cut. Faint residual oil show to tray after cut.

1003'- 1011'

Shale, dark gray, locally limey.

Gas check @ 1006'- Lower Cattleman Test - 3 1/2" on 1/2" choke = 12mcf/day - same

1011'- 1016'

Shale, dark gray to grayish black.

1016'- 1033'

Shale, light to medium gray, locally silty/sandy.

1033'- 1038 1/4'

Shale, gravish black, slightly pyritic.

1038 1/4' - 1044'

Weir Coal, thinly banded vitrain/characin coal, few conchoidal fractures. >65%

flat cleat faces, slightly pyritic, dull metallic to vitreous luster. Had a definite

increase in gas from the Weir coal when checked.

1044'- 1059'

Shale, medium to medium dark gray, few lime streaks present.

Gas check @ 1051'- Weir Test- 22" on 1/2" choke = 29mcf/day (17mcf from Weir)

1059'- 1087'

Shale, medium dark gray with scattered sand lenses, few of which had a slight petroliferous odor. Two such samples were taken at the following depths:

- 1076'- 1078' Sandstone, fine grained, dark gray, fairly friable. Very argillaceous, very faint petroliferous odor w/traces of brown oil stain on few samples. 80% variegated dull yellow hydrocarbon fluorescence, no cut.
- 1082'- 1084' Sample mostly sandy shale. Sample had traces of medium brown oil stain on few surfaces, fine grained, friable, medium dark grayish color, very faint petroliferous odor. <3% variegated dull yellow hydrocarbon fluorescence, no oil cut.

Top of Bartlesville Sandstone @ 1087' (-200')

1087'- 1090'

Sandstone, dark gray, fine grained. Friable, fair petroliferous odor, traces of dark brown oil stain on some rock surfaces. 70% variegated dull yellow hydrocarbon fluorescence, uneven, slow, poor milky blue cut. No residual oil show to tray after cut.

1090'- 1092'

Sandstone, medium dark gray, fine grained, fairly hard. Micaceous, faint petroliferous odor, fairly even, medium brown oil stain on some samples. Saturation is better than previous sample, but still differential. 8-12% variegated bright yellow hydrocarbon fluorescence. Very slow, uneven, poor milky blue cut, no residual oil to tray after cut.

1092'- 1094'

Sandstone, dark gray, fine grained. Fairly friable, faint petroliferous odor, traces of dark brown oil stain on surfaces of some samples. Sample overall is mostly shale, 15% variegated bright yellow hydrocarbon fluorescence. Slow, even, poor milky blue cut, no residual oil show to tray after cut.

1094'- 1096'

Sandstone, dark gray to dark brown. Fine grained, good friability, fair petroliferous odor, even dark brown oil stain on rock samples. Saturation is even throughout rock fragments. 90% variegated dull yellow & bright yellow

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Top of Bartlesville Sandstone @ 1080' (-191)

1080'-1099 1/2'

A detailed description of two foot drilled samples will follow after a few observations: No visible free oil was observed in samples while washing them, while examining individual cuttings no oil was observed "popping out" of the individual rock fragments, a very slight rainbow sheen was observed on only a few sample fragments. No oil was observed on the drilling pit.

- 1080'-1082' Good petroliferous odor in sample. Slight gray to medium brown, fine grained, fairly hard, very micaceous. Mottled brown oil stain observed on some samples. 35%-40% variegated/some even dull yellow hydrocarbon fluorescence. Slow, fairly even, fair milky blue cut. No residual oil show.
- 1082'-1084' Good petroliferous odor in sample, fine grained, medium brown to medium gray, fairly friable. Good, mostly even brown oil stain on most of the samples. 80% variegated to even bright yellow hydrocarbon fluorescence. Slow, fairly even, fair milky blue cut. Faint residual cut to tray.
- 1084'-1086' Strong petroliferous odor in sample; fine grained. Even, strong brown oil stains on most samples. Good friability, 90% bright yellow hydrocarbon fluorescence. Fast, even, good MBC. Fair residual oil show to tray after cut.
- 1086'-1088' Fair petroliferous odor in sample, medium gray to light brown. Fine grained, fairly hard. Less micaceous than previous samples, sand visibly lighter in color. 20% mostly even bright yellow hydrocarbon fluorescence. Fast, even, fair milky blue cut. Faint residual oil show to tray after cut.
- 1088'-1090' Faint petroliferous odor in sample. Fine grained, very friable. Excellent inter granular porosity. Light brown oil stain observed on very few samples. <1% variegated bright yellow hydrocarbon fluorescence. No cut.
- 1090'-1092' Good petroliferous odor in sample. Tan to medium dark gray, fine grained. Good friability, good intergranular porosity. Most brown oil stain observed in some samples. 10% variegated, dull to bright hydrocarbon fluorescence. Uneven, fair, milky blue cut. No residual oil show to tray.
- 1092'-1094' Good to strong petroliferous odor in sample, mottled to even brown oil stain on many samples. Fine grained, good friability. 80% variegated bright yellow hydrocarbon fluorescence. Fast, even, strong milky blue cut. Very faint residual oil show.
- 1094'-1097' Good petroliferous odor in sample. Even brown oil stain on most samples. Fine grained, fair friability, very micaceous. 65% mostly even bright yellow hydrocarbon fluorescence. Fast, even, strong milky blue cut. Very faint residual oil.
- 1097'1099' Fair to good petroliferous odor in sample. Even brown oil stain on most samples. Fine grained, excellent friability. 50% even, bright yellow hydrocarbon fluorescence. Even, fair, milky blue cut. Very faint residual oil.
- 1099'-1102' Fair petroliferous odor in sample. Mottled, even brown oil stain on some samples. Fine grained, excellent friability. 35%-40%

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variegated, dull bright yellow hydrocarbon fluorescence. No residual oil show to tray.

• 1102'-1105' Faint petroliferous odor in sample, medium dark gray. Fine grained, fairly friable, sample consists of sand, laminated sand (20/60/20) and shale. 20%-25% variegated dull yellow hydrocarbon fluorescence. No oil stain observed on samples. Slow, uneven, poor milky blue cut. No residual oil in tray after cut.

1105'-1112' Sh

Shale, dark gray, laminated.

1112'-1117' 1117'-1123' Shale, medium dark gray, locally limey. Shale, light greenish gray, soft greasy.

1123'-1164'

Shale, medium dark to dark gray. Silty in part, locally limey.

Gas Check @ 1127' - Bartlesville Test - 10" on 1/2" choke = 20mcf/day (14 mcf increase)

Top of the Mississippian @ 1164' (-275')

1164'-1217'

Shale (60%), medium dark gray. Chert (30%), chalky to medium brown. Tripolitic texture. Limestone (10%), tan to medium brown, fine crystalline, no visible porosity, <2% dull yellow mineral fluorescence. No petroliferous odor/show. No hydrocarbon fluorescence.

T.D. @ 1217

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