PETERRA ENERGY SERVICES

Scale 1:240 (5"=100') Imperial
Measured Depth Log

Well Name: Younkin RDC #1
API: 15-109-23546
Location: NE - NE - SW - SW of Section 21-12s-27w - Logan County, KS
License Number: KCC Licensed# 34817 Region: Mid-Continent
Spud Date: 11/26/2018 Drilling Completed: 12/4/2018
Surface Coordinates: 1,000' FSL & 2,300' FWL
of Section 21-12s-27w
Bottom Hole: Same as Surface Coordinates
Coordinates:
Ground Elevation (ft): 2694' K.B. Elevation (ft): 2699'
Logged Interval (ft): 3600' To: 4676' Total Depth (ft): 4676'
Formation: Mississippian Type: Total Depth
Type of Drilling Fluid: Kansas City Spud Mud, Chemical Gelpac

Prepared by MUD LOG from Wellsight Systems 1.800.447.1534 www.Wellsight.com

OPERATOR

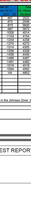
Company: Bickle Energies, LLC
Address: 2052 200th Ave
Hays, KS 67601

GEOLOGIST

Name: Garet Dinkel & Jeffrey Buck
Company: PETERRA Energy Services
Address: 110 South Main, Suite #510
Wichita, KS 67202
Phone: (316) 269-2015

PETERRA Energy Services
Jeffrey A. Buck
Licensed Petroleum Geologist

Operator: Bickle Energies, LLC
Well Name: Younkin RDC #1
Location: NE - NE - SW - SW of Section 21-12s-27w
Logged Interval: 3600' To: 4676'
Elevation: 2694' GL 2699' KB



REFERENCE WELLS- E-LOG TOPS

FORMATION	Reference Well #1 Younkin Trust 1-21	Subject Well Younkin RDC #1	Reference Well #2 Younkin Trust 1-21	Subject Well Younkin RDC #1
Anhydrite	1700	1704	1750	1748
Heebner Shale	3911	3915	3957	3955
Lansing-Kansas City	3951	3955	3997	3995
Stark Shale	4216	4220	4262	4260
Pawnee	4416	4420	4462	4460
Mississippian	4514	4518	4560	4558
Mississippian Chert	4555	4559	4601	4599
Mississippian Limestone	4570	4574	4616	4614
Kinderhook Shale	4600	4604	4646	4644
Viola	4615	4619	4661	4659
Simpson Shale	4640	4644	4686	4684
Simpson Sand	4655	4659	4701	4699
Arbuckle	4670	4674	4716	4714

COMMENTS: Due to extreme results in 2-21 Wm Younkin, we have recommended to drill additional offsets to Wm. Younkin Trust 1-21.

Respectfully Submitted,
Jeffrey A. Buck
Consulting Petroleum Geologist

DRILL STEM/TEST REPORT

TRIBITE TESTING, INC.

Bickle Energies, LLC
2052 200th Ave
Hays, KS 67601
ATTN: Jeff Buck

RJ1-10x-32w Younkin#1
Younkin RDC #1
Job Ticket: 14218 DNI# 1
Test Start: 2015.12.02 @ 11:00:00

GENERAL INFORMATION:

Formation: Arbuckle
Interval: 4670.00 - 4676.00 ft (5.00 ft)
Total Depth: 4676.00 ft
Hole Diameter: 7.88 in Hole Condition: Good

Test Type: Conventional Bottom Hole (Initial)
Tester: David Smith
Unit No.: 111
Reference Elevations: 2699.00 ft (KB)
2694.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8257 Inside
Press@RunDepth: 61.12 psig @ 4646.00 ft (KB)
Capacity: 8000.00 psig
Start Date: 2015.12.02 End Date: 2015.12.03
Last Calib.: 2015.12.03
Start Time: 11:00:00 End Time: 23:15:00

TEST COMMENT: IS: 6-10 @ 15 min
FS: 3-7 @ 15 min
IH: 2315 lb @ 15 min
FH: 2305 lb @ 15 min

Recovery

Length (ft)	Description	Volume (bbl)
1.00	100 % gc; 5 Gaseous 7 oil	0.00
120.00	GOCM 5% 95% o	1.68
240.00	GMCO 5%g 25%o 70%m	3.36
2.00	100 GM	0.00

Gas Rates

Choke (inches)	Pressure (psig)	Gas Rate (mcf/d)

Trilobite Testing, Inc Ref. No: 14218 Printed: 2015.12.03 @ 09:16:42

COMMENTS:

Due to the positive fluid and pressure results encountered on DST #1 (Johnson Zone), and the subsequent positive electric log evaluations, it was decided to run production casing to further evaluate this test interval.

In addition to the above recommendations, slight shows were noted (not tested) in the following intervals: 4197'-4199' & 4212'-4216'. Although the shows were minor, they should be evaluated prior to abandonment.

Respectfully submitted,

PETERRA Energy Services
Jeffrey A. Buck, Petroleum Geologist

Production casing (5 1/2" - 17#) was set @ a depth of 4674' and the 1st stage was cemented with 150 sxs. A DV tool was also run @ 2542' and it was cemented to the surface with 420 sxs. (12/04/15 - Quality Cementing)

ROCK TYPES

Anhy, Bent, Dolo, Lime, Sdst, Shale, Coal, Congl, Chert, Clay, Clyst, Lmst, Meta, Marl, Salt, Igne, Shcol, Ship, Sltst, Till

ACCESSORIES

GENERAL: Anhy, Argil, Bent, Brecha, Calc, Chert, Dol, Feldspar, Fossil, Glau, Glpc, Hvy, Kaol, Marl

Minor: Nodule, Pyr, Salt, Sandy, Sil, Sulphur, Tuff

Minor: Algae, Amoeba, Bafan, Blochit, Brachio, Bryozoa, Cephal, Coral

Coin, Echin, Foram, Fossil, Gastro, Ostra, Oxtra, Pelec, Pelmatozoan, Plant, Strom

Oolit, Lo Oolitic, Mixing, Sealing

TEXTURE: Recrystal, Chalky, Crystly, Frag, Fossil, Granul, Grnsdy, Microxln, Mudst, Packed, Packstd

STRINGER: Anhy, Bent, Dolo, Coal, Lmst, Sdst, Shale

OTHER SYMBOLS

POROSITY: Vuggy, Fracture, Intergran, Intercryst, Moldic, Organic, Pinpoint, Vuggy

SORTING: Poor, Fair, Moderate, Poor

ROUNDING: Rounded, Subrnd, Subang, Angular

OIL SHOW: Fluor, Spotted, Oaks, Stain, Gas show, New symbol

INTERVAL: Core

Dead, Dev, Live

EVENT: Lostcirculation, Mkr, Sidewall

Curve Track 1
Gamma (API)
Rate of Penetration (min/ft)
Gamma (API)

Lithology

Geological Descriptions

TG, C1-C5

ROP (min/ft)
GAMMA (units)

Gas units

3600.00 ft

Shale, gray, soft, sub blky, sligh slty, sn gyp

Lm, tan to buff, m bm and mott, v chky, sft to pr xln

Lm, tan, m bm, v chky, mottled, frag, sft

Lm, m tn to tan, frag frag, bnd, sl vuggy

Lm, m tn to tan, frm chky frags, bnd

Sh, dk gray, soft, m to frgl, v sligh slty, sn gyp

Lm, white, cream, rare red, m to p xln, v chky, sn sucr, sn dol

Lm, tan, m bm, v chky, sn sucr, sn dol

Lm, m tn to