OPERATOR

Company: Charles N. Griffin
Address: PO Box 347
Pratt, KS 67124

Contact Geologist:
Contact Phone Nbr:
Well Name: #3-9 Sherry — API: 15-007-24319
Location: Section 9-33S-12W — Field: Medicine Lodge-Boggs
Pool: — Country: USA
State: Kansas

Scale 1:240 Imperial

Well Name: #3-9 Sherry
Surface Location: Section 9-33S-12W
Bottom Location:
API: 15-007-24319
License Number:
Spud Date: 5/17/2017 — Time: 12:30 PM
Region: Barber County
Drilling Completed: 5/24/2017 — Time: 12:50 PM
Surface Coordinates: 330' FNL & 330' FWL
Bottom Hole Coordinates:
Ground Elevation: 1535.00ft
K.B. Elevation: 1546.00ft
Logged Interval: 3400.00ft — To: 5200.00ft
Total Depth: 5200.00ft
Formation:
Drilling Fluid Type: Chemical (MudCo)

SURFACE CO-ORDINATES

Well Type: Vertical
Longitude: — Latitude:
N/S Co-ord: 330' FNL
E/W Co-ord: 330' FWL

LOGGED BY

Company: TerraTech Energy Service LLC.
Address: 1632 S. West St. Suite 12
Wichita, KS 67208
Phone Nbr: 316-617-3959
Logged By: Geologist — Name: Bruce Reed

CONTRACTOR

Contractor: WW Drilling
Rig #: 14
Rig Type: mud rotary
Spud Date: 5/17/2017 — Time: 12:30 PM
TD Date: 5/24/2017 — Time: 12:50 PM
Rig Release: 5/25/2017 — Time: 3:15 AM

ELEVATIONS

K.B. Elevation: 1546.00ft — Ground Elevation: 1535.00ft
K.B. to Ground: 11.00ft

NOTES

Surface Casing: 8-5/8" at 261'
Production Casing: 5-1/2" at 4909'

Daily Penetration:		
05/17/17	SPUD @ 12:30 PM	
05/18/17	792'	
05/19/17	3135'	
05/20/17	4062'	
05/21/17	4684'	
05/22/17	4717'	
05/23/17	4875'	
05/24/17	4951'	RTD @ 12:50 PM
05/25/17	5200'	Rig released @ 3:15 AM

FORMATION TOPS

Formation	Sample Top	Datum	Log Top	Datum	Comparison*
LeCompton	3455'	-1909	3454'	-1908	+3
Elgin	3488'	-1942	3488'	-1942	+2
Heebner	3684'	-2138	3684'	-2138	-10
Lansing	3867'	-2321	3865'	-2319	+12
Stark	4251'	-2705	4250'	-2704	+14
B/KC	4344'	-2798	4343'	-2797	+11
Mississippian	4422'	-2876	4420'	-2874	+19
Kinderhook	4578'	-3032	4577'	-3031	+18
Viola	4687'	-3141	4684'	-3138	+20
Simpson	4790'	-3244	4788'	-3242	+16
Simpson Sand	4796'	-3250	4794'	-3248	+22
Arbuckle	4928'	-3382			

*Reference Well: Val Energy #1-9 Sherry, 1600' FNL / 1320' FWL, Section 9-33S-12W
Barber County, Kansas

ROCK TYPES

Dolprim — shale, gry — Ss
Lmst fw7> — Carbon Sh

ACCESSORIES

MINERAL
Dolomitic
Chert White
Argillaceous/Shale

OTHER SYMBOLS

INTERVALS: Core; DST

Oil Show: Good Show; Fair Show; Poor Show; Spotted or Trace; Questionable Stn; Dead Oil Stn; Fluorescence; Gas

DST: DST Int; DST alt; Core; tail pipe

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Curve Track #1: ROP (min/ft); Gamma (API)
Depth — Interval — Cored Interval — DST Interval — Lithology — Oil Show — Geological Descriptions
TG, C1 - C5: Total Gas (units); C1 (units); C2 (units); C3 (units); C4 (units)

Geologist on site at 3395'

Shale: dark-medium gray, soft

Shale: dark-medium gray, soft

Lecompton 3455' (-1909)

Limestone: cream-tan, fine crystalline, poor visible porosity, dense

Shale: dark-medium gray, some black scattered pieces, tan-brown limestone

Elgin 3488' (-1942)

Shales: various shades gray, sub silty to sandy, no shows

Circulated at 3522' Shale: dark-medium gray-black, sub carbonaceous, soft, very slightly silty, no shows

Shales: lighter gray with trace black, soft, very slighty silty, no shows

Shale: slightly lighter shades of gray, some pieces black, very slightly silty, no shows

Sand: light-gray-light brown, very fine grained, moderatley friable, looks tite, no odor in fresh, no show free oil or gas

Shale: light gray with some interbedded cream sandstone, very fine grained, looks tite, no show

Some scattered light gray shale

Shale: as above

Limestone: tan-brown, fine crystalline to almost micro-crystalline, poor visible porosity, dense, scattered gray shale

Shale: few pieces black, organic, soft

Heebner 3684' (-2138)

Shale: dark-medium gray-black with some dense, dark tan limestone

Shale: various shades gray-black-red

Shales: more gray, very slightly silty to sandy

Shales: gray-brown-olive, soft, few pieces silty

Sandstone: clear to frosted white, tite, no shows

Sandstone: as above

Sandstone: clear to frosted white, fine to slightly medium grained, sub angular, moderatley friable, no shows

Sandstone: as above, more fine grained, tite, micaceous with no shows

Shale: gray-green, some brown, micro-crystalline limestone

Lansing 3867' (-2321)

Limestone: cream-white, fine crystalline, sub chalky, no shows

Limestone: cream-light gray, fine crystalline, very slightly fossiliferous, dense, no shows

Limestone: buff-cream-gray, fine crystalline, sub chalky, no shows

Limestone: as above

Limestone: buff-cream-gray, fine crystalline, slightly fossiliferous, poor visible porosity, dense

Limestone: as above, appears more dense

Shale: gray

Limestone: cream-brown-light gray, fine crystalline, dense, sub chalky in part

Limestone: more cream-light tan, dense

Shale: gray with some dense limestone

Limestone: light tan-cream-gray, fine to few pieces micro-crystalline, dense, sub shaley

Limestone: cream-tan-white, fine crystalline, sub chalky

Limestone: cream-white, fine crystalline, increase chalky, sub shaley

Limestone: cream-white, fine crystalline, very slightly fossiliferous, trace black stain, no show free oil or odor, sub chalky

Limestone: medium gray-cream-white

Limestone: gray-cream-white, fine crystalline, sub chalky, no shows

Limestone: light tan-cream-white, fine crystalline, poor visible porosity, sub chalky, trace gray chert, no shows

Limestone: light tan-gray, fine crystalline, slightly fossiliferous, poor visible porosity, looks dense, no shows

Limestone: medium tan-cream, fine crystalline to fossiliferous, poor visible porosity, trace chalky

Stark 4251' (-2705)

Shale: black, carbonaceous

Limestone: chalky white, soft, samples wash white, no shows

Limestone: cream-tan-white, fine crystalline, poor visible porosity, sub chalky

Limestone: cream-gray with abundant dark gray-black, carbonaceous shale, no shows

Shale: dark-medium gray, medium soft, some cream-gray-brown, poor visible porosity, dense

Limestone: cream-medium gray-tan, dense

B/KC 4344' (-2798)

Shales: dark-medium gray, with cream-tan limestone

Limestone: cream-light gray, fine crystalline to slightly fossiliferous, scattered pale green, sub waxy shales

Limestone and Shales: cream-light gray, fine crystalline to micro-crystalline, dense with scattered gray-green-red shale

Mississippian 4422' (-2876)

Limestone: cream-light tan, fine crystalline to very fine crystalline, no visible porosity, scattered medium gray-gray-green shale, few pieces black

Circulated at 4450 30" sample Scattered dolomitic limestone: light gray-brown-tan, fairly sucrosic, poor interbedded-crystalline porosity, slight odor in fresh sample, very light scum free oil. 60" sample as above

Limestone: cream-gray-gray-green, fine crystalline, with some scattered light tan dolomite, fairly sucrosic, poor interbedded-crystalline porosity, few pieces scattered vari-colored vitreous chert, few pieces dark stain, very faint odor with very light scum of oil

Limestone: pale green-cream-gray, fine to slightly medium crystalline, poor visible interbedded-crystalline porosity, very rare pieces chert, vitreous, semi-opaque, some salmon-red shaley material, no shows

Limestone: as above, with scattered red-green shales and varicolored chert, no shows

Limestone: more cream-light tan, fine crystalline, poor to no visible porosity, dense, trace vitreous chert, no shows

Limestone: light tan-cream-gray, fine to very slightly medium crystalline, poor inter-crystalline porosity, appears dense, trace chert, no shows

Limestone: light tan-cream-some gray, fine crystalline, dense, scattered white-light gray, vitreous chert, opaque, no shows

Kinderhook 4578' (-3032)

Shale: dark gray

Shale: dark gray-gray-green

Shale: dark-medium gray, some black, hard

Shale: light gray-green, some black, soft

Shale: flood black, carbonaceous, soft

Circulated at 4684' Shale: gray-brown-black

Viola 4687' (-3141)

Viola Core Sample (hand samples) 4693-4717
4693- Dolomite, lt tan, fine- med xln w/re-xln calcite dev. pp & fractured porosity w/ light brown free oil bleeding, good odor
4696- Dolomite, brown, very fine con w/ abundant fossil presence(ID), scattered free oil drops form on edge pieces (fractures) & saturated in the darker area of the sample
4699- Dolomite - White to cream, v. Fine xln w/ scattered (rare) pp porosity & live oil shows, pyrite dev in some pore spaces
4702- Dolomite, White to cream, v. Fine xln, poor visible porosity, barren, no odor, no show
4705-Dolomitic Lime, White to tan, fn xln w/ abundant calcite xln, fractured edges w/dark mineral stain. No odor, no shows
4708- Shale, grey-dark brown, calcareous, firm, slight blocky w/ poor visible laminations. No hydrocarbon indications.
4711 - Dolomite, shades of grey, v.fine to fine xln a/ interbedded fine xln limestone(cream), w/ rounded (dark colored) shale inclusions
4714-Dolomitic Limestone, cream to grey, coarse xln w/ abundant calcite crystalline dev. Scattered fossils(brachiopod) no hydrocarbon indications.
4717-Dolomite, light tan, fine-med xln, transition to chert visible w/residual white siliceous material; CH-dark brown, sub translucent, glassy w/ conchoidal fracs, fossiliferous

Dolomite: cream-gray, fine crystalline, dense, no shows

Dolomite: cream-light brown, medium crystalline, no shows

Dolomite: cream-light brown, fine crystalline, some white, vitreous, opaque chert, no shows

Dolomite: as above, with tan, micro-crystalline limestone, dense, sub cherty, few pieces black stain

Limestone: tan-light brown, fine crystalline, poor to no visible porosity, dense, sub cherty, no shows

Limestone: cream, micro-crystalline, tan-white, vitreous chert

Limestone: tan-light brown, fine to micro-crystalline, cherty

Simpson Sand 4796' (-3250)

One piece green shale

4808' drilling flood Simpson Shale

Circulated at 4808' 30" sample Sandstone: clear-frosted white, fine to medium grained, well sorted, abundant clays, no odor or no show. 60" sample as above

Circulated at 4816' 30" sample Sandstone: clear to frosted white, fine to medium grained, sub rounded, odor on break, rare light film in clean cluster. 60" sample few frosted sandstone clusters, slight odor, no show free oil

Circulated at 4832' Sandstone: clusters, abundant, clear to frosted white, medium grained, friable, few pieces dead oil stained, mostly barren, very faint odor

Shale: vari-colored

Shale: lots of shale

Shale: lots of shale

Shale: pale green-turquoise-blue, sub waxy

Shales: pale green-turquoise-blue, soft, sub waxy

Arbuckle 4928' (-3382)

Dolomite: buff-cream, fine crystalline, poor inter-crystalline porosity, appears dense and tite

Dolomite: buff-cream-light gray, fine to slightly medium crystalline, poor visible porosity, dense, sub chalky, samples wash white

Dolomite: buff-tan-light gray, fine crystalline to medium crystalline, poor to fair inter-crystalline porosity, decrease to no chalky

Dolomite: cream-light tan-gray, fine to medium crystalline, trace coarse crystalline, poor to fair inter-crystalline porosity, trace oolitic chert

Dolomite: light tan, fine to medium crystalline, some scattered coarse crystalline, with vugular porosity

Dolomite: as above, more white, looks tite, scattered white chert

Dolomite: light tan, medium to coarse crystalline, fair to good inter-crystalline porosity, trace vugular porosity

Dolomite: as above

Dolomite: cream-light tan-gray, more coarse crystalline

Dolomite: light tan, medium to coarse crystalline, fair visible inter-crystalline porosity with some vugular porosity

Dolomite: as above

Dolomite: cream-white-light tan, fine to medium, some coarse crystalline, sub chalky

Dolomite: cream-light tan, fine to medium crystalline, poor visible porosity, little chalky

Depth	4085'
Mud Weight	9.8
Funnel Viscosity	54
API Filltrate	8.8
Chloride	6,000

Extractor unit not functioning

Depth	4684'
Mud Weight	9.5
Funnel Viscosity	54
API Filltrate	8.8
Chloride	4,500

Depth	4717'
Mud Weight	9.4
Funnel Viscosity	48
API Filltrate	8.0
Chloride	4,000

Switched out iBall unit

Depth	5036'
Mud Weight	9.3
Funnel Viscosity	56
API Filltrate	8.8
Chloride	5,000