

Geological Report

Baker #SCZ-48
NE-SW-SE-NW, Sec. 26, T18S, R22E
2145' FNL & 1815' FWL
Miami County, KS
API #15-121-30520-00-00

Operator: SCZ Resources LLC, Jorge Ranz, 8614 Cedarspur Drive, Houston, TX,
77055

Drilling Contractor: Evans Energy Development

Well Site Geologist: Mark Brecheisen

Date Drilled: July 24th, 2014

Size of Hole: 6"

Total Depth: 420'

Elevation: 971' (estimated)

Drilling Fluid: Compressed air with fresh water injection

Surface casing: 20' of 7" casing cemented with 3 sacks of cement to surface

Formation Tops: Formation tops have not been correlated to electric logs

Field Name: Paola-Rantoul

Status: Oil Well

Oil Shows: Hepler Sandstone @ 296'-304'
Peru Sandstone @ 330'-350'

Water Encountered: Water encountered throughout the Peru Sandstone section

On Location: July 24th, 2014, 8:12 AM. Drilling depth of 310'; left location @ TD 420'
@ approximately 9:00 AM.

Notes: Well cuttings were examined at rig and discarded. Samples of zones of interest were saved and examined with binocular microscope and UV light.

Top of the Hepler Sandstone @ 296'

- 296'-298' Sandstone; light gray to dark brown. Very fine-grained. Well-sorted with angular to subrounded grains. Sample very shaley overall. Laminated in part. Micaceous. Friability overall excellent. Abundant vugular porosity observed on many sample surfaces. Mottled to laminar to even, dark brown oil staining on sample surfaces. Saturation overall excellent. Strong petroliferous odor to sample. Dried free oil on sample surfaces. 65% mostly mottled to even, variegated yellow hydrocarbon fluorescence. Fast, even, very strong milky blue cut; fair residual oil show to tray after cut
- 298'-300' Sandstone; light gray to dark brown. Very fine-grained. Well-sorted with angular to subrounded grains. Micaceous. Laminated in part. Poorly-cemented. Friability overall very good to excellent. Abundant vugular porosity observed on many sample surfaces. Mottled to laminar to mostly even, medium-dark to dark brown oil staining on sample surfaces. Saturation overall very good. Many sample surfaces exhibit dried free oil staining. Many freshly broken samples exhibit live oil after sample was dried. Excellent petroliferous odor to sample. 70-75% mottled to mostly even, variegated yellow hydrocarbon fluorescence. Fast, streaming to even, good to very good milky blue cut; faint to fair residual oil show to tray after cut
- 300'-302' Sandstone; light gray to medium-dark brown. Very fine-grained. Well-sorted with angular to subrounded grains. Sample shalier than previous sample. Argillaceous. Micaceous. Traces of interbedded limestone present. Friability overall very good to excellent. Vugular porosity observed on some sample surfaces. Mostly mottled to even, medium to medium-dark brown oil staining on many sample surfaces. Saturation overall good. Good petroliferous odor to sample. 55% mottled to even, medium-bright yellow hydrocarbon fluorescence. Fairly fast, bleeding to streaming, fair milky blue cut; very faint residual oil show to tray after cut
- 302'-304' Sandstone; light gray to medium-dark brown. Mottled. Very fine-grained. Well-sorted with angular to subrounded grains. Sample is very micaceous. Argillaceous. Calcareous in part. Friability overall very good. Traces of vugular porosity on some sample surfaces. Pinpoint to mottled to even, light to medium-dark brown oil staining on sample surfaces. Saturation overall fair. Good petroliferous odor to sample. 45-50% mostly mottled to even, medium-bright yellow hydrocarbon fluorescence. Slow, bleeding, poor milky blue cut; no residual oil show to tray after cut

Note: Pit was covered with oil after drilling through the Hepler Sandstone section

Top of the Peru Sandstone @ 330'

330'-332' Sandstone; light brown. Very fine to fine-grained. Well-sorted with angular to well-rounded grains. Slightly micaceous. Very poorly-cemented. Friability overall excellent with abundant vugular porosity observed on many sample surfaces. Even, light brown oil staining on sandstone sample surfaces. Saturation overall even; poor. Sample looks "washed out". Sample had a faint petroliferous odor. Pinpoint free oil show to sample surfaces; faint free oil show to the pit. 15% slightly mottled to mostly even, variegated yellow hydrocarbon fluorescence. Fairly fast, blooming, poor milky blue cut; no residual oil show to tray after cut

Note: Traces of interbedded limestone present in sample

332'-334' Sandstone; light to medium brown. Mottled in part. Interbedded limestone present in sample. Very fine to fine-grained. Well-sorted with angular to subrounded grains. Mottled to mostly even, light to medium brown oil staining on many sample surfaces. Friability overall very good to excellent with abundant vugular porosity observed on many sample surfaces. Freshly broken surfaces appear wet with water; probably as a result of flooding from nearby injection well. Saturation overall poor to fair. Faint petroliferous odor to sample. Pinpoint free oil show to few sample surfaces; slight free oil show to pit. 75% mostly mottled to even, variegated yellow hydrocarbon fluorescence. Fairly fast, blooming, fair milky blue cut; very faint residual oil show to tray after cut

334'-336' Sandstone; light gray to medium-dark brown. Calcareous in part. Very fine to fine-grained. Well-sorted with angular to subrounded grains. Slightly micaceous. Traces of interbedded limestone present. Friability overall very good to excellent with abundant vugular porosity observed on many oil-stained sandstone sample surfaces. Slightly mottled to mostly even, medium to medium-dark brown oil staining on sample surfaces. Saturation overall fair to good. This sample has had less water infiltration than previous two samples. Sample had a good petroliferous odor. Fair to good free oil show to sample surfaces and to pit. 35-40% slightly mottled to even, medium-bright yellow hydrocarbon fluorescence. Fairly fast, mostly even, fair to good milky blue cut; very faint residual oil show to tray after cut

336'-338' Sandstone; medium-dark brown. Slightly mottled in part. Very fine to fine-grained. Well-sorted with angular to subrounded grains. Interbedded limestone present in sample. Slightly micaceous. Friability overall very good to excellent with abundant vugular porosity observed on many sample surfaces. Slightly mottled to mostly even, medium-dark brown staining on

sample surfaces. Saturation overall very good. Sample had a very good petroliferous odor. Good free oil show to sample surfaces and to pit. 85% laminar to mostly even, medium-bright yellow hydrocarbon fluorescence. Fast, blooming to even, good milky blue cut; faint residual oil show to tray after cut

338'-340'

Sandstone; light gray to dark brown. Very fine to fine-grained. Well-sorted with angular to subrounded grains. Calcareous in part with abundant limestone present in sample. Friability overall very good to excellent. Abundant vugular porosity observed on sample surfaces. Slightly mottled to mostly even, medium-dark to dark brown oil staining on sample surfaces. Saturation overall very good. Sample had a strong petroliferous odor. Very good free oil show to sample surfaces and to pit. 80% even, medium-bright yellow hydrocarbon fluorescence. Very fast, even, very strong milky blue cut; fair residual oil show to tray after cut

340'-342'

Sandstone; light gray to dark brown. Very fine to fine-grained. Well-sorted with angular to subrounded grains. Sample very shaley and laminated in part. Micaceous. Few traces of interbedded limestone present. Calcareous in part. Friability overall good to very good with vugular porosity observed on many sample surfaces. Slightly mottled to laminar to even, medium to dark brown oil staining on sample surfaces. Saturation overall fair to good. Very good petroliferous odor to sample. Very good free oil show to sample surfaces; strong free oil show to pit. 50-55% mottled to laminar to even, variegated yellow hydrocarbon fluorescence. Instantaneous, even, very strong milky blue cut; fair to good residual oil show to tray after cut

342'-344'

Sandstone; light gray to dark brown. Mottled in part; laminated in part. Very fine to fine-grained. Well-sorted with angular to subrounded grains. Traces of interbedded limestone present in sample. Sandstone much more laminated than previous sample. Calcareous in part. Argillaceous in part. Friability overall fair to good. Mottled to laminar to even, medium-dark to dark brown staining on some sample surfaces. Saturation overall fair. Sample had a strong petroliferous odor. Very good free oil show to sample surfaces and to pit. 45% mottled to laminar to even, variegated yellow hydrocarbon fluorescence. Fast, streaming to blooming, good milky blue cut; faint to fair residual oil show to tray after cut

344'-346'

Sandstone; light gray to dark brown. Very laminated. Very fine to fine-grained. Well-sorted with angular to subrounded grains. Some freshly broken sandstone sample surfaces appear to be wet with water which is a possible sign of water infiltration from previous flooding. Friability overall fair to good. Vugular porosity observed on few sample surfaces. Interbedded limestone present in sample. Mottled to laminar to even, medium-dark to dark brown oil staining on some sample surfaces.

Saturation overall poor to fair. Sample had a good petroliferous odor. Good free oil show to sample surfaces and to pit. 35% mottled to laminar, variegated yellow hydrocarbon fluorescence. Very slow, bleeding, very poor milky blue cut; no residual oil show to tray after cut

346'-348'

Sandstone; light gray to dark brown. Very fine to fine-grained. Well-sorted with angular to subrounded grains. Argillaceous/calcareous in part. Overall friability fair to good. Vugular porosity observed on many sample surfaces. Slightly mottled to mostly even, dark brown oil staining on sample surfaces. Saturation overall good to very good. Sample had a very strong petroliferous odor. Good free oil show to sample surfaces and to pit. 75-80% mostly mottled to even, variegated yellow hydrocarbon fluorescence. Fairly fast, streaming to blooming, fair milky blue cut; very faint residual oil show to tray after cut

348'-350'

Sandstone; light gray to dark brown. Mottled in part. Very fine to fine-grained. Well-sorted with angular to subrounded grains. Sample very laminated. Slightly calcareous. Carbonaceous in part. Friability overall fair. Mottled to laminar to even, dark brown to black staining on sample surfaces. Saturation overall fair to good. Sample had a good petroliferous odor. Good free oil show to sample surfaces and to pit. 40% mottled to laminar to even, variegated yellow hydrocarbon fluorescence. Fast, blooming to even, very good milky blue cut; faint to fair residual oil show to tray after cut

Note:

Picked up water throughout the Peru Sandstone section; probably from flooding. Driller needed only half the water he normally uses when circulating to produce the same amount of water at surface

TD 420' @ approximately 9:12 AM, July 24th, 2014

