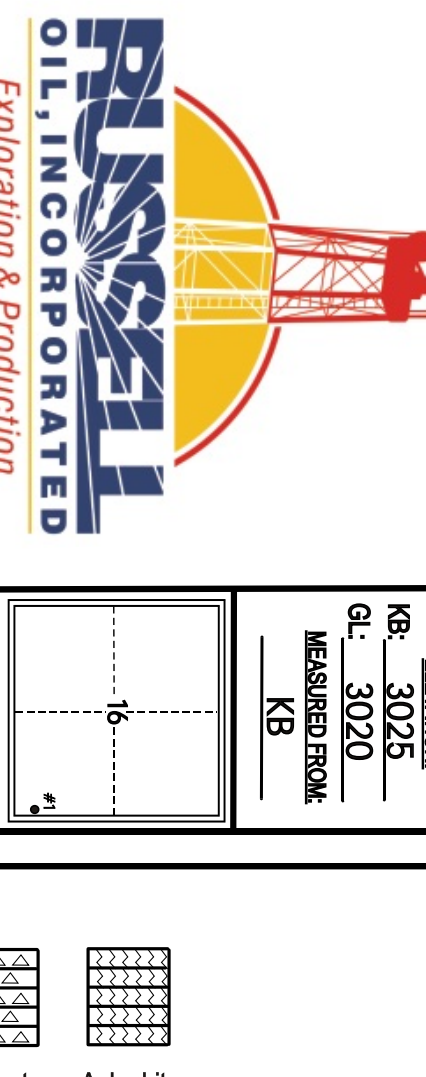


KITT NOAH

PETROLEUM GEOLOGIST
Kansas License #229



GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

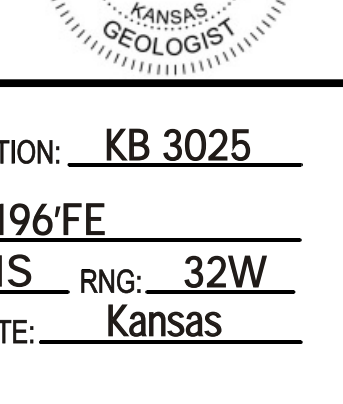
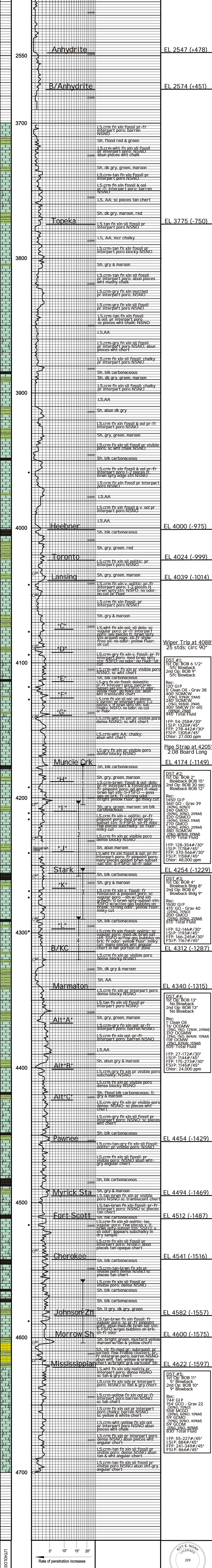
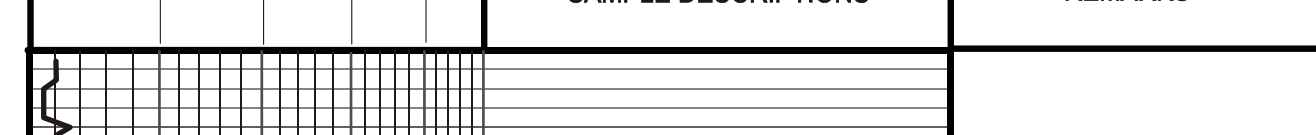
EL ELEVATION: **KB 3025**
GL: **3020**
MEASURED FROM: **KB**
#15-109-21-458

OPERATOR: Russell Oil, Inc.
LEASE: HR Unit **WELL NO.:** #1
LOCATION: 496/FS & 196/FE **SEC.:** 16 **TWP.:** 11S **RNG.:** 32W

COUNTY: Logan **STATE:** Kansas

CONTRACTOR: WW Drilling Rig #2
COM.: 5-2-2016 **COMP.:** 5-18-2016
RTD: 4700 **LTD:** 4700
HEEDNER: 4000 (-975) **DRILLING TIME SAVED FROM:** 3700 TO TD
TOBILT: 4024 (-999) **DRILLING TIME SAVED FROM:** 3700 TO TD
LANSDING: 4039 (-1014) **GEOLOGICAL SUPERVISION FROM:** 3730 TO TD
STARK: 4284 (-1229) **MUD UP:** 3400 **MUD TYPE:** GEMERAL
B/KC: 4312 (-1287) **MUDDO - REID AKKINS:** E
Marmaton: 4340 (-1315) **DRILL STEWARTS TAKEN:** 5
Pawnee: 4454 (-1429) **Tribolite - Bradley Walters:**
Cherokee: 4541 (-1516) **SURVEYS:** Pioneer Energy Services
Mississippi: 4632 (-1597) **Dial Induction Porosity**
LTD: 4700 (-1675) **Microlog**

LEGEND



ELEVATION: **KB 3025**

OPERATOR: Russell Oil, Inc. **LOCATION:** 496/FS & 196/FE
LEASE: HR Unit **WELL NO.:** #1 **SEC.:** 16 **TWP.:** 11S **RNG.:** 32W
API: 15-109-21-458 **FIELD:** Rumback **COUNTY:** Logan **STATE:** Kansas