



**MIDWEST SURVEYS**  
LOGGING - PERFORATING - CONSULTING SERVICES  
P.O. Box 68, Osawatomie, KS 66064  
913 / 755 - 2128

**GAMMA RAY / NEUTRON / CCL**

File No.

API # 15-207-28,611

Company **Hass Petroleum, LLC**

Well **Arnold No. 3i-HP**

Field **Winterscheid**

County **Woodson** State **Kansas**

Location **630' FNL & 580' FEL  
SW-NE-NE-NE**

Other Services  
**Perforate**

Sec. **35** Twp. **23s** Rge. **14e**  
Permanent Datum **GL** Elevation **1134'**  
Log Measured From **GL**  
Drilling Measured From **KB 7' from GL**

Elevation  
**K.B. 1141'  
D.F. NA  
G.L. 1134'**

|                        |                |     |            |  |  |
|------------------------|----------------|-----|------------|--|--|
| Date                   | 08-27-2013     |     |            |  |  |
| Run Number             | One            |     |            |  |  |
| Depth Driller          | 1735.0         |     |            |  |  |
| Depth Logger           | 1721.0         |     |            |  |  |
| Bottom Logged Interval | 1720.0         |     |            |  |  |
| Top Log Interval       | 200.0          |     |            |  |  |
| Fluid Level            | Full           |     |            |  |  |
| Type Fluid             | Water          |     |            |  |  |
| Density / Viscosity    | NA             |     |            |  |  |
| Salinity - PPM Cl      | NA             |     |            |  |  |
| Max Recorded Temp      | NA             |     |            |  |  |
| Estimated Cement Top   | 0.0            |     |            |  |  |
| Equipment No.          | Location       | 107 | Osawatomie |  |  |
| Recorded By            | Steve Windisch |     |            |  |  |
| Witnessed By           | Mark Haas      |     |            |  |  |

| RUN |        | BORE-HOLE RECORD |        |        |        | CASING RECORD |        |  |
|-----|--------|------------------|--------|--------|--------|---------------|--------|--|
| No. | BIT    | FROM             | TO     | SIZE   | WGT.   | FROM          | TO     |  |
| One | 12.25" | 0.0              | 40.0   | 8.625" | 22.0 # | 0.0           | 40.0   |  |
| Two | 6.75"  | 40.0             | 1735.0 | 4.50"  | 10.5 # | 0.0           | 1725.0 |  |
|     |        |                  |        |        |        |               |        |  |
|     |        |                  |        |        |        |               |        |  |

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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

Drilling Contractor :  
**Skyy Drilling, LLC**  
**Rig # 3**

Database File: arnold3ihp.db  
Dataset Pathname: pass1  
Presentation Format: gr-n-ccl  
Dataset Creation: Tue Aug 27 11:20:58 2013 by Log SCH 111116  
Charted by: Depth in Feet scaled 1:240

|     |                 |     |          |    |               |     |
|-----|-----------------|-----|----------|----|---------------|-----|
| 0   | Gamma Ray (cps) | 150 | -1 CCL 1 | 10 | Neutron (cps) | 210 |
| 150 | Gamma Ray (cps) | 300 |          |    |               |     |













