

LITHOLOGY STRIP LOG

WellSight Systems

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

Well Name: **Murfin Drilling Company, Inc. McNeil Trust #1-11** D&A
Location: **Approx SE NW NE SE Section 11-T18S-R36W**
License Number: **API #15-203-20240** Region: **Wichita Co., KS**
Spud Date: **Oct. 21, 2013** Drilling Completed: **Nov. 2, 2013**
Surface Coordinates: **2070' FSL & 930' FEL Section 11-T18S-R36W**

Bottom Hole Coordinates:
Ground Elevation (ft): **3240** K.B. Elevation (ft): **3251**
Logged Interval (ft): **3600** To: **5070** Total Depth (ft): **5070**
Formation: **Mississippian RTD 5070 (-1819), LTD 5074 (-1823).**
Type of Drilling Fluid: **Chemical Displace @ 3300'**

Printed by WellSight Log Viewer from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: **Murfin Drilling Company, Inc.**
Address: **250 N. Water Ste 300**
Wichita, Kansas 67202

GEOLOGIST

Name: **Mikeal K. Maune**
Company: **Consulting Petroleum Geologist - Kansas Licensed No. 210**
Address: **Wichita, Kansas**
Office: 316-722-8173

COMMENTS

Surface Casing: Spud @ 4:00 pm on 10/21/2013. Set 8 5/8" surf casing @ 222'. Allied cmt w/200sxs of comm 3%cc. PD @ 8:30 pm 10/21/2013.

Production Casing: D&A November 3, 2013

Deviation Surveys: 3/4 @ 223', 1/2 @ 730', 1/2 @ 1513', 1/2 @ 2266', 1/2 @ 3018', 1 @ 3600', 1 @ 3706', 1 @ 3801', 1 3/4 @ 3910', 3 @ 4005', 2 @ 4052', 2 1/2 @ 4100', 2 3/4 @ 4160', 3 @ 4208', 3 1/2 @ 4260', 4 @ 4320', 4 @ 4380', 3 1/4 @ 4440', 5 @ 4490', 4 @ 4553', 4 3/4 @ 4605', 5 @ 4655', 4 @ 4709', 4 1/2 @ 4772', 5 @ 4791', 4 1/4 @ 4866', 4 1/2 @ 4960', 3 1/2 @ 5070 RTD.

Pipe Strap: Bit Trip @ 3600'. Strap 3040.22. Board @ 3040.07. Strap .15 ft long to Board.

Rig: **Murfin Drilling Co., Inc Rig #22**
Bit Record:
Bit #1 12 1/4" HTC GT-C1 in @ GL, out @ 223'.
Bit #2 7 7/8" PDC HTC DP506F in @ 223', out @ 3600'.
Bit #3 7 7/8" HTC GX22S in @ 3600', out @ 4791'.
Bit #4 7 7/8" PDC HTC DP506F in @ 4791', out @ 5070 RTD.

Gas Detector: None

Mud System: **Morgan Mud Inc.**

DSTs: None























OH Logs: **Pioneer Wireline Services, LLC**
DIL, CNL/CDL, MEL/BHCS.

Note: OH Log depths appear to be 2 feet deep to Rotary depths at the top of the Heebner and 4 feet deep to Rotary depths from the BKC to RTD. The Gamma Ray curve on this report has been shifted uphole accordingly to correlate with the Drilling time curve.

OH Log Formation Tops:
Base Anhydrite 2466 (+785), Topeka 3770 (-519), Heebner 4020 (-772), Lansing 4068 (-817), Stark Sh 4354 (-1103), BKC 4458 (-1207), Marmaton 4520 (-1269), Pawnee 4613 (-1359), Ft Scott 4658 (-1407), Cherokee 4679 (-1428), Morrow 4841 (-1590), Miss 4954 (-1703), LTD 5074 (-1923).

DSTs

ROCK TYPES

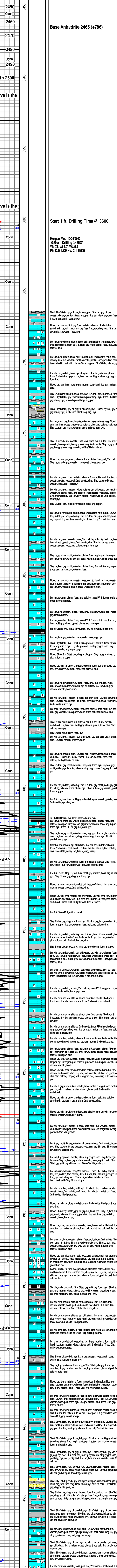
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|---|--|--|--|
|  Anhy |  Congl |  Lmst |  Black sh |
|  Brec |  Sdy dolo |  Mrst |  Gry sh |
|  Chlt |  Shy dolo |  Salt |  Shale |
|  Clyst |  Dol |  Shale |  Shy stst |
|  Coal |  Gyp |  Siltst |  Stysh |
| |  Sdy imst |  Ss | |

ACCESSORIES

- | | | | |
|------------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| <input type="checkbox"/> MINERAL | <input type="checkbox"/> Chlorite | <input type="checkbox"/> Pelec | <input type="checkbox"/> Grysh |
| <input type="checkbox"/> Anhy | <input type="checkbox"/> Dol | <input type="checkbox"/> Peloidal | <input type="checkbox"/> Gryslt |
| <input type="checkbox"/> Arg | <input type="checkbox"/> Sand | <input type="checkbox"/> Pisolite | <input type="checkbox"/> Lms |
| <input type="checkbox"/> Bent | <input type="checkbox"/> Silty | <input type="checkbox"/> Plant | <input type="checkbox"/> Sandylms |
| <input type="checkbox"/> Bit | | <input type="checkbox"/> Strom | <input type="checkbox"/> Sh |
| <input type="checkbox"/> Breccfrag | | <input type="checkbox"/> Fuss | <input type="checkbox"/> Siltstn |
| <input type="checkbox"/> Calc | <input type="checkbox"/> FOSSIL | <input type="checkbox"/> Oomoldic | |
| <input type="checkbox"/> Calc | <input type="checkbox"/> Algae | | |
| <input type="checkbox"/> Chtdk | <input type="checkbox"/> Amph | | |
| <input type="checkbox"/> Dol | <input type="checkbox"/> Belm | <input type="checkbox"/> STRINGER | <input type="checkbox"/> Boundst |
| <input type="checkbox"/> Dol | <input type="checkbox"/> Bioclst | <input type="checkbox"/> Anhy | <input type="checkbox"/> Chalky |
| <input type="checkbox"/> Ferrpel | <input type="checkbox"/> Brach | <input type="checkbox"/> Arg | <input type="checkbox"/> Cryxln |
| <input type="checkbox"/> Ferr | <input type="checkbox"/> Bryzoal | <input type="checkbox"/> Bent | <input type="checkbox"/> Earthy |
| <input type="checkbox"/> Glau | <input type="checkbox"/> Cephal | <input type="checkbox"/> Coal | <input type="checkbox"/> Flexln |
| <input type="checkbox"/> Gyp | <input type="checkbox"/> Coral | <input type="checkbox"/> Dol | <input type="checkbox"/> Grainst |
| <input type="checkbox"/> Marl | <input type="checkbox"/> Crin | <input type="checkbox"/> Gyp | <input type="checkbox"/> Lithogr |
| <input type="checkbox"/> Nodule | <input type="checkbox"/> Echin | <input type="checkbox"/> Ls | <input type="checkbox"/> Microxln |
| <input type="checkbox"/> Phos | <input type="checkbox"/> Fish | <input type="checkbox"/> Mrst | <input type="checkbox"/> Mudst |
| <input type="checkbox"/> Pyr | <input type="checkbox"/> Forum | <input type="checkbox"/> Siltstrg | <input type="checkbox"/> Packet |
| <input type="checkbox"/> Salt | <input type="checkbox"/> Fossil | <input type="checkbox"/> Sestrg | <input type="checkbox"/> Wackest |
| <input type="checkbox"/> Sandy | <input type="checkbox"/> Gastro | <input type="checkbox"/> Carbsh | |
| <input type="checkbox"/> Silt | <input type="checkbox"/> Oolite | <input type="checkbox"/> Clayn | |
| | <input type="checkbox"/> Ostra | <input type="checkbox"/> Dol | |

Curve Track 1

ROP (min/ft)
Gamma (API)



Remarks

Geologist on Location @ 10:00 pm 10/24/2013. Depth 3600'.

Bit Trip @ 3600'. Dev. 1 degree @ 3600'.
Bit torquing, WOB 18,000#
Increase WOB to 20,000#
Increase WOB to 25,000#
Increase WOB to 28,000#

Start 10 ft Wet & Dry Samples

Dev. 1 degree @ 3706'
WOB 30,000#

STW 96,000#
WOB 26,000#

Topeka 3766 (-515)
STW 94,000#
WOB 24,000#

Heebner 4020 (-769)
Dev 1 degree @ 3801'
WOB 28,000#

Dev 1 3/4 degree @ 3917'
Back off weight. WOB 20,000#

Morgan Mud 10/25/2013
1:20 pm Drilling @ 3914
Vis 55, WI 52, WI 64
Ph 11.5, LCM 4#, Chl 8,000

WOB 20,000#

Dev 3 degrees @ 4005'
Back off weight. WOB 10-12,000#

STW 100,000#
WOB 12,000#

Heebner 4020 (-769)

Toronto 4036 (-785)
Morgan Mud 10/26/2013
7:35 am Drilling @ 4032
Vis 55, WI 52, WI 64
Ph 11.5, LCM 3.5#, Chl 9,700

Survey @ 4052. Bit @ 4042. Dev 2 degrees.
WOB 12,000#

Lansing 4066 (-815)

Survey @ 4100. Bit @ 4084. Dev 2 1/2 degrees.
WOB 12,000#

Survey @ 4162. Bit @ 4162. Dev 3 degrees.
WOB 12,000#

Morgan Mud 10/27/2013
10:30 am Drilling @ 4207
Vis 55, WI 51, WI 6.5
Ph 11.5, LCM 6.0#, Chl 10,400

Survey @ 4208. Bit @ 4198. Dev 3 degrees.
WOB 12,000#

Note: ROP Scale Change @ 4230 ft.
New ROP is 0 to 40 min/ft.

Poor Samples

Survey @ 4280. Bit @ 4240. Dev 3 1/2 degrees.
WOB 10,000#

WOB 12,000#

Morgan Mud 10/28/2013
11:45 am Drilling @ 4302
Vis 55, WI 52, WI 6.5
Ph 11.5, LCM 6.0#, Chl 8,900

Survey @ 4320. Bit @ 4322. Dev 4 degrees.
WOB 14,000 to 16,000#

Survey @ 4440. Bit @ 4427. Dev 3 1/4 degrees.
WOB 14,000 to 16,000#

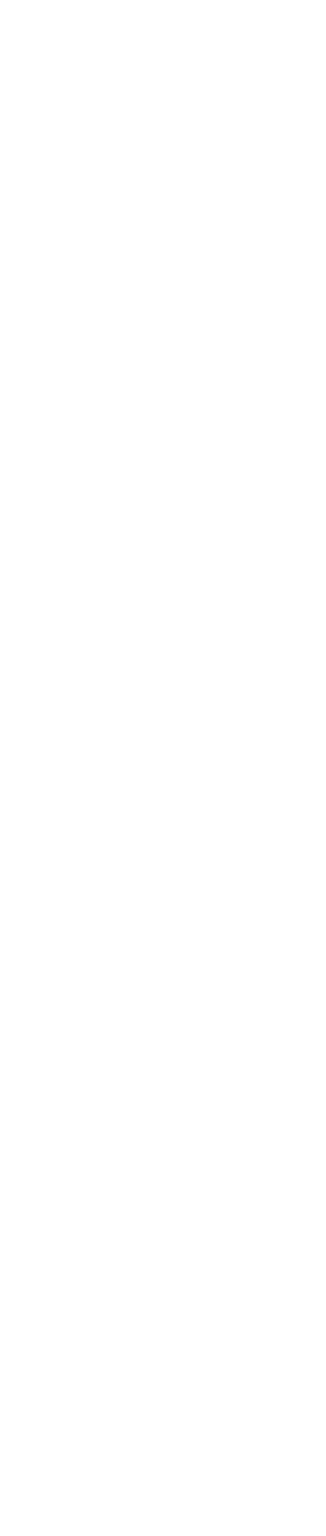
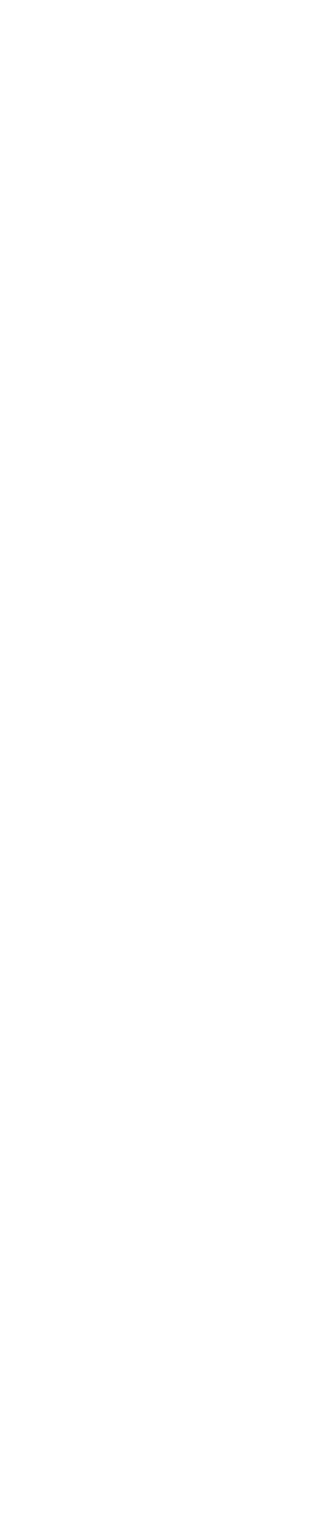
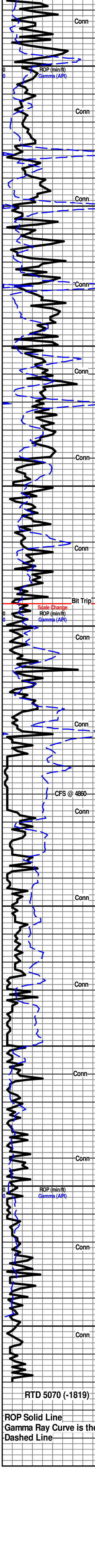
BKC 4454 (-1203)
Morgan Mud 10/29/2013
11:45 am Drilling @ 4452
Vis 55, WI 52, WI 6.5
Ph 11.5, LCM 6.0#, Chl 10,800

Survey @ Conn 4460. Dev 5 degrees.

Marmaton 4517 (-1266)

Survey @ Conn 4623. Dev 4 degrees.
WOB 4,000 to 16,000#

Survey @ 4830. Bit @ 4834. Dev 4 degrees.
WOB 14,000 to 16,000#



soft to hard. Ls, cm, tan, whestn, plstn, 2nd calc, ool, pel, foss, 2nd calcite dns. Ls, tan, brn, mdstn, dns.

Ls, cm, tan, plstn, gmstn, ool, pel, 2nd calcite, PP pos, spt inter gran por, soft. Ls, tan, brn, mdstn, whestn, plstn, tan-gry ool, pel & foss frag, 2nd calcite, micro pyr, dns. Sh, Ls, tan, brn, mdstn, whestn, plstn, foss, pel, foss, 2nd calcite, arg, pyr.

Flood Sh, blk, carb, pyr. Sh & Shy Sltstn, gry dk gry-bk, pyr. Shy Ls, dk gry whestn, foss, pel, arg, pyr. Ls, wh, tan, whestn, plstn, ool, pel, foss, 2nd calcite, dns.

Ls, wh, tan, mdstn, whestn, foss, trace PP por and spt inter gran por, soft. Ls, tan, brn, mdstn, whestn, plstn, tan-gry foss & pel fragments, 2nd calcite, arg in part, trace pyr.

Ls, wh, cm, mdstn, whestn, dk gry foss frag, trace pyr, spt chky test. Trace 1% white-bm likely dead oil str. Ls, wh, cm, tan, whestn, plstn, foss, pel, ool, trace PP por & spt inter gran por, 2nd calcite, trace blk likely dead oil str. Ls, tan, brn, mdstn, whestn, foss, pel, dns.

Sh & Shy Sltstn, dk gry-bk, calc, sl foss, pyr. Shy Ls, gry dk gry, whestn, plstn, foss, pel, arg, pyr.

Flood Ls, cm, tan, molt gry whestn, plstn, tan-gry foss & pel frag, 2nd calcite, pyr, soft-hard. Ls, cm, tan, dk gry, mdstn, dns. Ls, tan, dk brn, gry molt, mdstn, whestn, foss, 2nd calcite, dns. Shy Ls, dk gry whestn, foss, arg, dns. Trace Chl, dk gry trans, arg.

Sh, blk, carb, pyr. Sh & Shy Sltstn, dk gry-bk, sl foss, pyr.

Ls, brn, gry molt, whestn, plstn, dk gry foss, pel fragments, 2nd calcite, arg in part, trace pyr.

Ls, AA. Ls, wh, tan, mdstn, whestn, foss, spt chky test. Ls, cm, tan, whestn, plstn, foss, pel, 2nd calcite, soft-hard. Ls, tan, brn, mdstn, whestn, plstn, foss, pel, 2nd calcite, dns. Trace Chl, milky, gry foss, trans.

Ls, off, wh, molt fl gry, whestn, plstn, tan-gry foss & pel fragments, 2nd calcite, arg in part, pyr. Ls, tan, brn, plstn, foss, pel, 2nd calcite, dns.

Sh, blk, carb, pyr. Shy Sltstn, dk gry-bk, pyr.

Ls, brn, gry molt, whestn, plstn, tan-gry foss & pel fragments, 2nd calcite, dns.

Sh & Shy Sltstn, gry dk gry, blk, pyr. Shy Ls, dk gry, mdstn, sl foss, arg, micro pyr. Trace Shy Slt, gry dk gry, whestn, plstn, foss, pel, PP por, spt inter gran por, soft. Ls, tan, mdstn, whestn, foss, 2nd calcite, pyr.

Sh & Shy Sltstn, AA. Shy Ls, dk gry, mdstn, arg, pyr, dns. Ls, cm, tan, whestn, plstn, foss, pel, 2nd calcite, trace pyr. Ls, tan, brn, gry, mdstn, dns.

Flood Sh & Shy Sltstn, gry dk gry, blk, pyr. Sh, blk, carb, pyr. Shy Ls, brn, gry mdstn, whestn, sl foss, arg, micro pyr. Ls, cm, tan, whestn, plstn, sl foss, dns. Ls, tan, brn, gry, mdstn, dns.

Sh & Shy Sltstn, AA. Ls, tan, brn, mdstn, sl foss, dns. Ls, tan, brn, gry, whestn, plstn, clear 2nd calcite, filled por, dns. Ls, gry dk gry, mdstn, sl foss, dns.

Sh & Shy Sltstn, AA. Ls, wh, cm, mdstn, sl foss, trace pyr, soft-hard. Ls, tan, whestn, plstn, 2nd calcite, dns. Ls, cm, tan, brn, mdstn, whestn, plstn, foss, pel, 2nd calcite, arg, pyr. Trace Chl, tan, brn, plstn, foss, pel, 2nd calcite, dns. Trace Chl, milky, gry foss, trans, sharp.

Sh & Shy Sltstn, gry dk gry, pyr. Sh, blk, carb, pyr. Shy Ls, dk gry, mdstn, sl foss, arg.

Sh & Shy Sltstn, AA. Ls, tan, brn, gry, mdstn, tr micro pyr, dns. Ls, tan, brn, mdstn, whestn, foss & pel in part, soft. Ls, tan, brn, mdstn, dns. Trace Chl, tan, brn, trans, sharp.

Ls, tan, brn, molt gry, mdstn, whestn, foss in part, dns. Shy Ls, gry-brn molt, mdstn, sl foss, arg, tr micro pyr.

Morgan Mud 10/30/2013
12-45 pm Drilling @ 4600
Vis 46, WI 5.1, WL 8.4
Ph 10.5, LCM 6.0R, CHI 12.000

Survey @ 4605. Bit @ 4584. Dev 434 degrees.

Pawnee 4607 (-1356)

Survey @ 4700. Dev 4 degrees.
WOB 16,000 to 18,000#

Morgan Mud 10/31/2013
1:00 pm Drilling @ 4705
Vis 52, WI 5.1, WL 8.8
Ph 10.5, LCM 6.0R, CHI 12.000

FT Scott 4654 (-1403)

Survey @ 4655. Bit @ 4647. Dev 5 degrees.
WOB 14,000 to 16,000#

Survey @ 4700. Dev 4 degrees.
WOB 16,000 to 18,000#

Morgan Mud 10/31/2013
1:00 pm Drilling @ 4705
Vis 52, WI 5.1, WL 8.8
Ph 10.5, LCM 6.0R, CHI 12.000

Cherokee 4677 (-1426)

Survey @ 4772. Bit depth 4760. Dev 412 degrees.
WOB 16,000 to 18,000#

Morgan Mud 11/01/2013
12:00 pm TH well #4 @ 4791
Vis 61, WI 5.1, WL 8.0
Ph 10.5, LCM 6.0R, CHI 10.500

Bit Trip @ 4791 Dev 5 degrees.
Bit #4 PDC HITCOP 506F
ROP SCALE CHANGE @ 4792.
Now Scale is 1 to 20 minutes.

WOB 4,000#

Survey @ 4772. Bit depth 4760. Dev 412 degrees.
WOB 16,000 to 18,000#

Morgan Mud 11/01/2013
12:00 pm TH well #4 @ 4791
Vis 61, WI 5.1, WL 8.0
Ph 10.5, LCM 6.0R, CHI 10.500

Bit Trip @ 4791 Dev 5 degrees.
Bit #4 PDC HITCOP 506F
ROP SCALE CHANGE @ 4792.
Now Scale is 1 to 20 minutes.

WOB 4,000# to 5,000#

Survey @ 4860. Dev 414 degrees.
WOB 4,000# to 5,000#

Morrow 4838 (-1587)

Survey @ 4960. Dev 414 degrees.
WOB 4,000# to 5,000#

Miss 4956 (-1705)

Shy Ls, dk gry, mdstn, whestn, sl foss, arg, micro pyr. Ls, cm, tan, whestn, plstn, foss, pel, 2nd calcite, trace pyr. Ls, tan, brn, mdstn, whestn, plstn, foss, pel, 2nd calcite, dns. Trace Chl, tan, brn, plstn, foss, pel, 2nd calcite, dns. Trace Chl, milky, gry foss, trans, sharp.

Sh & Shy Sltstn, gry dk gry, pyr. Sh, blk, carb, pyr. Shy Ls, dk gry, mdstn, sl foss, arg.

Sh & Shy Sltstn, AA. Ls, tan, brn, gry, mdstn, tr micro pyr, dns. Ls, tan, brn, mdstn, whestn, foss & pel in part, soft. Ls, tan, brn, mdstn, dns. Trace Chl, tan, brn, trans, sharp.

Ls, tan, brn, molt gry, mdstn, whestn, foss in part, dns. Shy Ls, gry-brn molt, mdstn, sl foss, arg, tr micro pyr.

Flood sh, blk, carb, pyr. Sh, dk gry-bk, pyr.

Sh & Shy Sltstn, AA. Shy Ls, gry dk gry, foss, arg, tr micro pyr. Ls, tan, dk brn, molt gry, mdstn, dns.

Sh & Shy Sltstn, AA. Ls, cm, tan, mdstn, whestn, foss, spt chky test in part. Ls, tan, gry, brn, mdstn, sl foss, 2nd calcite, dns. Trace Chl, tan, milky, brn, trans, arg, sharp.

Poor Sample. Sh & Shy Sltstn, AA. Ls, tan, gry, brn, mdstn, sl foss, dns. Abndnt Shy Sltstn, rd-brn, gry.

Ls, off, wh, mdstn, sl foss, soft. Ls, cm, tan, whestn, plstn, 2nd calcite, tr por. Ls, tan, brn, gry, mdstn, dns. Shy Ls, gry-dk gry, whestn, foss, arg, tr pyr.

Sh & Shy Ls, gry dk gry, sl foss, pyr. Ls, wh, tan, mdstn, sl foss, soft. Ls, tan, brn, gry, mdstn, dns. Shy Ls, dk gry, whestn, plstn, foss, pel, 2nd calcite, trace pyr. Ls, cm, tan, whestn, plstn, foss, pel, 2nd calcite, dns. Trace Chl, tan, brn, plstn, foss, pel, 2nd calcite, dns. Trace Chl, milky, gry foss, trans, sharp.

Sh & Shy Sltstn, gry dk gry, blk, pyr. Shy Ls, dk gry, mdstn, sl foss, arg, micro pyr. Trace Shy Slt, gry dk gry, whestn, plstn, foss, pel, PP por, spt inter gran por, soft. Ls, tan, mdstn, whestn, foss, 2nd calcite, pyr.

Shy Ls, off, wh, molt gry-dk gry, whestn, plstn, tan-gry foss & pel fragments, 2nd calcite, arg in part, pyr. Ls, tan, brn, plstn, foss, pel, 2nd calcite, dns.

Shy Ls, off, wh, molt gry-dk gry, whestn, plstn, tan-gry foss & pel fragments, 2nd calcite, arg in part, pyr. Ls, tan, brn, plstn, foss, pel, 2nd calcite, dns.

Shy Ls, AA. Sh & Shy Sltstn, gry, gm, dk gry, blk, aren in part, vfn qtz gr, pyr. Trace Shy Slt, gry vfn qtz gr, arg, pyr, friable. Trace Shy Slt, gry vfn-in qtz gr, sub rd-sub arg, poorly sorted, dk gry sh clast, arg, pyr.

Flood Shy Sh, gry, gm, dk gry, blk spks carb plant fragments, micro pyr, soft, gummy. Shy Sh, gry dk gry, blk carb plant frag, mica micro pyr, soft. Sh, blk, carb, micro pyr. Tr Shy Sh, gry, vfn qtz gr, blk carb spks, micro pyr, soft.

Shy Sh, dk gry, gm, mica, blk spks carb plant fragments, micro pyr, trace vfn qtz gr, soft, gummy. Shy Sh, gry dk gry, blk carb plant frag, micro pyr, soft. Sh, blk, carb, micro pyr.

Sh, dk gry, gm, mica, blk spks carb plant fragments, micro pyr, trace vfn qtz gr, soft, gummy.

Sh & Shy Sltstn, gry gm, dk gry, blk carb spks, micro pyr. Shy Ls, off, wh, gry dk gry, molt, whestn, dk gry, 2nd calcite, arg, pyr. Trace Chl, dk gry-bk, trans, sharp.

Sh, dk gry, gm, micro pyr. Shy Sltstn, gry dk gry, mica, blk spks carb plant fragments, micro pyr, trace vfn qtz gr, soft, gummy.

Shy Ls, gry dk gry, whestn, foss, 2nd calcite, arg, pyr. Trace Chl, dk gry-bk, trans, sharp.

Sh & Shy Sltstn, gry gry, dk gry, blk, mica, blk carb spks, pyr. Sh, gry-gm, wavy micro pyr. Trace Shy Slt, gry dk gry, vfn qtz gr, dk gry-bk spks, arg, pyr. Shy Ls, tan, gry dk gry, whestn, foss, arg, pyr.

Sh & Shy Sh, gry-gm, dk gry, mica, blk carb plant fragments, micro pyr, soft. Shy Ls, gry dk gry, whestn, foss, arg, pyr.

Sh & Shy Sh, gry-gm, dk gry, mica, blk carb plant fragments, trace pyr, foss, pyr. Shy Ls, gry dk gry, whestn, foss, arg, pyr.

Sh & Shy Sh, gry-gm, dk gry, mica, blk carb plant fragments, trace pyr, foss, pyr. Shy Sltstn, gry, mica, blk spks, soft, gummy. Shy Ls, gry dk gry, whestn, foss, arg, pyr.

Sh & Shy Sh AA. Shy Ls, AA. Trace Shy Slt, dk gry, calc, vfn-in qtz gr, sub rd-sub arg, blk carb spks, arg, pyr.

Sh & Shy Sh AA. Shy Ls, AA. Trace Shy Slt, dk gry, calc, vfn-in qtz gr, sub rd-sub arg, blk carb spks, arg, pyr.

Sh & Shy Sltstn, gry gm, dk gry, blk, blk carb spks, micro pyr, aren in part, vfn qtz gr. New trace 5d, calc, vfn gr, tr dk gry sh clast, semi friable. Shy Slt, gry vfn qtz gr, blk spks, micro pyr, arg, soft.

Sh & Shy Sltstn, AA. Trace Shy Slt, AA. New (5% of sample) Ls, cm, tan, whestn, ool, soft chky test. Ls, tan, plstn, fn ool, foss, aren, vfn qtz gr.

Sh & Shy Sltstn, AA. New (10% of sample) Ls, cm, tan, whestn, fn ool, soft chky test. Ls, cm, tan, whestn, fn ool, dns. Shy Ls, wh, plstn, vfn qtz gr, trace ool, soft spt chky test.

Flood (60% of sample) Shy Ls, wh, cm, tan, plstn, vfn clear sub rdd, sub ang qtz gr, few frag with trace fn ool, ppt, spt chky test. Soft-hard.

Shy Ls, wh, cm, tan, plstn, vfn clear sub rdd, sub ang, qtz gr, trace fn ool, ppt, spt chky test. Soft-hard. Shy Ls, wh, cm, tan, plstn, vfn clear sub rdd, sub ang, qtz gr, dk gry-bk spks, arg, pyr.

Shy Ls, wh, cm, tan, plstn, vfn clear sub rdd, sub ang, qtz gr, trace fn ool, ppt, spt chky test. Trace Chl, yell, org, trans, sharp.

Shy Ls, wh, cm, plstn, vfn (trace med) clear sub rdd, sub ang, qtz gr, trace fn ool, ppt, spt chky test, soft to hard.

Shy Ls, wh, cm, plstn, vfn (trace med) clear sub rdd, sub ang, qtz gr, sl ool in part, ppt, spt chky test.

Flood Ls, wh, cm, whestn, plstn, fn ool, aren in part, vfn-in clear sub rdd qtz gr, soft chky test.

Flood Ls, wh, cm, mdstn, chky test. Ls, wh, tan, whestn, sl foss & ool, soft to hard.

Survey @ RTD 5070. Dev 312 degrees.