

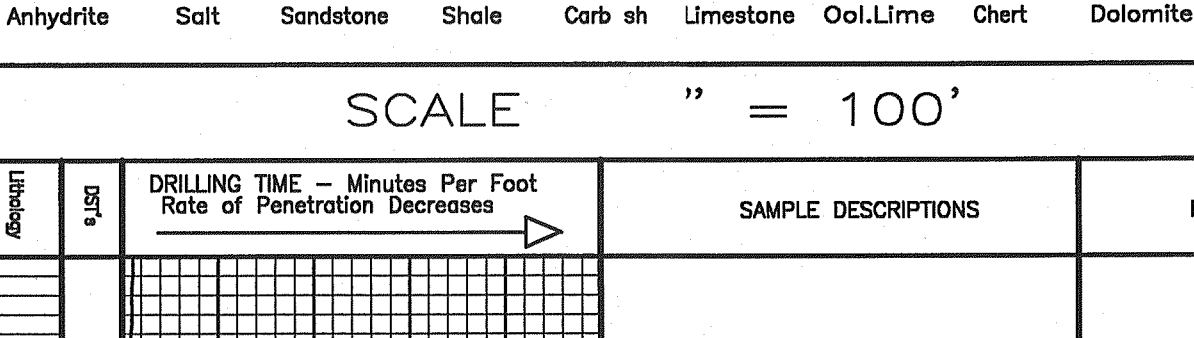
GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

<p>COMPANY Range Oil Co., Inc.</p> <p>LEASE #1 Madden "A" Unit</p> <p>FIELD Panther Ranch SW</p> <p>LOCATION 330' EML + 2190' EML, NW/4</p> <p>SEC 31 TWP 19 S RCF 6 E</p> <p>COUNTY El Paso STATE KS</p> <p>CONTRACTOR E + G Drilling, Inc</p> <p>SPUD 10-8-14 COMP 10-14-14</p> <p>RTD 2315' LTD 2313'</p> <p>MUD UP 1580' TYPE MUD Clem</p> <p>SAMPLES SAVED FROM 1570 TO RTD</p> <p>DRILLING TIME KEPT FROM 1570 TO RTD</p> <p>SAMPLES EXAMINED FROM 1590 TO RTD</p> <p>GEOLOGICAL SUPERVISION FROM 1580 TO RTD</p> <p>GEOLOGIST ON WELL Ken Wallace</p>	<p>ELEVATIONS</p> <p>KB 1458'</p> <p>DF 1452'</p> <p>GL 1452'</p> <p>Measurements Are All From KB</p> <p>PRODUCTION TEST @ 2313' w/ 2 1/2" casing</p> <p>PRODUCTION TEST @ 2313' w/ 2 1/2" casing</p> <p>PRODUCTION TEST @ 2313' w/ 2 1/2" casing</p> <p>PRODUCTION TEST @ 2313' w/ 2 1/2" casing</p>
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<p>REMARKS Production casing set to further evaluate Viola.</p> <p style="text-align: center;">Ken Wallace</p>	<p>10-8-14 MIRT of spud</p> <p>10-9-14 7am, PTD 221' Making repairs, 1/4" @ 221'</p> <p>10-10-14 7:45am Drig. @ 1661' Bit Trip @ 1570'</p> <p>10-11-14 7:30am Drig. @ 1978'</p> <p>10-12-14 8am PTD 2192', Prep for DST #2</p> <p>10-13-14 8:45am RTD 2315' Ran E Logs</p> <p>10-14-14 set 5 1/2" casing @ 2312' TD @ 1pm 10/13/14</p>
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LEGEND

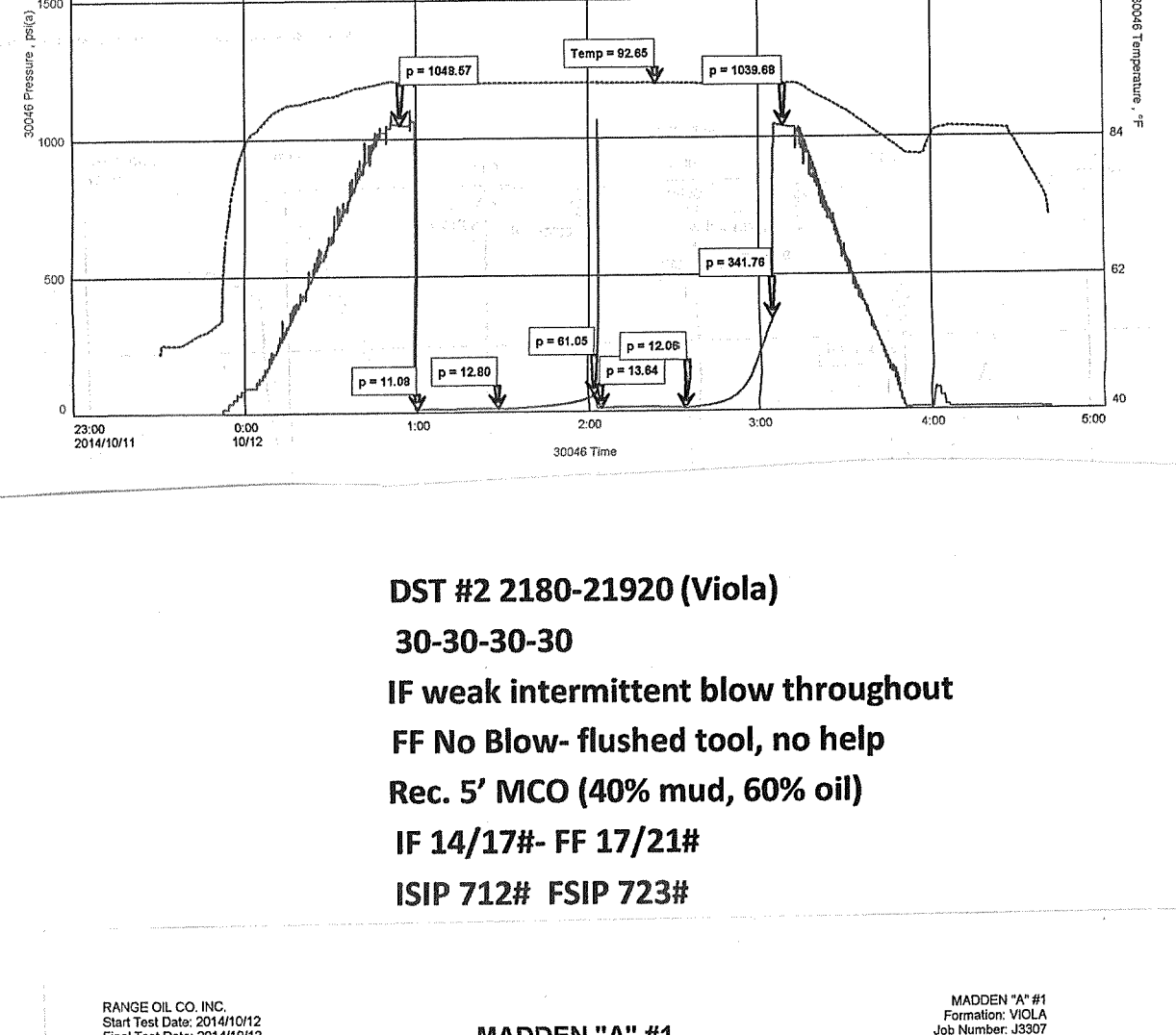


SCALE " = 100'

DEPTH	CORRECTION	DRILLING TIME - Minutes Per Foot Rate of Penetration Decreases	SAMPLE DESCRIPTIONS	REMARKS
1500'				
20				
40				
60				
80			sh, gy, slty	Bit Trip @ 1570'
1600'				Lansing 1604 (-146)
20			Ls, brn, fxl, dse, NS	
40			sh, gy, grn, red	
60			Ls, wh, slal, foss, NS	
80			AA, cky, NS	
100			Ls, lt gy, gy cots, cky, NS	
120			sh, gy	
140			Ls, tan-buff, vol, gy cots, foss, dty, NS	
160			Ls, tan, fxl, col int, foss, NS	
180			sh, gy; ss, Hgy, vfg, NS	
200			Ls, tan, ool, foss, fxl in pt, NS	
220			Ls, tan-buff, sl ool, foss, dty, NS	
240			Ls, mg, col, foss, dty	
260			AA w/ dkgy, dse, ls; dty	
280			ls, dk gy, argl, NS	
300			sh, dk gy, smgrn, red	
320			Ls, tan, fxl, slal, foss, cky, NS	
340			Ls, tan, fxl, dse, cky, NS	
360			AA, sl dty	
380			sh, gy	
400			Ls, mg, fxl, cky, NS	
420			Ls, tan - lt brn, fxl, dty, NS	
440			sh, bl, grn	
460			Ls, tan, fxl, dse, dty, NS	
480			ls, wh - lt gy, slal, foss, NS	
500			Ls, buff, fxl, cky, NS	
520			AA	
540			Ls, buff-wh, sl ool, foss, dty, sl dty	Stark Sh 1893 (-435)
560			sh, bl	
580			Ls, wh, fxl, ppt, dty, NS	
600			Ls, lt tan - lt gy, sl ool, fxl, foss, NS	
620			sh, bl	
640			Ls, lt gy - tan, foss, fxl, xln, d, NS	R/KC 1947 (-489)
660			Ls, tan, fxl, cky, NS	
680			sh, gy, grn, sm red, sm grn/bl lamin	
700			ss, gy, fgd, hard, argl, NS	
720			sh, gy, grn, pyr	
740			Ls, dk gy, fxl, argl, cky, NS	
760			sh, gy	
780			Ls, buff ool, sl foss, cky, NS	
800			sh, gy, grn, red, brn	
820			ss, lt grn, vfg, soft, NS	
840			sh, gy, grn, brn	
860			Ls, buff, fxl, foss, sl ool, cky, NS	
880			sh, gy	
900			Ls, gy, granit, foss, NS	
920			sh, gy, smgrn	
940			Ls, dk brn, fxl, foss, NS	
960			sh, gy, red/brn	
980			Ls, brn, mxln, ool, foss, NS	
1000			sh, bl	
1020			Ls, tan, ool, foss, NS	cherokee sh 2110 (-652)
1040			sh, bl	Short Trip @ 2112'
1060			sh, lt grn, gy, red	Congl Sd 2128 (-670)
1080			ss, wh-cl, mgal, well red, p sorted, NS	
1100			sh, vc (red, gy, grn, brn)	
1120			AA	Viola 2171 (-713)
1140			Dol, tan-ltgy, dty, set stn, (20%), SFO, gd odor, NFL	
1160			2774' 15" Dol, lt tan, ppt, 10% ss, 10% scatt stn, tr FL, odor, sl dty w/ tan fxl in pt	
1180			30" AA with ltgy m-c xln Dol, SFO, scatt stn (10%), tr FL	
1200			2180' 15" Dol, tan, sm lt gy, vfg, ppt, stn (25%), SFO, odor, tr FL	
1220			2192' 15" Dol, ltgy, smgrn, fgd, vfg, gd odor, SFO, 60% stn, sm sat ACS	
1240			2202' 15" Dol, wh, sm tan, fxl, NS, SFO, odor, NFL, dty	
1260			Dol, tan, ppt, tr sh (10%) on Dol, SFO, tr FL, odor, dty w/ ppt, stn, SFO on tan fxl (10%) of d	Simpson Sd 2256 (-798)
1280			Dol, buff, NFL, NS, tr odor, NFL, dty	
1300			Dol, lt brn-tan, sm red, brn, dse, vfg, NFL, odor	
1320			ss, milky, cgd, p sorted, rd, gd odor, NFL (10%)	Mid Smp Sd 2278 (-820)
1340			650' odor, NFL	
1360			2277' 15" AA, gr sh, grn, gy, sm fgd, grn glauc, ss, NS	
1380			2288' 15" ss, ltgy, fgd, well sorted, rd, glance, NS, odor, NFL	
1400			30" AA of much vc sh	Lower Smp Sd 2310 (-852)
1420			sh, vc (gy, grn, red), pyr	
1440			ss, clear, mostly loose grns, near sorted, well rd, NS, NFL, odor	RTD @ 2315'

DST #1 2172-2180 (Viola)

30-30-30-30
IF weak blow dead in 1 min.
FF No Blow- flushed tool, no help
Rec. 2 MCO (10% mud, 90% oil)
IF 11/13#- FF 12/12#
ISIP 61# FSIP 342#



DST #2 2180-21920 (Viola)

30-30-30-30
IF weak intermittent blow throughout
FF No Blow- flushed tool, no help
Rec. 5' MCO (40% mud, 60% oil)
IF 14/17#- FF 17/21#
ISIP 712# FSIP 723#

