

Pressure Test Report

COMPANY INFORMATION

Company Name HILCORP
 Representative PRISCILLA SHORTY
 Phone
 Fax
 Address

NMOC

MAY 31 2013

DISTRICT III

E-Mail Address
 Service Company EXPERT DOWNHOLE SERVICES, INC.

WELL INFORMATION

Well Name SAN JUAN 31-6 #231 POW
 Well Location T31N, R6W, SEC 27
 Field and Pool FRUITLAND COAL
 Status (Oil, Gas, Water, Injection) OBSERVATION
 Perforated Intervals 3176-3326
 Mid-point of Perforated Intervals (MPP)
 Drilling Rig Number
 Elevations
 Kelly Bushing (KB)
 Casing Flange (CF)
 KB-CF
 Ground Level 6448
 Plug Back Total Depth 3327
 Total Depth 3327
 Production Casing 5 1/2 TO 3327
 Production Tubing 2 3/8 TO 3264

TEST INFORMATION

Type of Test POOH STATIC GRADIENT
 Date(s) of Test 5/23/19
 Dead-weight Gauge Tubing Pressure 0
 Dead-weight Gauge Casing Pressure
 Shut-in Date (Duration)
 Date / Time on Bottom 5/23/19 @0927
 Date / Time off Bottom 5/23/19 @1027
 Probe Serial Number W1162
 Probe Offset from End of Tool String 0-6000
 Run Depth at Probe Pressure Port 3308

PRESSURE TEST RESULTS

Maximum Recorded Probe Pressure 790.8 psig
 Maximum Recorded Probe Temperature 117.6 deg F
 Final Buildup Pressure
 Gradient Survey Information
 Extrapolated Pressure to MPP
 Final Gradient at Depth
 Job Number

Company Name HILCORP
Well Name SAN JUAN 31-6 #231 POW
Type of Test POOH STATIC GRADIENT
Date(s) of Test 5/23/19



PROBE INFORMATION

Probe Serial Number W1162
Model
Pressure
 Calibrated Pressure Range
 Accuracy
 Resolution
Temperature
 Calibrated Temperature Range
 Accuracy
 Resolution
Calibration File Used for Reports

PROGRAMMING DETAILS

<u>Step</u>	<u>Sample Mode</u>	<u>Period</u>	<u>Duration</u>	<u>Comment</u>
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Program Start Time
Program End Time
Total Samples Taken
Usage for this Test
Generic Data File Name

Company Name	HILCORP
Well Name	SAN JUAN 31-6 #231 POW
Type of Test	POOH STATIC GRADIENT
Date(s) of Test	5/23/19



COMMENTS

Reported By

EXPERT DOWNHOLE SERVICES, INC

RIH WITH 1.50 IMPRESSION BLOCK AND TAGGED FILL @3311 WLM. RIH WITH BHP GAUGE TO 3308 WLM FOR 1 HOUR, THEN POOH MAKING 5 MINUTE STOPS PER REQUEST.

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Pressure vs. Depth

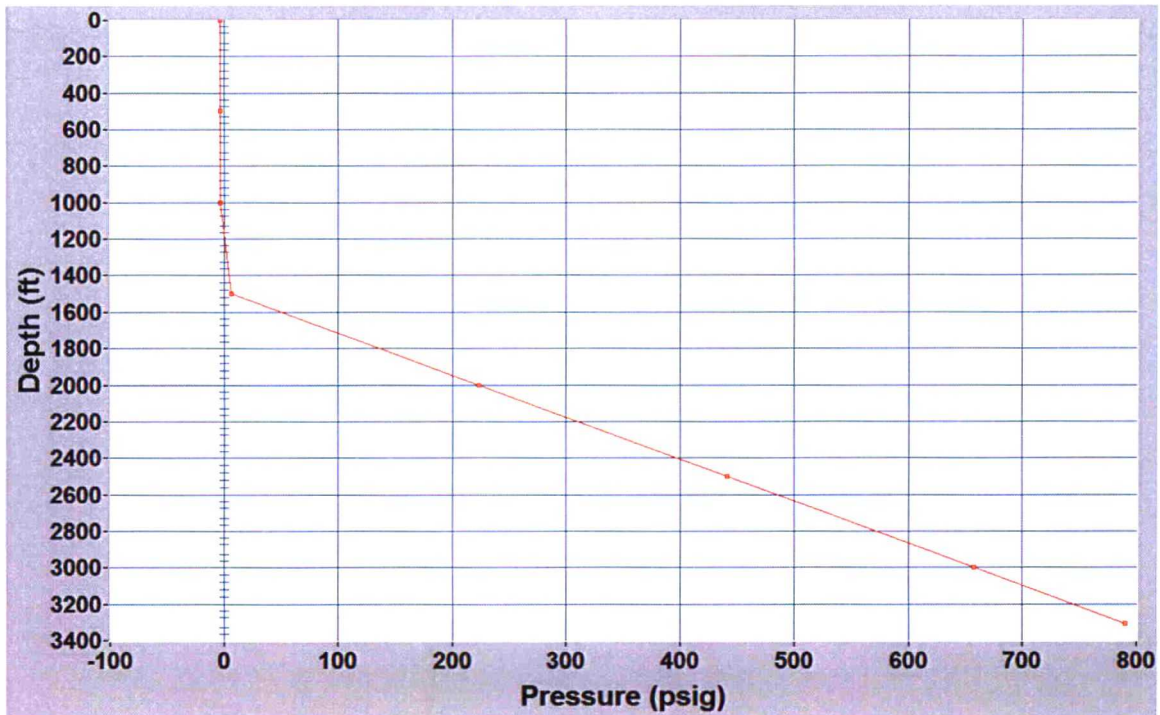
Probe Serial Number W1162

		(ft)	(psig)	(psi/ft)	(deg F)	(deg F/ft)
0927	1027	3308.000	790.414	-	113.486	-
1028	1033	3000.000	657.681	0.4310	109.724	0.0122
1035	1040	2500.000	441.453	0.4325	98.762	0.0219
1041	1046	2000.000	223.671	0.4356	88.466	0.0206
1047	1052	1500.000	6.833	0.4337	80.006	0.0169
1053	1058	1000.000	-2.878	0.0194	76.316	0.0074
1100	1105	500.000	-3.049	0.0003	74.390	0.0039
1106	1111	0.000	-3.194	0.0003	70.790	0.0072

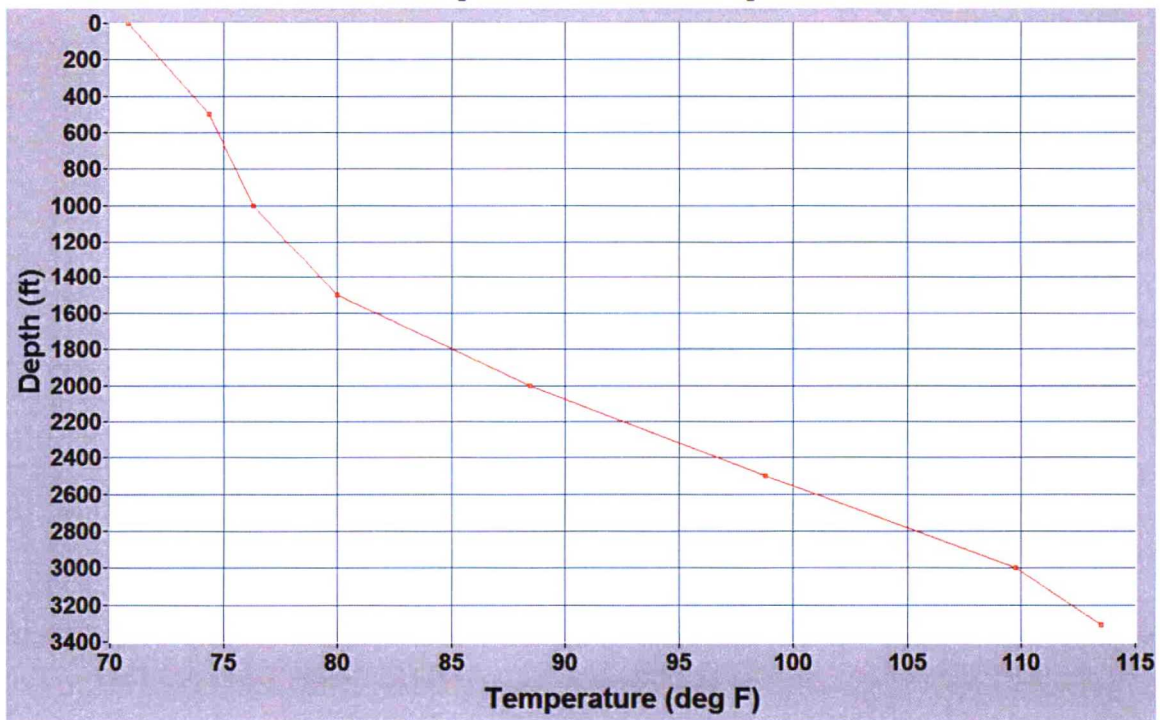
Extrapolated to MPP:

(ft)	(psig)	(deg F)
0.000		

W1162 Depth vs. Pressure



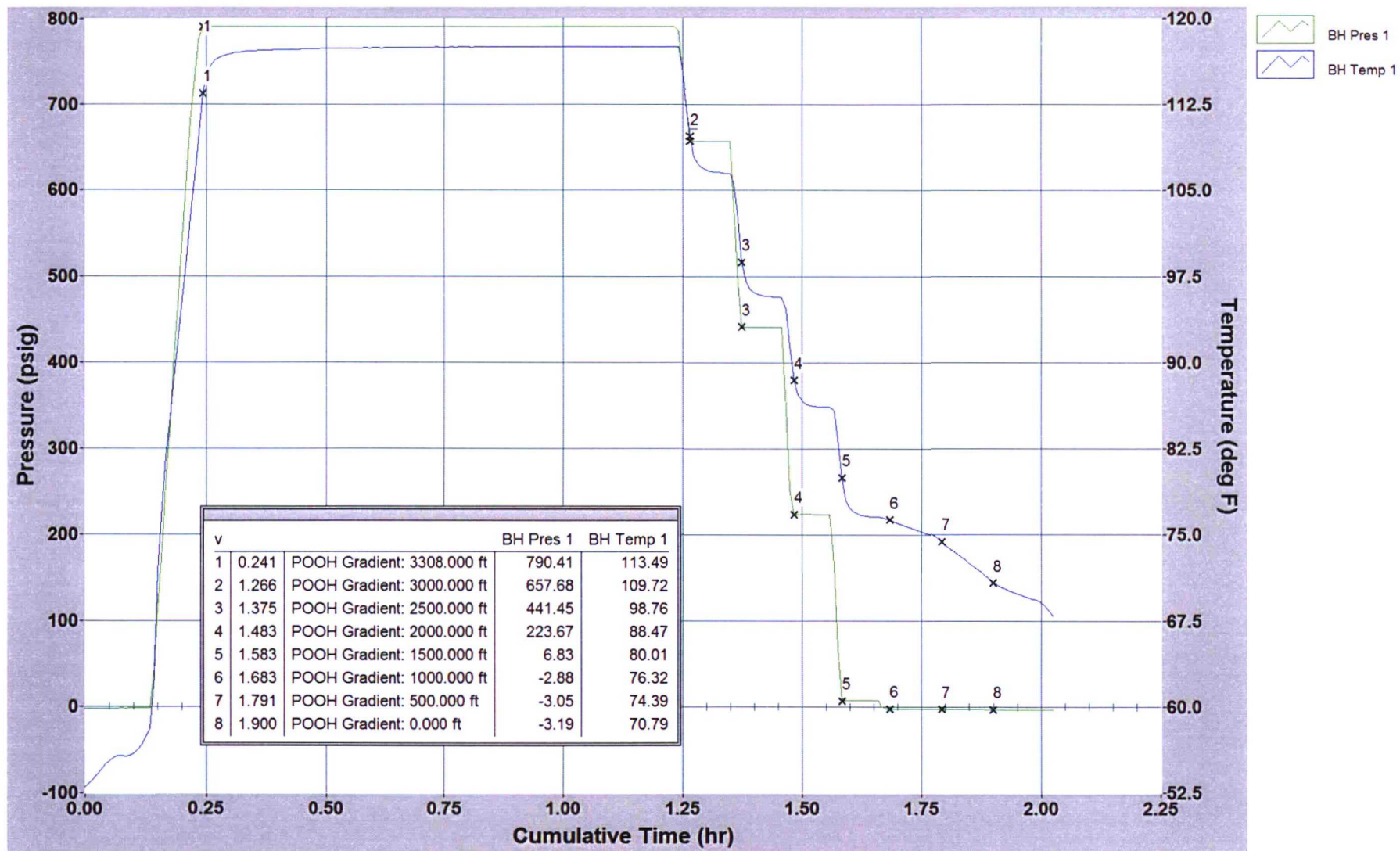
W1162 Depth vs. Temperature



Company Name HILCORP
 Well Name SAN JUAN 31-6 #231 POW
 Type of Test POOH STATIC GRADIENT
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SAN JUAN 31-6 #231 POW



Date	Time	Cum.Time BH1	BH Pres 1	BH Temp 1
		hr	psig	deg F
2019/05/23	09:12:45	0.0000	-2.290	53.006
2019/05/23	09:13:14	0.0081	-2.316	53.330
2019/05/23	09:14:14	0.0247	-2.319	54.104
2019/05/23	09:15:14	0.0414	-2.344	54.932
2019/05/23	09:16:14	0.0581	-2.294	55.508
2019/05/23	09:17:14	0.0747	-2.281	55.688
2019/05/23	09:18:14	0.0914	-2.277	55.706
2019/05/23	09:19:14	0.1081	-2.125	56.192
2019/05/23	09:20:14	0.1247	-2.020	57.290
2019/05/23	09:20:44	0.1331	-1.964	58.118
2019/05/23	09:21:44	0.1497	114.396	71.816
2019/05/23	09:22:44	0.1664	257.593	81.788
2019/05/23	09:23:44	0.1831	405.597	88.700
2019/05/23	09:24:44	0.1997	546.089	95.504
2019/05/23	09:25:44	0.2164	680.516	102.560
2019/05/23	09:26:44	0.2331	775.668	109.346
POOH Gradient: 3308.000 ft				
2019/05/23	09:27:14	0.2414	790.414	113.486
2019/05/23	09:27:44	0.2497	790.438	115.160
2019/05/23	09:28:14	0.2581	790.688	115.916
2019/05/23	09:29:14	0.2747	790.718	116.582
2019/05/23	09:30:14	0.2914	790.779	116.852
2019/05/23	09:31:14	0.3081	790.759	117.014
2019/05/23	09:32:14	0.3247	790.753	117.104
2019/05/23	09:33:14	0.3414	790.785	117.158
2019/05/23	09:34:14	0.3581	790.773	117.212
2019/05/23	09:35:14	0.3747	790.769	117.230
2019/05/23	09:36:14	0.3914	790.768	117.266
2019/05/23	09:37:14	0.4081	790.763	117.266
2019/05/23	09:38:14	0.4247	790.750	117.302
2019/05/23	09:39:14	0.4414	790.727	117.320
2019/05/23	09:40:14	0.4581	790.741	117.338
2019/05/23	09:41:14	0.4747	790.718	117.374
2019/05/23	09:42:14	0.4914	790.740	117.392
2019/05/23	09:43:14	0.5081	790.704	117.410
2019/05/23	09:43:44	0.5164	790.712	117.410
2019/05/23	09:44:44	0.5331	790.717	117.428
2019/05/23	09:45:44	0.5497	790.714	117.428
2019/05/23	09:46:44	0.5664	790.699	117.446
2019/05/23	09:47:44	0.5831	790.717	117.464
2019/05/23	09:48:44	0.5997	790.708	117.464
2019/05/23	09:49:44	0.6164	790.702	117.446
2019/05/23	09:50:44	0.6331	790.698	117.464
2019/05/23	09:51:14	0.6414	790.695	117.464
2019/05/23	09:52:14	0.6581	790.663	117.482
2019/05/23	09:53:14	0.6747	790.708	117.482
2019/05/23	09:54:14	0.6914	790.714	117.500
2019/05/23	09:55:14	0.7081	790.682	117.500
2019/05/23	09:56:14	0.7247	790.695	117.500
2019/05/23	09:57:14	0.7414	790.662	117.500
2019/05/23	09:58:14	0.7581	790.683	117.500
2019/05/23	09:58:44	0.7664	790.667	117.518
2019/05/23	09:59:44	0.7831	790.672	117.518
2019/05/23	10:00:44	0.7997	790.678	117.518

Date	Time	Cum.Time BH1	BH Pres 1	BH Temp 1
		hr	psig	deg F
2019/05/23	10:01:44	0.8164	790.675	117.518
2019/05/23	10:02:44	0.8331	790.683	117.518
2019/05/23	10:03:44	0.8497	790.656	117.518
2019/05/23	10:04:44	0.8664	790.672	117.518
2019/05/23	10:05:44	0.8831	790.653	117.536
2019/05/23	10:06:44	0.8997	790.667	117.536
2019/05/23	10:07:44	0.9164	790.691	117.518
2019/05/23	10:08:44	0.9331	790.656	117.536
2019/05/23	10:09:44	0.9497	790.664	117.554
2019/05/23	10:10:44	0.9664	790.662	117.536
2019/05/23	10:11:44	0.9831	790.651	117.536
2019/05/23	10:12:44	0.9997	790.659	117.536
2019/05/23	10:13:44	1.0164	790.641	117.536
2019/05/23	10:14:14	1.0247	790.660	117.536
2019/05/23	10:15:14	1.0414	790.631	117.536
2019/05/23	10:16:14	1.0581	790.608	117.536
2019/05/23	10:17:14	1.0747	790.659	117.554
2019/05/23	10:18:14	1.0914	790.630	117.536
2019/05/23	10:19:14	1.1081	790.663	117.554
2019/05/23	10:20:14	1.1247	790.644	117.554
2019/05/23	10:21:14	1.1414	790.670	117.554
2019/05/23	10:21:44	1.1497	790.644	117.536
2019/05/23	10:22:44	1.1664	790.621	117.554
2019/05/23	10:23:44	1.1831	790.611	117.554
2019/05/23	10:24:44	1.1997	790.617	117.554
2019/05/23	10:25:44	1.2164	790.644	117.554
2019/05/23	10:26:44	1.2331	790.634	117.554
2019/05/23	10:27:44	1.2497	743.646	115.790
POOH Gradient: 3000.000 ft				
2019/05/23	10:28:44	1.2664	657.681	109.724
2019/05/23	10:29:14	1.2747	657.446	107.942
2019/05/23	10:30:14	1.2914	657.552	106.970
2019/05/23	10:31:14	1.3081	657.487	106.682
2019/05/23	10:32:14	1.3247	657.502	106.574
2019/05/23	10:33:14	1.3414	657.466	106.502
2019/05/23	10:34:14	1.3581	582.209	105.674
POOH Gradient: 2500.000 ft				
2019/05/23	10:35:14	1.3747	441.453	98.762
2019/05/23	10:36:14	1.3914	441.218	96.440
2019/05/23	10:37:14	1.4081	441.160	95.954
2019/05/23	10:38:14	1.4247	441.096	95.792
2019/05/23	10:39:14	1.4414	441.125	95.720
2019/05/23	10:40:14	1.4581	440.616	95.684
2019/05/23	10:41:14	1.4747	253.601	91.526
POOH Gradient: 2000.000 ft				
2019/05/23	10:41:44	1.4831	223.671	88.466
2019/05/23	10:42:14	1.4914	224.099	87.260
2019/05/23	10:43:14	1.5081	224.312	86.432
2019/05/23	10:44:14	1.5247	224.157	86.234
2019/05/23	10:44:44	1.5331	224.159	86.180
2019/05/23	10:45:44	1.5497	224.146	86.144
2019/05/23	10:46:44	1.5664	166.273	85.820
POOH Gradient: 1500.000 ft				
2019/05/23	10:47:44	1.5831	6.833	80.006

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Date	Time	Cum.Time BH1	BH Pres 1	BH Temp 1
		hr	psig	deg F
2019/05/23	10:48:44	1.5997	7.527	77.360
2019/05/23	10:49:44	1.6164	7.029	76.838
2019/05/23	10:50:44	1.6331	7.104	76.658
2019/05/23	10:51:44	1.6497	7.056	76.586
2019/05/23	10:52:44	1.6664	-0.258	76.550
POOH Gradient: 1000.000 ft				
2019/05/23	10:53:44	1.6831	-2.878	76.316
2019/05/23	10:54:44	1.6997	-2.923	76.010
2019/05/23	10:55:44	1.7164	-2.902	75.776
2019/05/23	10:56:44	1.7331	-2.920	75.524
2019/05/23	10:57:44	1.7497	-2.892	75.272
2019/05/23	10:58:44	1.7664	-2.901	75.056
2019/05/23	10:59:44	1.7831	-3.017	74.678
POOH Gradient: 500.000 ft				
2019/05/23	11:00:14	1.7914	-3.049	74.390
2019/05/23	11:01:14	1.8081	-3.066	73.832
2019/05/23	11:02:14	1.8247	-3.050	73.292
2019/05/23	11:03:14	1.8414	-3.065	72.788
2019/05/23	11:04:14	1.8581	-3.068	72.266
2019/05/23	11:05:14	1.8747	-3.102	71.780
2019/05/23	11:06:14	1.8914	-3.171	71.096
POOH Gradient: 0.000 ft				
2019/05/23	11:06:44	1.8997	-3.194	70.790
2019/05/23	11:07:14	1.9081	-3.189	70.592
2019/05/23	11:08:14	1.9247	-3.166	70.304
2019/05/23	11:09:14	1.9414	-3.168	70.016
2019/05/23	11:10:14	1.9581	-3.168	69.764
2019/05/23	11:11:14	1.9747	-3.155	69.512
2019/05/23	11:12:14	1.9914	-3.191	69.278
2019/05/23	11:13:14	2.0081	-3.176	68.792