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BAKER HUGHES

Baker Atlas

NORWARD

ENERGY SERVICES

Customer: Chevron Canada Resources
Wellname: Chevron et al Fort Liard
Well Location: K - 29
Test Dates: Apr. 03 - 19, 1999
Formation: Nahanni

File Name: GP99-048, CHEV365.FLD
Supervisors: R. Rutherford, M. Russell
Customer Reps: G. McNalley, C. Triomphe, BJ. Kalsi
Test Unit/Tank: TU29, TK25
Test Type: Clean Up, Test

FINAL Copies
edited at
Norward Head Office

GENERAL INFORMATION

Client Information:

Company: Chevron Canada Resources
Contact:
Phone: Fax: e-mail:

Site Information:

Contact: G. McNalley, C. Triomphe, BJ. Kalsi
Phone: Fax: e-mail:

Well Information:

Name: Chevron et al Fort Liard
Operator:
Location-Downhole: K-29
Location-Surface:

Test Information:

Company:	Norward Energy Services		
Representative:	Ron Norgaard/Paul Ringrose – Northern Operations		
Supervisor:	R. Rutherford, M. Russell		
Test Type:	Clean Up, Test	Job Number:	GP99-48
Test Unit:	TU#29, TK#25		
Start Date:	1999/04/03	Start Time:	07:00:00
End Date:	1999/04/19	End Time:	06:00:00
Report Date:	1999/04/22	Prepared By:	Cindy Brunt
Remarks:		Qualified By:	

FieldNotes

Gas Meter 1

Meter Type:	Orifice Meter	
Meter Size:	147.02	mm
Previous Gas Production:	0.000	10^3m^3
Tap Type:	Flange	
Tap Location:	Downstream	
Gas Gravity (G):	0.740	
CO_2:	17.53	%
H_2S:	0.40	%
N_2:	3.49	%
Critical Temperature (T_c):	208.80	K
Critical Pressure (P_c):	5063.00	kPa

Gas Meter 2

Meter Type:	Orifice Meter	
Meter Size:	97.18	mm
Previous Gas Production:	0.000	10^3m^3
Tap Type:	Flange	
Tap Location:	Downstream	
Gas Gravity (G):	0.740	
CO_2:	17.53	%
H_2S:	0.40	%
N_2:	3.49	%
Critical Temperature (T_c):	208.80	K
Critical Pressure (P_c):	5063.00	kPa

Oil Meter1

Meter Type:	Produced Volume	
Measurement Type:	Incremental	
Previous Oil Production:	0.000	m^3
Previous Water Production:	0.000	m^3

FieldNotes

Water Meter1

Meter Type:	Produced Volume
Measurement type:	Incremental
Previous Water Production:	0.000 m^3

Chevron Canada Resources
0 K-29
Start Test Date: 1999/04/03
Final Test Date: 1999/04/19

FieldNotes
Field Measurements

Chevron et al Fort Liard
Formation: Nahanni
Job Number: GP99-48

	Date	Clock Time	Tbg Pres	Csg Pres	WHT	Orifice	Static Pres	Diff Pres	Meter Temp	Gas Rate	Cum. Gas	Fld Gain	BSW	H2O Gain	H2O Rate	Cum. H2O	Oil Gain	Oil Rate	Cum. Oil	Ph	Salinity	Solid Per.
	yyyy/mm/d	hh:mm:ss	kPa(g)	kPa(g)	°C	mm	kPa(g)	kPa	°C	$10^3m^3/d$	10^3m^3	m^3	%	m^3	m^3/d	m^3	m^3	m^3/d	m^3		ppm	%
1	1999/04/05	07:00:00	Arrive on location and rig-up test equipment as per OHS guildlines.																			
2	1999/04/09	09:00:00	Tie in flowline and Emergency Shut Down valve.																			
3		12:00:00	Pressure test surface lines to (35,000) kPa.																			
4		20:30:00	Safety meeting.																			
5		20:55:00	Begin pressure testing Dowell lines.																			
6		23:35:00	Pressure testing complete.																			
7		23:40:00	Start pumping N2 at 15 scm/min.																			
8		23:42:00	Coil running in hole.																			
9		23:55:00	Fluid to surface.																			
10		23:59:59				0.000	0	0.0	0.0	0.00	0.00	0.00	0.0	0.00	0.00	0.00	0.00	0.00	0.00			
11	1999/04/10	00:00:00	Adjust choke accordingly to maintain (2000)kPa back pressure on well.																			
12		00:30:00	Measureable fluid in sight glass.																			
13		00:35:00	2000									2.50	100.0	2.50	102.78	2.50	0.00	0.00	0.00			
14		01:00:00	2000									3.20	100.0	3.20	184.32	5.70	0.00	0.00	0.00			
15		01:30:00	2300									8.30	100.0	8.30	398.40	14.00	0.00	0.00	0.00			
16		01:44:00	Flamable gas to surface. Fluid gain shown is 100% mud.																			
17		01:50:00	Open choke to 44/64".																			
18		02:00:00	16600	12300	30.0							3.00	100.0	3.00	144.00	17.00	0.00	0.00	0.00			
19		02:13:00	Meter in service with a 3.25" (82.55mm) orifice plate.																			
20		02:15:00	14900	12300	30.0	82.550	500	40.0	36.0	207.57	19.46											
21		02:30:00	14900	12300	32.0	82.550	500	34.0	33.0	192.03	21.54	2.10	100.0	2.10	100.80	19.10	0.00	0.00	0.00			
22		03:00:00	15450	14500	33.0	82.550	500	33.8	30.0	192.43	25.55	0.70	100.0	0.70	33.60	19.80	0.00	0.00	0.00			
23		03:15:00	15700	14500	30.0	82.550	850	84.0	28.0	387.15	28.57	0.40	100.0	0.40	38.40	20.20	0.00	0.00	0.00			
24		03:15:00	Total drilling mud recovered (20.20)m3.																			
25		03:16:00	Coil tubing at surface.																			
26		03:16:00	Shut in well and await on acid job.																			
27		03:16:00				0.000	0	0.0	0.0	0.00	28.57	0.00	0.0	0.00	0.00	20.20	0.00	0.00	0.00			
28		11:00:00	Hold pre-job safety meeting.																			
29		12:00:00	Begin to fill coil, (4.0)m3 overdisplace (0.5)m3 to p.tank.																			
30		12:40:00	Pressure test coil to (21,000)kPa.																			
31		12:40:00				0.000	0	0.0	0.0	0.00	28.57	0.00	0.0	0.00	0.00	20.20	0.00	0.00	0.00			
32		12:42:00	Begin to fill wellbore with H20.																			
33		16:15:00	Adjust choke accordingly to return equal amount pumped down coil.																			
34		16:15:00	Flow back at (150) litres / minute.																			
35		16:30:00	5000									3.60	100.0	3.60	22.54	23.80	0.00	0.00	0.00	7.000	1000	1.40
36		16:45:00	4950									3.50	100.0	3.50	336.00	27.30	0.00	0.00	0.00			
37		17:00:00	5150									3.80	100.0	3.80	364.80	31.10	0.00	0.00	0.00	7.000	1100	1.60
38		17:01:00	Flow back at (170) litres / minute.																			
39		17:15:00	4800									2.60	100.0	2.60	249.60	33.70	0.00	0.00	0.00			
40		17:20:00	Acid at nozzle for wash #1.																			
41		17:30:00	4600									2.40	100.0	2.40	230.40	36.10	0.00	0.00	0.00	7.000	1000	1.40
42		17:31:00	Decrease choke to maintain (2,500)kPa.																			
43		17:45:00	Flow back at (120) litres / minute.																			
44		18:00:00	700									2.20	100.0	2.20	105.60	38.30	0.00	0.00	0.00	7.000	1000	4.40
45		19:00:00	H2S reading (0.7)% by Gastec.																			
46		19:00:00	7000									2.30	100.0	2.30	55.20	40.60	0.00	0.00	0.00	7.000	12000	3.00
47		19:30:00	7000									0.80	100.0	0.80	38.40	41.40	0.00	0.00	0.00	7.000	12000	4.00

FieldNotes
Field Measurements

	Date	Clock Time	Tbg Pres	Csg Pres	WHT	Orifice	Static Pres	Diff Pres	Meter Temp	Gas Rate	Cum. Gas	Fld Gain	BSW	H2O Gain	H2O Rate	Cum. H2O	Oil Gain	Oil Rate	Cum. Oil	Ph	Salinity	Solid Per.
	yyyy/mm/d	hh:mm:ss	kPa(g)	kPa(g)	°C	mm	kPa(g)	kPa	°C	$10^3m^3/d$	10^3m^3	m^3	%	m^3	m^3/d	m^3	m^3	m^3/d	m^3		ppm	%
48	1999/04/10	19:31:00	Adjust choke to hold 2.5 MPa.																			
49		19:45:00	2500									5.60	100.0	5.60	537.60	47.00	0.00	0.00	0.00	7.000	14000	5.00
50		19:55:00	Adjust choke to hold 7500 kPa.																			
51		20:00:00	7500									11.25	100.0	11.25	1080.00	58.25	0.00	0.00	0.00	7.000	14000	3.00
52		20:01:00	Pump 1 m3 of acid.																			
53		20:15:00	8500									4.40	100.0	4.40	422.40	62.65	0.00	0.00	0.00	7.000	12000	4.00
54		20:30:00	8500									4.80	100.0	4.80	460.80	67.45	0.00	0.00	0.00	7.000	14000	3.00
55		20:45:00	8400									5.30	100.0	5.30	508.80	72.75	0.00	0.00	0.00	7.000	12000	3.00
56		21:00:00	8500									2.60	100.0	2.60	249.60	75.35	0.00	0.00	0.00	7.000	14000	3.00
57		21:15:00	8500									2.90	100.0	2.90	278.40	78.25	0.00	0.00	0.00	7.000	14000	4.00
58		21:30:00	8500									2.80	100.0	2.80	268.80	81.05	0.00	0.00	0.00	7.000	14000	3.00
59		21:45:00	8500									2.90	100.0	2.90	278.40	83.95	0.00	0.00	0.00	7.000	14000	3.00
60		22:00:00	8500									2.80	100.0	2.80	268.80	86.75	0.00	0.00	0.00	7.000	14000	3.00
61		22:00:00	Start pumping acid, adjust choke to hold 12000 kPa.																			
62		22:15:00	12400									3.30	100.0	3.30	316.80	90.05	0.00	0.00	0.00	7.000	10000	3.00
63		22:30:00	12000									3.10	100.0	3.10	297.60	93.15	0.00	0.00	0.00	7.000	10000	2.00
64		22:45:00	12200									4.60	100.0	4.60	441.60	97.75	0.00	0.00	0.00	2.000		1.00
65		23:00:00	12400									2.00	100.0	2.00	192.00	99.75	0.00	0.00	0.00	1.000		0.30
66		23:15:00	12800									4.00	100.0	4.00	384.00	103.75	0.00	0.00	0.00	1.000		0.40
67		23:30:00	12600									1.40	100.0	1.40	134.40	105.15	0.00	0.00	0.00	1.000	270000	0.40
68		23:45:00	11500									1.20	100.0	1.20	115.20	106.35	0.00	0.00	0.00	1.000	270000	0.50
69	1999/04/11	00:00:00	10600									1.40	100.0	1.40	134.40	107.75	0.00	0.00	0.00	1.000	270000	0.50
70		00:00:00	Shut in at choke unable to hold 12000 kPa.																			
71		00:15:00	Start acid squeeze.																			
72		03:15:00	Obstruction in open hole, open to flow, attempting to draw down to 7000 kPa.																			
73		03:30:00	13000																			
74		03:30:00	Unable to draw down to 7 MPa.																			
75		03:45:00	13000									4.00	100.0	4.00	25.60	111.75	0.00	0.00	0.00	1.000	270000	0.10
76		03:45:00	Shut in, coil run in to try and clear obstruction, resume acid squeeze.																			
77		03:45:01				0.000	0	0.0	0.0	0.00	28.57	0.00	0.0	0.00	0.00	111.75	0.00	0.00	0.00			
78		05:19:58	21400							0.00	28.57											
79		05:20:00				0.000	0	0.0	0.0	0.00	28.57	0.00	0.0	0.00	0.00	111.75	0.00	0.00	0.00			
80		05:20:00	Open to flow on a 16/64" (6.35mm) choke.																			
81		05:25:00	11700	0	20.0																	
82		05:30:00	12100	0	22.0																	
83		05:35:00	Shut in, re-light pilot.																			
84		05:50:00	Open to flow on a 38/64" (15.08mm) choke.																			
85		05:55:00	12000	0	20.0																	
86		06:00:00	12100	0	22.0																	
87		06:05:00	Shut in, repair leak.																			
88		06:20:00	Open to flow on a 38/64" (15.08mm) choke.																			
89		06:20:00	21500	0						0.00	28.57											
90		06:25:00	13500	0	20.0																	
91		06:30:00	13500	0	22.0																	
92		06:30:00	Meter in service with a 3.25" (82.55mm) orifice plate.																			
93		06:45:00	13200	0	22.0	82.550	4000	30.0	18.0	502.45	58.23											
94		06:50:00	Open choke to 45/64" (17.86mm).																			

	Date	Clock Time	Tbg Pres	Csg Pres	WHT	Orifice	Static Pres	Diff Pres	Meter Temp	Gas Rate	Cum. Gas	Fld Gain	BSW	H2O Gain	H2O Rate	Cum. H2O	Oil Gain	Oil Rate	Cum. Oil	Ph	Salinity	Solid Per.
	yyyy/mm/d	hh:mm:ss	kPa(g)	kPa(g)	°C	mm	kPa(g)	kPa	°C	$10^3m^3/d$	10^3m^3	m^3	%	m^3	m^3/d	m^3	m^3	m^3/d	m^3		ppm	%
95	1999/04/11	07:00:00	12100	0	22.0	82.550	3600	44.0	18.0	575.69	63.84											
96		07:00:00	Shut in, monitor buildups.																			
97		07:00:01				0.000	0	0.0	0.0	0.00	63.84	0.00	0.0	0.00	0.00	111.75	0.00	0.00	0.00			
98		07:30:00	22000																			
99		08:00:00	22280																			
100		09:00:00	22285																			
101		09:15:00	Shut in well to rig-off coil tubing injector head.																			
102		16:45:00	Open well to obtain pressures.																			
103		17:00:00	23330																			
104		17:00:00	Bleed off wellhead and rig-up slickline to run static gradient.																			
105		19:00:00	Wireline run in to do static gradient.																			
106	1999/04/12	00:00:00	Wireline out, static gradient complete.																			
107		00:30:00	Wireline having trouble running in.																			
108		03:00:00	Wireline running in holt with no-go.																			
109		03:35:00	Wireline out of hole.																			
110		03:45:00	Wireline running in with recorders.(2 runs)																			
111		05:30:00	Wireline out of hole, recorders set. Rig off wellhead.																			
112		08:15:00	Open well and record tubing and casing pressures (vac).																			
113		08:30:00	22370																			
114		08:45:00	Open wing-valve and pressure up to choke.																			
115		08:59:59																				
116		09:00:00	Open choke to flow on a (24/64) (9.53)mm. RATE # 1.																			
117		09:01:00	Dri-flow meter in service with a (3.25)" (82.55)mm orifice plate.																			
118		09:05:00	22120	0	16.0	82.550	1200	26.0	26.0	251.25	64.72											
119		09:10:00	21300	0	18.0	82.550	1190	29.0	26.0	264.40	65.62											
120		09:15:00	21270	0	18.0	82.550	1200	23.0	30.0	234.53	66.48											
121		09:30:00	21380	0	20.0	82.550	1050	20.8	35.0	207.58	68.79											
122		09:38:00	Rock choke to clear debris.																			
123		09:45:00	21400	230	18.0	82.550	1170	21.5	28.0	224.83	71.04											
124	1999/04/12	10:00:00	21520	920	20.0	82.550	1170	21.3	28.0	223.77	73.37											
125		10:00:00	Deadweight on static (1175)kPa adjust dri-flow to match.																			
126		10:00:00	Pump (1.5)m3 into test tank to raise fluid level into sight glass.																			
127		10:30:00	21580	2875	20.0	82.550	1170	21.0	28.0	222.18	78.02											
128		10:55:00	Rock choke to clear debris.																			
129		11:00:00	21560	4750	25.0	82.550	1150	21.0	28.0	220.38	82.63											
130		11:15:00	Supply gas failure. Begin injection methanol across choke.																			
131		11:30:00	21560	5275	28.0	82.550	1150	21.5	26.0	223.81	87.26											
132		11:35:00	Measureable fluid to surface. Sample is milky white in color. Bled off annulus pressure.																			
133		12:00:00	21430	2000	27.0	82.550	1200	21.1	22.0	227.88	91.96	0.15	100.0	0.15	1.20	111.90	0.00	0.00	0.00	5.000	22000	0.20
134		12:30:00	21460	3550	27.0	82.550	1180	21.5	22.0	228.22	96.71											
135		12:45:00	Supply gas back on line. Bled off annulus pressure.																			
136		13:00:00	21510	2400	30.0	82.550	1180	22.2	28.0	229.40	101.48	0.20	100.0	0.20	4.80	112.10	0.00	0.00	0.00	5.000	22000	0.10
137		13:00:00	Samples taken 2 - HP gas cylinders #(20745) #(18603); 2 stock water from high-stage.																			
138		13:30:00	21610	3650	30.0	82.550	1180	22.2	28.0	229.40	106.26											
139	1999/04/12	14:00:00	21650	4650	32.0	82.550	1180	22.2	28.0	229.40	111.04	0.20	100.0	0.20	4.80	112.30	0.00	0.00	0.00	5.000	22000	0.00
140		14:00:00	Deadweight on static is (1180)kPa. H2S = (2000)ppm.																			
141		14:20:00	Hydrations in surface equipment, increased line-heater temperature. Bled off annulus pressure.																			

	Date	Clock Time	Tbg Pres	Csg Pres	WHT	Orifice	Static Pres	Diff Pres	Meter Temp	Gas Rate	Cum. Gas	Fld Gain	BSW	H2O Gain	H2O Rate	Cum. H2O	Oil Gain	Oil Rate	Cum. Oil	Ph	Salinity	Solid Per.
	yyyy/mm/d	hh:mm:ss	kPa(g)	kPa(g)	°C	mm	kPa(g)	kPa	°C	$10^3m^3/d$	10^3m^3	m^3	%	m^3	m^3/d	m^3	m^3	m^3/d	m^3		ppm	%
142	1999/04/12	14:30:00	21680	2400	33.0	82.550	1180	22.2	30.0	228.57	115.81											
143		15:00:00	21710	3650	34.0	82.550	1180	22.2	30.0	228.57	120.57	0.15	100.0	0.15	3.60	112.45	0.00	0.00	0.00	5.000	22000	0.10
144		15:00:00	Bleed off annulus as required to hold (2000)kPa - (4000)kPa.																			
145		15:30:00	21715	2000	34.0	82.550	1185	22.2	30.0	229.03	125.34											
146		16:00:00	21720	2750	37.0	82.550	1185	22.2	30.0	229.03	130.11	0.20	100.0	0.20	4.80	112.65	0.00	0.00	0.00	5.000	20000	0.10
147		16:30:00	21740	3450	39.0	82.550	1185	22.2	30.0	229.03	134.88											
148		17:00:00	21760	4000	39.0	82.550	1185	22.2	30.0	229.03	139.65	0.15	100.0	0.15	3.60	112.80	0.00	0.00	0.00	5.000	22000	
149		17:30:00	21770	2600	39.0	82.550	1185	22.2	30.0	229.03	144.42											
150	1999/04/12	18:00:00	21760	3250	41.0	82.550	1185	22.3	30.0	229.55	149.20	0.20	100.0	0.20	4.80	113.00	0.00	0.00	0.00	5.000	22000	
151		18:00:00	H2S by Gastec = (5000)ppm.																			
152		18:30:00	21770	2900	43.0	82.550	1185	22.3	30.0	229.55	153.98											
153		19:00:00	21770	2000	43.0	82.550	1185	22.3	30.0	229.55	158.76	0.15	100.0	0.15	3.60	113.15	0.00	0.00	0.00	5.000	24000	0.10
154		19:00:01	End of rate #1. BEGIN RATE #2.																			
155		19:00:01	Increase choke to 28/64" (11.11)mm. Increase choke to 32/64" (12.700)mm.																			
156		19:05:00	19740	2200	44.0	82.550	1300	60.0	16.0	405.52	159.87											
157		19:10:00	19800	2900	44.0	82.550	1300	60.0	16.0	405.52	161.27											
158		19:15:00	19870	3150	45.0	82.550	1300	60.0	16.0	405.52	162.68											
159		19:30:00	19990	2000	44.0	82.550	1300	60.0	16.0	405.52	166.91											
160		19:45:00	20050	2800	44.0	82.550	1300	60.0	16.0	405.52	171.13											
161		20:00:00	20010	3700	45.0	82.550	1280	60.0	17.0	401.77	175.34	0.45	100.0	0.45	10.80	113.60	0.00	0.00	0.00	5.000	14000	
162		20:30:00	20210	2000	46.0	82.550	1280	60.0	18.0	401.01	183.70											
163		21:00:00	20300	3300	48.0	82.550	1280	59.0	17.0	398.37	192.02	0.45	100.0	0.45	10.80	114.05	0.00	0.00	0.00	5.000	12000	
164		21:30:00	20310	2000	50.0	82.550	1250	58.5	10.0	397.55	200.32											
165		22:00:00	20350	3000	50.0	82.550	1250	58.0	7.0	398.18	208.60	0.35	100.0	0.35	8.40	114.40	0.00	0.00	0.00	5.000	12000	0.10
166		22:30:00	20350	2000	50.0	82.550	1250	58.0	4.0	400.58	216.92											
167		23:00:00	20410	2850	50.0	82.550	1250	58.0	12.0	394.29	225.20	0.40	100.0	0.40	9.60	114.80	0.00	0.00	0.00	5.000	12000	
168		23:30:00	20450	3500	50.0	82.550	1250	57.5	18.0	388.07	233.35											
169	1999/04/13	00:00:00	20480	2000	54.0	82.550	1260	57.5	22.0	386.63	241.42	0.20	100.0	0.20	4.80	115.00	0.00	0.00	0.00	5.000	12000	
170		00:30:00	20510	2600	54.0	82.550	1260	58.0	24.0	386.89	249.48											
171		01:00:00	20540	3000	56.0	82.550	1260	58.0	26.0	385.47	257.53	0.35	100.0	0.35	8.40	115.35	0.00	0.00	0.00	5.000	12000	
172		01:30:00	20560	3500	56.0	82.550	1260	57.8	28.0	383.40	265.54											
173		02:00:00	20580	2000	56.0	82.550	1260	57.8	30.0	382.02	273.51	0.35	100.0	0.35	8.40	115.70	0.00	0.00	0.00	5.000	12000	
174		02:30:00	20600	2350	58.0	82.550	1260	57.8	32.0	380.65	281.45											
175		03:00:00	20600	2700	58.0	82.550	1260	58.0	31.0	382.00	289.40	0.35	100.0	0.35	8.40	116.05	0.00	0.00	0.00	5.000	12000	
176		03:30:00	20600	3050	60.0	82.550	1260	58.0	31.0	382.00	297.36											
177		04:00:00	20600	3400	60.0	82.550	1260	58.0	32.0	381.32	305.31	0.30	100.0	0.30	7.20	116.35	0.00	0.00	0.00	5.000	12000	
178		04:30:00	20610	3700	60.0	82.550	1260	57.8	32.0	380.65	313.24											
179		05:00:00	20610	2000	60.0	82.550	1260	57.8	32.0	380.65	321.18	0.30	100.0	0.30	7.20	116.65	0.00	0.00	0.00	5.000	12000	
180		05:00:01	End of rate #2. BEGIN RATE #3.																			
181		05:00:02	Open choke to 38/64" (15.08mm).																			
182		05:03:00	Open choke to 40/64" (15.88mm).																			
183		05:05:00	18550	2250	60.0																	
184		05:10:00	18500	2400	59.0																	
185		05:15:00	18500	2700	58.0	82.550	2010	70.0	32.0	525.26	325.89											
186		05:30:00	18470	3400	60.0	82.550	2010	70.0	33.0	524.29	331.36											
187		05:45:00	18420	3900	62.0	82.550	2010	70.0	31.0	526.25	336.83											
188	1999/04/13	06:00:00	18400	2000	64.0	82.550	2010	70.0	29.0	528.24	342.32	0.50	100.0	0.50	12.00	117.15	0.00	0.00	0.00	5.000	12000	0.10

	Date	Clock Time	Tbg Pres	Csg Pres	WHT	Orifice	Static Pres	Diff Pres	Meter Temp	Gas Rate	Cum. Gas	Fld Gain	BSW	H2O Gain	H2O Rate	Cum. H2O	Oil Gain	Oil Rate	Cum. Oil	Ph	Salinity	Solid Per.
	yyyy/mm/d	hh:mm:ss	kPa(g)	kPa(g)	°C	mm	kPa(g)	kPa	°C	$10^3m^3/d$	10^3m^3	m^3	%	m^3	m^3/d	m^3	m^3	m^3/d	m^3		ppm	%
189	1999/04/13	06:30:00	18390	2750	58.0	82.550	2010	70.0	30.0	527.24	353.32											
190		07:00:00	Deadweight on static (2050) kPa.																			
191		07:00:00	18370	3100	61.0	82.550	2050	69.4	30.0	530.08	364.33	0.60	100.0	0.60	14.40	117.75	0.00	0.00	0.00	5.000	10000	0.10
192		07:30:00	18370	3400	67.0	82.550	2050	69.4	30.0	530.08	375.38											
193		08:00:00	18380	3550	67.0	82.550	2050	69.0	31.0	527.54	386.39	0.40	100.0	0.40	9.60	118.15	0.00	0.00	0.00	5.000	10000	0.10
194		08:30:00	18380	3750	67.0	82.550	2050	69.0	31.0	527.54	397.38											
195		08:30:00	Samples taken: 2 HP gas cylinders # (22064), (6879).																			
196		09:00:00	18410	2400	67.0	82.550	2050	69.0	31.0	527.54	408.37	0.55	100.0	0.55	13.20	118.70	0.00	0.00	0.00	4.000	10000	
197		09:00:00	Deadweight on static (2070) kPa.																			
198		09:30:00	18440	2800	67.0	82.550	2070	68.8	30.0	530.30	419.39											
199	1999/04/13	10:00:00	18450	3050	70.0	82.550	2070	68.8	30.0	530.30	430.44	0.55	100.0	0.55	13.20	119.25	0.00	0.00	0.00	4.000	6000	0.10
200		10:30:00	18470	3600	70.0	82.550	2070	68.8	30.0	530.30	441.49											
201		11:00:00	18490	3850	70.0	82.550	2070	68.6	30.0	529.52	452.53	0.60	100.0	0.60	14.40	119.85	0.00	0.00	0.00	4.000	6000	
202		11:30:00	18520	3800	75.0	82.550	2075	69.0	32.0	529.71	463.56											
203		12:00:00	18530	4000	74.0	82.550	2075	69.0	32.0	529.71	474.60	0.50	100.0	0.50	12.00	120.35	0.00	0.00	0.00	5.000	6000	
204		12:30:00	18550	2050	73.0	82.550	2075	68.9	33.0	528.33	485.62											
205		13:00:00	18590	2400	72.0	82.550	2075	68.9	33.0	528.33	496.62	0.50	100.0	0.50	12.00	120.85	0.00	0.00	0.00	5.000	6000	
206		13:30:00	18620	2350	72.0	82.550	2075	68.9	34.0	527.35	507.62											
207	1999/04/13	14:00:00	18630	2550	73.0	82.550	2075	69.0	34.0	527.73	518.61	0.45	100.0	0.45	10.80	121.30	0.00	0.00	0.00	5.000	6000	0.10
208		14:30:00	18670	2700	73.0	82.550	2075	69.0	35.0	526.75	529.60											
209		15:00:00	18690	1000	75.0	82.550	2075	69.0	35.0	526.75	540.57	0.45	100.0	0.45	10.80	121.75	0.00	0.00	0.00	5.000	6000	
210		15:00:00	End of rate #3. BEGIN RATE #4.																			
211		15:00:00	Increase choke to 50.800 mm. Dri-flow meter in service with a 107.95 mm orifice plate.																			
212		15:05:00	8100	1550	74.0																	
213		15:10:00	8170	1600	74.0																	
214		15:15:00	8070	1710	79.0	107.950	2700	48.0	40.0	945.36	548.24											
215		15:30:00	8630	2650	75.0	107.950	2070	50.0	60.0	816.15	557.41											
216		15:45:00	8040	3400	76.0	107.950	2050	46.0	64.0	773.84	565.69											
217		16:00:00	7670	3650	76.0	107.950	2050	48.0	64.0	790.56	573.84	5.20	100.0	5.20	124.80	126.95	0.00	0.00	0.00	5.000	168000	0.00
218		16:30:00	8530	2150	77.0	107.950	2100	48.0	63.0	801.26	590.42											
219		17:00:00	7630	2150	76.0	107.950	2100	46.5	62.0	789.89	607.00	4.10	100.0	4.10	98.40	131.05	0.00	0.00	0.00	6.000	142000	0.00
220		17:30:00	7630	2000	76.0	107.950	2100	46.5	62.0	789.89	623.45											
221	1999/04/13	18:00:00	7940	1950	75.0	107.950	2100	48.0	61.0	803.91	640.05	1.20	100.0	1.20	28.80	132.25	0.00	0.00	0.00	6.000	112000	0.10
222		18:30:00	7520	1900	72.0	107.950	2180	47.0	62.0	808.87	656.85											
223		19:00:00	7490	1850	74.0	107.950	2100	46.5	62.0	789.89	673.51	0.45	100.0	0.45	10.80	132.70	0.00	0.00	0.00	7.000	130000	20.00
224		19:30:00	7590	1900	74.0	107.950	2100	45.0	61.0	778.27	689.84											
225		20:00:00	7570	1900	73.0	107.950	2260	44.0	62.0	796.55	706.25	0.20	100.0	0.20	4.80	132.90	0.00	0.00	0.00	6.000	140000	10.00
226		20:30:00	7590	1950	74.0	107.950	2260	44.0	62.0	796.55	722.84											
227		21:00:00	7690	2000	74.0	107.950	2260	44.0	62.0	796.55	739.44	0.10	100.0	0.10	2.40	133.00	0.00	0.00	0.00	6.000	136000	12.00
228		21:30:00	2000	2000	76.0	107.950	2280	44.0	61.0	801.36	756.08											
229		22:00:00	2400	2400	76.0	107.950	2280	44.0	62.0	800.02	772.76	0.00	100.0	0.00	0.00	133.00	0.00	0.00	0.00			
230		22:30:00	7900	2500	71.0	107.950	2270	44.0	62.0	798.29	789.41											
231		23:00:00	8250	2950	68.0	107.950	2370	55.0	68.0	903.15	807.13	1.25	100.0	1.25	30.00	134.25	0.00	0.00	0.00	7.000	44000	10.00
232		23:30:00	8250	3050	56.0	107.950	2310	53.0	65.0	879.68	825.71											
233	1999/04/14	00:00:00	7620	3500	56.0	107.950	2190	52.5	67.0	850.01	843.72	1.40	100.0	1.40	33.60	135.65	0.00	0.00	0.00	7.000	40000	7.00
234		00:00:00	H2S by Gastec = (0.75)%.																			
235		00:30:00	7870	3550	70.0	107.950	2270	54.0	68.0	876.05	861.70											

	Date	Clock Time	Tbg Pres	Csg Pres	WHT	Orifice	Static Pres	Diff Pres	Meter Temp	Gas Rate	Cum. Gas	Fld Gain	BSW	H2O Gain	H2O Rate	Cum. H2O	Oil Gain	Oil Rate	Cum. Oil	Ph	Salinity	Solid Per.
	yyyy/mm/d	hh:mm:ss	kPa(g)	kPa(g)	°C	mm	kPa(g)	kPa	°C	$10^3m^3/d$	10^3m^3	m^3	%	m^3	m^3/d	m^3	m^3	m^3/d	m^3		ppm	%
236	1999/04/14	01:00:00	7890	3550	70.0	107.950	2230	54.0	68.0	868.42	879.87	1.20	100.0	1.20	28.80	136.85	0.00	0.00	0.00	6.000	132000	2.00
237		01:30:00	7970	4600	70.0	107.950	2270	54.0	66.0	878.91	898.08											
238		02:00:00	7950	2000	70.0	107.950	2270	55.0	66.0	887.05	916.47	0.70	100.0	0.70	16.80	137.55	0.00	0.00	0.00	6.000	114000	4.00
239		02:30:00	7750	2000	70.0	107.950	2270	54.0	66.0	878.91	934.87											
240		03:00:00	7700	1900	70.0	107.950	2270	48.0	66.0	828.43	952.65	0.60	100.0	0.60	14.40	138.15	0.00	0.00	0.00	6.000	106000	3.00
241		03:30:00	7750	2000	70.0	107.950	2180	49.0	66.0	820.55	969.83											
242		04:00:00	7490	1650	70.0	107.950	2030	48.0	64.0	786.77	986.57	1.20	100.0	1.20	28.80	139.35	0.00	0.00	0.00	6.000	90000	15.00
243		04:30:00	7400	1550	70.0	107.950	2020	47.0	64.0	776.62	1002.86											
244		05:00:00	7450	1500	70.0	107.950	2000	47.0	64.0	772.85	1019.00	1.15	100.0	1.15	27.60	140.50	0.00	0.00	0.00	7.000	110000	8.00
245		05:30:00	7600	1550	70.0	107.950	2100	47.0	64.0	791.53	1035.29											
246	1999/04/14	06:00:00	7620	1700	74.0	107.950	2160	50.0	64.0	827.88	1052.16	0.95	100.0	0.95	22.80	141.45	0.00	0.00	0.00	7.000	112000	6.00
247		06:30:00	7920	2000	72.0	107.950	2300	51.0	64.0	862.42	1069.77											
248		07:00:00	7990	2150	70.0	107.950	2250	52.5	64.0	865.64	1087.77	0.50	100.0	0.50	12.00	141.95	0.00	0.00	0.00	7.000	112000	15.00
249		07:30:00	8040	2350	72.0	107.950	2250	53.0	64.0	869.77	1105.85											
250		08:00:00	8040	2500	74.0	107.950	2250	53.5	65.0	872.44	1123.99	0.50	100.0	0.50	12.00	142.45	0.00	0.00	0.00	6.000	40000	25.00
251		08:30:00	8050	2600	76.0	107.950	2225	55.5	65.0	883.80	1142.29											
252		09:00:00	8080	2700	77.0	107.950	2125	55.0	65.0	860.14	1160.46	0.70	100.0	0.70	16.80	143.15	0.00	0.00	0.00	6.000	44000	5.50
253		09:30:00	8120	2800	69.0	107.950	2150	55.0	65.0	865.09	1178.43											
254	1999/04/14	10:00:00	8020	2850	66.0	107.950	2150	55.0	65.0	865.09	1196.45	0.90	100.0	0.90	21.60	144.05	0.00	0.00	0.00	6.000	58000	17.00
255		10:00:00	H2S by Tutweiler = (0.973)%.																			
256		10:30:00	7945	2850	75.0	107.950	2150	55.0	67.0	862.28	1214.44											
257		11:00:00	8090	3050	76.0	107.950	2250	55.0	67.0	881.75	1232.61	0.70	100.0	0.70	16.80	144.75	0.00	0.00	0.00	6.000	54000	22.00
258		11:30:00	8290	3250	75.0	107.950	2250	58.0	67.0	905.60	1251.23											
259		12:00:00	8070	3400	75.0	107.950	2270	58.0	67.0	909.55	1270.14	0.50	100.0	0.50	12.00	145.25	0.00	0.00	0.00	6.000	54000	20.00
260		12:00:00	Sample #1 taken 1 litre of stock H2O.																			
261		12:30:00	8080	3500	77.0	107.950	2250	58.0	67.0	905.60	1289.04											
262		12:58:00	Pnuematic back pressure valve in service.																			
263		13:00:00	8100	3550	77.0	107.950	2250	56.0	68.0	888.32	1307.73	0.85	100.0	0.85	20.40	146.10	0.00	0.00	0.00	6.000	60000	15.00
264		13:30:00	8045	3650	76.0	107.950	2250	56.0	68.0	888.32	1326.24											
265	1999/04/14	14:00:00	8350	3675	79.0	107.950	2240	53.0	68.0	862.20	1344.47	0.80	100.0	0.80	19.20	146.90	0.00	0.00	0.00	6.000	50000	20.00
266		14:30:00	8120	3700	81.0	107.950	2250	54.0	69.0	870.83	1362.52											
267		15:00:00	8040	3700	78.0	107.950	2240	55.0	69.0	876.97	1380.73	0.75	100.0	0.75	18.00	147.65	0.00	0.00	0.00	6.000	45000	14.00
268		15:30:00	8050	3700	78.0	107.950	2240	55.0	69.0	876.97	1399.00											
269		16:00:00	8170	3700	75.0	107.950	2250	56.0	69.0	886.88	1417.37	0.85	100.0	0.85	20.40	148.50	0.00	0.00	0.00	6.000	40000	17.00
270		16:30:00	8230	3800	80.0	107.950	2320	57.0	69.0	908.40	1436.07											
271		17:00:00	8250	3900	79.0	107.950	2320	58.0	69.0	916.38	1455.08	0.70	100.0	0.70	16.80	149.20	0.00	0.00	0.00	6.000	61000	12.00
272		17:30:00	8250	4000	79.0	107.950	2320	57.5	69.0	912.40	1474.13											
273	1999/04/14	18:00:00	8340	1950	80.0	107.950	2320	57.5	69.0	912.40	1493.14	0.75	100.0	0.75	18.00	149.95	0.00	0.00	0.00	6.000	54000	20.00
274		18:00:00	Sample #2 taken 1 litre H20.																			
275		18:00:00	2 HP gas cylinders taken # (30866), #(779).																			
276		18:30:00	8270	2000	78.0	107.950	2270	57.0	69.0	898.71	1512.01											
277		19:00:00	8200	2070	79.0	107.950	2290	58.0	69.0	910.52	1530.85	0.40	100.0	0.40	9.60	150.35	0.00	0.00	0.00	6.000	42000	18.00
278		19:30:00	8220	2100	79.0	107.950	2300	57.0	69.0	904.54	1549.76											
279		20:00:00	8430	2200	79.0	107.950	2380	58.0	70.0	926.48	1568.83	0.55	100.0	0.55	13.20	150.90	0.00	0.00	0.00	6.000	54000	10.00
280		20:30:00	8470	2225	78.0	107.950	2380	58.0	70.0	926.48	1588.13											
281		21:00:00	7750	2250	78.0	107.950	2320	58.0	70.0	914.89	1607.32	0.50	100.0	0.50	12.00	151.40	0.00	0.00	0.00	6.000	60000	5.00
282		21:30:00	8280	2350	78.0	107.950	2440	62.0	70.0	969.91	1626.95											

	Date	Clock Time	Tbg Pres	Csg Pres	WHT	Orifice	Static Pres	Diff Pres	Meter Temp	Gas Rate	Cum. Gas	Fld Gain	BSW	H2O Gain	H2O Rate	Cum. H2O	Oil Gain	Oil Rate	Cum. Oil	Ph	Salinity	Solid Per.
	yyyy/mm/d	hh:mm:ss	kPa(g)	kPa(g)	°C	mm	kPa(g)	kPa	°C	$10^3m^3/d$	10^3m^3	m^3	%	m^3	m^3/d	m^3	m^3	m^3/d	m^3		ppm	%
283	1999/04/14	22:00:00	8500	2500	80.0	107.950	2400	62.0	70.0	962.02	1647.07	0.40	100.0	0.40	9.60	151.80	0.00	0.00	0.00	6.000	62000	2.00
284		22:30:00	8410	2580	78.0	107.950	2380	61.0	72.0	947.19	1666.96											
285		23:00:00	8450	2690	78.0	107.950	2400	62.0	72.0	958.92	1686.82	0.70	100.0	0.70	16.80	152.50	0.00	0.00	0.00	6.000	40000	1.50
286		23:30:00	8370	2750	78.0	107.950	2380	62.0	71.0	956.51	1706.77											
287	1999/04/15	00:00:00	8400	2800	78.0	107.950	2380	62.0	71.0	956.51	1726.70	0.70	100.0	0.70	16.80	153.20	0.00	0.00	0.00	6.000	52000	4.00
288		00:00:00	H2S by Tutweiler = (0.795)%.																			
289		00:00:01	Sample #3 1L H2O.																			
290		00:30:00	8450	2900	78.0	107.950	2380	60.0	71.0	940.88	1746.46											
291		01:00:00	8510	2900	78.0	107.950	2400	59.0	70.0	938.34	1766.03	0.75	100.0	0.75	18.00	153.95	0.00	0.00	0.00	6.000	40000	5.00
292		01:30:00	8500	3000	78.0	107.950	2380	58.0	72.0	923.49	1785.43											
293		02:00:00	8490	3000	78.0	107.950	2390	58.0	71.0	926.90	1804.70	0.55	100.0	0.55	13.20	154.50	0.00	0.00	0.00	6.000	62000	5.00
294		02:30:00	8470	3000	78.0	107.950	2500	58.0	73.0	944.69	1824.20											
295		03:00:00	8480	3050	78.0	107.950	2450	59.0	72.0	944.88	1843.88	0.50	100.0	0.50	12.00	155.00	0.00	0.00	0.00	6.000	60000	1.00
296		03:30:00	8450	3100	78.0	107.950	2350	59.0	72.0	925.65	1863.37											
297		04:00:00	8410	3100	78.0	107.950	2400	59.0	72.0	935.31	1882.75	0.80	100.0	0.80	19.20	155.80	0.00	0.00	0.00	6.000	12000	1.00
298		04:30:00	8270	3100	78.0	107.950	2370	57.0	72.0	913.56	1902.01											
299		05:00:00	8540	3200	78.0	107.950	2440	59.0	72.0	942.98	1921.35	0.75	100.0	0.75	18.00	156.55	0.00	0.00	0.00	6.000	120000	1.00
300		05:30:00	8450	3200	80.0	107.950	2420	57.0	72.0	923.02	1940.79											
301	1999/04/15	06:00:00	8300	3200	80.0	107.950	2430	56.0	71.0	918.20	1959.97	0.65	100.0	0.65	15.60	157.20	0.00	0.00	0.00	6.000	20000	1.00
302		06:00:00	Sample #4 taken 1 litre of H2O.																			
303		06:30:00	8540	3200	76.0	107.950	2450	60.0	72.0	952.90	1979.46											
304		07:00:00	8200	3250	80.0	107.950	2470	59.0	72.0	948.69	1999.27	0.60	100.0	0.60	14.40	157.80	0.00	0.00	0.00	6.000	22000	1.00
305		07:30:00	8250	3300	75.0	107.950	2470	59.0	72.0	948.69	2019.03											
306		08:00:00	8470	3350	78.0	107.950	2470	60.0	72.0	956.73	2038.88	0.55	100.0	0.55	13.20	158.35	0.00	0.00	0.00	6.000	28000	1.00
307		08:30:00	8470	3400	78.0	107.950	2470	59.0	72.0	948.69	2058.73											
308		09:00:00	8480	3425	80.0	107.950	2470	60.0	72.0	956.73	2078.57	0.75	100.0	0.75	18.00	159.10	0.00	0.00	0.00	6.000	58000	1.00
309		09:30:00	8470	3450	80.0	107.950	2470	59.0	72.0	948.69	2098.42											
310	1999/04/15	10:00:00	8300	3500	80.0	107.950	2470	59.0	72.0	948.69	2118.19	0.45	100.0	0.45	10.80	159.55	0.00	0.00	0.00	6.000	62000	1.30
311		10:30:00	8470	3500	80.0	107.950	2470	58.5	73.0	943.12	2137.89											
312		11:00:00	8460	3550	80.0	107.950	2480	57.0	73.0	932.76	2157.43	0.65	100.0	0.65	15.60	160.20	0.00	0.00	0.00	6.000	62000	1.40
313		11:30:00	8470	3575	79.0	107.950	2480	57.5	73.0	936.86	2176.91											
314		12:00:00	8470	3600	79.0	107.950	2480	57.0	74.0	931.26	2196.37	0.60	100.0	0.60	14.40	160.80	0.00	0.00	0.00	6.000	72000	1.10
315		12:00:00	H2S by Tutweiler = (0.931)%.																			
316		12:00:00	Sample # 5 taken.																			
317		12:30:00	8500	3625	79.0	107.950	2470	56.0	73.0	922.66	2215.68											
318		13:00:00	8410	3650	79.0	107.950	2510	57.0	73.0	938.32	2235.07	0.60	100.0	0.60	14.40	161.40	0.00	0.00	0.00	6.000	60000	1.00
319		13:30:00	8470	3700	79.0	107.950	2590	58.0	73.0	961.38	2254.85											
320	1999/04/15	14:00:00	8450	3725	79.0	107.950	2560	56.6	72.0	945.72	2274.72	0.55	100.0	0.55	13.20	161.95	0.00	0.00	0.00	6.000	58000	1.30
321		14:30:00	8500	3650	80.0	107.950	2540	55.8	73.0	933.83	2294.30											
322		15:00:00	8440	3700	78.0	107.950	2550	56.6	73.0	942.36	2313.84	0.60	100.0	0.60	14.40	162.55	0.00	0.00	0.00	6.000	60000	1.00
323		15:30:00	8440	3750	78.0	107.950	2450	59.0	73.0	943.36	2333.48											
324		16:00:00	8460	3750	82.0	107.950	2450	59.5	73.0	947.37	2353.18	0.60	100.0	0.60	14.40	163.15	0.00	0.00	0.00	6.000	42000	0.80
325		16:30:00	8340	3800	73.0	107.950	2420	59.0	73.0	937.64	2372.82											
326		17:00:00	8440	3800	74.0	107.950	2420	58.2	73.0	931.23	2392.28	0.30	100.0	0.30	7.20	163.45	0.00	0.00	0.00	6.000	32000	0.60
327		17:30:00	8420	3800	75.0	107.950	2420	59.0	73.0	937.64	2411.75											
328	1999/04/15	18:00:00	8500	3950	77.0	107.950	2420	58.5	73.0	933.64	2431.24	0.30	100.0	0.30	7.20	163.75	0.00	0.00	0.00	6.000	28000	1.00
329		18:00:00	Sample #6 taken 1 Litre H20.																			

	Date	Clock Time	Tbg Pres	Csg Pres	WHT	Orifice	Static Pres	Diff Pres	Meter Temp	Gas Rate	Cum. Gas	Fld Gain	BSW	H2O Gain	H2O Rate	Cum. H2O	Oil Gain	Oil Rate	Cum. Oil	Ph	Salinity	Solid Per.
	yyyy/mm/d	hh:mm:ss	kPa(g)	kPa(g)	°C	mm	kPa(g)	kPa	°C	$10^3m^3/d$	10^3m^3	m^3	%	m^3	m^3/d	m^3	m^3	m^3/d	m^3		ppm	%
330	1999/04/15	18:30:00	8470	3850	76.0	107.950	2400	59.0	73.0	933.81	2450.70											
331		19:00:00	8450	3900	76.0	107.950	2430	59.0	74.0	938.05	2470.19	0.35	100.0	0.35	8.40	164.10	0.00	0.00	0.00	6.000	30000	0.50
332		19:30:00	8460	3900	82.0	107.950	2440	59.0	74.0	939.95	2489.76											
333		20:00:00	8440	3900	78.0	107.950	2460	59.0	74.0	943.75	2509.38	0.50	100.0	0.50	12.00	164.60	0.00	0.00	0.00	6.000	32000	1.00
334		20:30:00	8430	2000	76.0	107.950	2450	59.0	74.0	941.85	2529.02											
335		21:00:00	8450	2000	76.0	107.950	2450	60.0	74.0	949.84	2548.73	0.35	100.0	0.35	8.40	164.95	0.00	0.00	0.00	6.000	22000	1.00
336		21:30:00	8420	2100	76.0	107.950	2450	59.5	74.0	945.85	2568.47											
337		22:00:00	8410	2190	76.0	107.950	2480	59.0	74.0	947.53	2588.19	0.35	100.0	0.35	8.40	165.30	0.00	0.00	0.00	6.000	24000	0.50
338		22:30:00	8400	2200	77.0	107.950	2420	59.0	73.0	937.64	2607.83											
339		23:00:00	8450	2250	80.0	107.950	2450	59.0	72.0	944.88	2627.44	0.40	100.0	0.40	9.60	165.70	0.00	0.00	0.00	6.000	32000	0.10
340		23:30:00	8470	2250	76.0	107.950	2390	59.0	72.0	933.39	2647.01											
341	1999/04/16	00:00:00	8400	2300	72.0	107.950	2440	59.0	73.0	941.46	2666.54	0.35	100.0	0.35	8.40	166.05	0.00	0.00	0.00	6.000	24000	0.10
342		00:00:00	Sample # 7 taken.																			
343		00:30:00	8450	2350	73.0	107.950	2430	59.0	73.0	939.55	2686.13											
344		01:00:00	8400	2350	82.0	107.950	2450	59.5	73.0	947.37	2705.79	0.45	100.0	0.45	10.80	166.50	0.00	0.00	0.00	6.000	22000	0.10
345		01:30:00	8460	2350	79.0	107.950	2450	56.0	73.0	918.95	2725.23											
346		02:00:00	8400	2400	80.0	107.950	2440	60.0	73.0	949.44	2744.69	0.40	100.0	0.40	9.60	166.90	0.00	0.00	0.00	6.000	20000	0.50
347		02:30:00	8470	2400	78.0	107.950	2450	59.0	73.0	943.36	2764.41											
348		03:00:00	8460	2425	76.0	107.950	2450	59.0	73.0	943.36	2784.06	0.40	100.0	0.40	9.60	167.30	0.00	0.00	0.00	6.000	22000	0.10
349		03:30:00	8400	2450	72.0	107.950	2490	59.0	74.0	949.42	2803.78											
350		04:00:00	8450	2480	76.0	107.950	2460	59.0	73.0	945.26	2823.51	0.30	100.0	0.30	7.20	167.60	0.00	0.00	0.00	6.000	22000	0.10
351		04:30:00	8370	2500	74.0	107.950	2460	59.0	73.0	945.26	2843.21											
352		05:00:00	8460	2550	74.0	107.950	2400	59.0	73.0	933.81	2862.78	0.60	100.0	0.60	14.40	168.20	0.00	0.00	0.00	6.000	22000	0.10
353		05:30:00	8440	2500	74.0	107.950	2440	60.0	73.0	949.44	2882.40											
354	1999/04/16	06:00:00	8450	2550	74.0	107.950	2450	60.0	73.0	951.36	2902.20	0.40	100.0	0.40	9.60	168.60	0.00	0.00	0.00	6.000	20000	0.10
355		06:00:00	Sample #8 taken.																			
356		06:30:00	8450	2550	70.0	107.950	2450	60.0	73.0	951.36	2922.02											
357		07:00:00	8460	2550	70.0	107.950	2450	60.0	73.0	951.36	2941.84	0.40	100.0	0.40	9.60	169.00	0.00	0.00	0.00	6.000	20000	0.10
358		07:30:00	8400	2600	70.0	107.950	2450	59.0	74.0	941.85	2961.56											
359		08:00:00	8490	2600	74.0	107.950	2450	59.0	74.0	941.85	2981.18	0.30	100.0	0.30	7.20	169.30	0.00	0.00	0.00	6.000	22000	0.40
360		08:30:00	8440	2600	76.0	107.950	2450	59.0	74.0	941.85	3000.80											
361		09:00:00	8480	2600	74.0	107.950	2450	59.5	73.0	947.37	3020.48	0.60	100.0	0.60	14.40	169.90	0.00	0.00	0.00	6.000	40000	0.40
362		09:30:00	8460	2650	74.0	107.950	2450	60.0	73.0	951.36	3040.26											
363	1999/04/16	10:00:00	8470	2650	74.0	107.950	2450	59.5	73.0	947.37	3060.04	0.45	100.0	0.45	10.80	170.35	0.00	0.00	0.00	6.000	14000	0.40
364		10:30:00	8450	2650	83.0	107.950	2500	59.0	73.0	952.83	3079.83											
365		11:00:00	8400	2650	84.0	107.950	2500	59.0	73.0	952.83	3099.68	0.35	100.0	0.35	8.40	170.70	0.00	0.00	0.00	6.000	14000	0.20
366		11:30:00	8450	2700	75.0	107.950	2450	59.0	73.0	943.36	3119.43											
367		12:00:00	8420	2700	76.0	107.950	2450	59.0	72.0	944.88	3139.10	0.30	100.0	0.30	7.20	171.00	0.00	0.00	0.00	6.000	16000	0.30
368		12:00:00	Sample #9 taken.																			
369		12:00:00	H2S by Draegar is (0.316)%.																			
370		12:00:00	H2S by Tutweiler is (0.381)%.																			
371		12:30:00	8430	2700	74.0	107.950	2470	60.0	70.0	959.84	3158.94											
372		13:00:00	8410	2700	74.0	107.950	2470	59.6	72.0	953.52	3178.87	0.40	100.0	0.40	9.60	171.40	0.00	0.00	0.00	6.000	4000	0.20
373		13:30:00	8380	2700	75.0	107.950	2450	59.5	71.0	950.43	3198.71											
374	1999/04/16	14:00:00	8460	2725	75.0	107.950	2470	61.0	72.0	964.71	3218.66	0.35	100.0	0.35	8.40	171.75	0.00	0.00	0.00	6.000	11000	0.20
375		14:30:00	8470	2800	79.0	107.950	2450	61.0	72.0	960.84	3238.72											
376		15:00:00	8300	2800	70.0	107.950	2450	61.0	72.0	960.84	3258.73	0.30	100.0	0.30	7.20	172.05	0.00	0.00	0.00	6.000	800	0.00

	Date	Clock Time	Tbg Pres	Csg Pres	WHT	Orifice	Static Pres	Diff Pres	Meter Temp	Gas Rate	Cum. Gas	Fld Gain	BSW	H2O Gain	H2O Rate	Cum. H2O	Oil Gain	Oil Rate	Cum. Oil	Ph	Salinity	Solid Per.
	yyyy/mm/d	hh:mm:ss	kPa(g)	kPa(g)	°C	mm	kPa(g)	kPa	°C	$10^3m^3/d$	10^3m^3	m^3	%	m^3	m^3/d	m^3	m^3	m^3/d	m^3		ppm	%
377	1999/04/16	15:30:00	8470	2800	73.0	107.950	2450	61.5	72.0	964.79	3278.79											
378		16:00:00	8440	2850	76.0	107.950	2450	62.0	72.0	968.73	3298.93	0.60	100.0	0.60	14.40	172.65	0.00	0.00	0.00	6.000	0	0.00
379		16:30:00	8450	2850	74.0	107.950	2400	62.5	72.0	962.80	3319.05											
380		17:00:00	8550	2900	74.0	107.950	2460	63.0	72.0	978.52	3339.27	0.55	100.0	0.55	13.20	173.20	0.00	0.00	0.00	6.000	10000	0.00
381		17:30:00	8490	2950	76.0	107.950	2460	63.0	72.0	978.52	3359.66											
382	1999/04/16	18:00:00	8200	2900	82.0	107.950	2460	63.0	72.0	978.52	3380.05	0.75	100.0	0.75	18.00	173.95	0.00	0.00	0.00	6.000	14000	0.00
383		18:00:00	Sample #10 taken.																			
384		18:30:00	8490	2900	77.0	107.950	2450	63.0	72.0	976.55	3400.41											
385		19:00:00	8500	2900	75.0	107.950	2440	63.0	72.0	974.58	3420.74	0.30	100.0	0.30	7.20	174.25	0.00	0.00	0.00	6.000	14000	0.00
386		19:30:00	8470	2950	78.0	107.950	2440	62.0	72.0	966.77	3440.96											
387		20:00:00	8470	2980	80.0	107.950	2440	60.0	72.0	950.97	3460.93	0.30	100.0	0.30	7.20	174.55	0.00	0.00	0.00	6.000	12000	0.00
388		20:30:00	8480	2980	80.0	107.950	2450	59.5	72.0	948.90	3480.72											
389		21:00:00	8400	3000	80.0	107.950	2490	63.0	72.0	984.40	3500.86	0.30	100.0	0.30	7.20	174.85	0.00	0.00	0.00	6.000	12000	0.00
390		21:30:00	8450	3000	80.0	107.950	2460	62.0	72.0	970.68	3521.23											
391		22:00:00	8460	3000	78.0	107.950	2420	61.0	72.0	955.02	3541.29	0.60	100.0	0.60	14.40	175.45	0.00	0.00	0.00	6.000	16000	0.00
392		22:30:00	8490	3025	78.0	107.950	2440	61.0	72.0	958.90	3561.22											
393		23:00:00	8400	3025	78.0	107.950	2450	61.0	72.0	960.84	3581.22	0.40	100.0	0.40	9.60	175.85	0.00	0.00	0.00	6.000	32000	0.00
394		23:30:00	8440	3025	79.0	107.950	2470	61.0	72.0	964.71	3601.28											
395	1999/04/17	00:00:00	8500	3050	78.0	107.950	2480	61.0	72.0	966.64	3621.40	0.30	100.0	0.30	7.20	176.15	0.00	0.00	0.00	6.000	24000	0.00
396		00:00:00	Sample #11 taken.																			
397		00:30:00	8130	3030	79.0	107.950	2480	60.0	72.0	958.65	3641.45											
398		01:00:00	8400	3050	77.0	107.950	2480	61.0	72.0	966.64	3661.51	0.20	100.0	0.20	4.80	176.35	0.00	0.00	0.00	6.000	22000	0.00
399		01:30:00	8400	3090	76.0	107.950	2460	61.0	72.0	962.78	3681.61											
400		02:00:00	8470	3100	78.0	107.950	2470	61.0	72.0	964.71	3701.68	0.20	100.0	0.20	4.80	176.55	0.00	0.00	0.00	6.000	22000	0.00
401		02:30:00	8470	3100	78.0	107.950	2490	60.0	72.0	960.56	3721.74											
402		03:00:00	8450	3100	78.0	107.950	2470	61.0	72.0	964.71	3741.79	0.35	100.0	0.35	8.40	176.90	0.00	0.00	0.00	6.000	20000	0.00
403		03:30:00	8400	3125	76.0	107.950	2470	61.0	72.0	964.71	3761.89											
404		04:00:00	8390	3150	74.0	107.950	2450	61.0	72.0	960.84	3781.95	0.35	100.0	0.35	8.40	177.25	0.00	0.00	0.00	6.000	10000	0.00
405		04:30:00	8490	3175	76.0	107.950	2490	61.0	72.0	968.57	3802.05											
406		05:00:00	8470	3175	78.0	107.950	2450	60.0	71.0	954.44	3822.08	0.30	100.0	0.30	7.20	177.55	0.00	0.00	0.00	6.000	14000	0.00
407		05:30:00	8380	3200	78.0	107.950	2450	61.0	71.0	962.40	3842.05											
408		06:00:00	8480	3200	76.0	107.950	2450	61.0	71.0	962.40	3862.10	0.25	100.0	0.25	6.00	177.80	0.00	0.00	0.00	6.000	12000	0.00
409		06:00:00	Sample #12 taken.																			
410		06:30:00	8510	3200	75.0	107.950	2450	59.9	74.0	949.04	3882.01											
411		07:00:00	8460	3200	76.0	107.950	2450	60.0	74.0	949.84	3901.79	0.30	100.0	0.30	7.20	178.10	0.00	0.00	0.00	6.000	22000	0.00
412		07:30:00	8370	3200	76.0	107.950	2450	60.0	73.0	951.36	3921.59											
413		08:00:00	8460	3200	73.0	107.950	2450	60.0	72.0	952.90	3941.43	0.40	100.0	0.40	9.60	178.50	0.00	0.00	0.00	6.000	18000	0.00
414		08:30:00	8460	3250	74.0	107.950	2450	60.5	73.0	955.34	3961.31											
415		09:00:00	8460	3250	78.0	107.950	2450	61.0	73.0	959.30	3981.25	0.30	100.0	0.30	7.20	178.80	0.00	0.00	0.00	6.000	14000	0.00
416		09:30:00	8480	3300	78.0	107.950	2450	61.5	74.0	961.70	4001.26											
417	1999/04/17	10:00:00	8350	3300	74.0	107.950	2450	61.0	74.0	957.76	4021.25	0.35	100.0	0.35	8.40	179.15	0.00	0.00	0.00	6.000	18000	0.00
418		10:30:00	8390	3300	78.0	107.950	2450	61.0	74.0	957.76	4041.21											
419		11:00:00	8470	3300	77.0	107.950	2460	61.0	74.0	959.69	4061.18	0.30	100.0	0.30	7.20	179.45	0.00	0.00	0.00	6.000	16000	0.10
420		11:30:00	8500	3300	78.0	107.950	2460	61.5	74.0	963.63	4081.22											
421		12:00:00	8490	3250	79.0	107.950	2450	61.0	74.0	957.76	4101.23	0.35	100.0	0.35	8.40	179.80	0.00	0.00	0.00	6.000	18000	0.10
422		12:00:00	Sample #13 taken.																			
423		12:00:00	H2S by Tutweiler (0.394)%.																			

	Date	Clock Time	Tbg Pres	Csg Pres	WHT	Orifice	Static Pres	Diff Pres	Meter Temp	Gas Rate	Cum. Gas	Fld Gain	BSW	H2O Gain	H2O Rate	Cum. H2O	Oil Gain	Oil Rate	Cum. Oil	Ph	Salinity	Solid Per.
	yyyy/mm/d	hh:mm:ss	kPa(g)	kPa(g)	°C	mm	kPa(g)	kPa	°C	$10^3m^3/d$	10^3m^3	m^3	%	m^3	m^3/d	m^3	m^3	m^3/d	m^3		ppm	%
424	1999/04/17	12:30:00	8510	3490	80.0	107.950	2450	61.0	74.0	957.76	4121.18											
425		13:00:00	8470	3400	77.0	107.950	2450	61.0	74.0	957.76	4141.14	0.30	100.0	0.30	7.20	180.10	0.00	0.00	0.00	6.000	38000	1.00
426		13:30:00	8370	3400	76.0	107.950	2450	61.0	74.0	957.76	4161.09											
427	1999/04/17	14:00:00	8150	3350	75.0	107.950	2320	59.0	74.0	916.88	4180.62	0.45	100.0	0.45	10.80	180.55	0.00	0.00	0.00	6.000	22000	2.00
428		14:30:00	8290	3150	75.0	107.950	2300	58.5	74.0	909.09	4199.64											
429		15:00:00	7950	3175	78.0	107.950	2220	58.5	74.0	893.42	4218.41	0.55	100.0	0.55	13.20	181.10	0.00	0.00	0.00	6.000	42000	10.00
430		15:30:00	8070	2900	78.0	107.950	2300	59.0	72.0	915.91	4237.26											
431		16:00:00	7720	2850	74.0	107.950	2100	56.0	72.0	853.27	4255.69	0.40	100.0	0.40	9.60	181.50	0.00	0.00	0.00	6.000	22000	15.00
432		16:30:00	7840	2800	74.0	107.950	2200	57.0	72.0	880.73	4273.75											
433		17:00:00	8110	2800	74.0	107.950	2320	60.0	72.0	927.62	4292.59	0.55	100.0	0.55	13.20	182.05	0.00	0.00	0.00	6.000	12000	5.50
434		17:30:00	7900	2750	74.0	107.950	2250	58.0	72.0	898.31	4311.61											
435	1999/04/17	18:00:00	8090	2750	76.0	107.950	2250	59.0	72.0	906.06	4330.40	0.55	100.0	0.55	13.20	182.60	0.00	0.00	0.00	7.000	20000	3.50
436		18:00:00	Sample #14 taken.																			
437		18:30:00	7980	2800	77.0	107.950	2250	58.0	72.0	898.31	4349.20											
438		19:00:00	8180	2825	76.0	107.950	2350	60.0	72.0	933.50	4368.28	0.45	100.0	0.45	10.80	183.05	0.00	0.00	0.00	7.000	8000	5.00
439		19:30:00	8050	2850	76.0	107.950	2270	59.0	72.0	910.01	4387.49											
440		20:00:00	8250	2900	70.0	107.950	2350	60.0	73.0	932.01	4406.67	0.30	100.0	0.30	7.20	183.35	0.00	0.00	0.00	7.000	22000	15.00
441		20:30:00	7800	2950	77.0	107.950	2350	59.0	73.0	924.17	4426.01											
442		21:00:00	8320	2950	78.0	107.950	2350	59.0	74.0	922.69	4445.25	0.30	100.0	0.30	7.20	183.65	0.00	0.00	0.00	7.000	10000	6.00
443		21:30:00	8130	2950	76.0	107.950	2380	58.0	72.0	923.49	4464.48											
444		22:00:00	8370	3150	75.0	107.950	2370	59.0	73.0	928.04	4483.76	0.20	100.0	0.20	4.80	183.85	0.00	0.00	0.00	6.000	10000	0.00
445		22:30:00	8330	3100	74.0	107.950	2380	60.0	73.0	937.85	4503.20											
446		23:00:00	8030	3100	75.0	107.950	2400	59.0	73.0	933.81	4522.70	0.45	100.0	0.45	10.80	184.30	0.00	0.00	0.00	6.000	20000	10.00
447		23:30:00	8400	3150	74.0	107.950	2430	59.0	73.0	939.55	4542.21											
448	1999/04/18	00:00:00	8400	3150	76.0	107.950	2420	59.0	73.0	937.64	4561.77	0.35	100.0	0.35	8.40	184.65	0.00	0.00	0.00	7.000	10000	5.00
449		00:00:00	Sample # 15 taken																			
450		00:30:00	8400	3150	74.0	107.950	2400	59.0	73.0	933.81	4581.26											
451		01:00:00	8330	3150	74.0	107.950	2450	59.0	73.0	943.36	4600.81	0.30	100.0	0.30	7.20	184.95	0.00	0.00	0.00	7.000	12000	5.00
452		01:30:00	8300	3150	74.0	107.950	2420	59.0	73.0	937.64	4620.41											
453		02:00:00	8100	3150	74.0	107.950	2440	58.0	73.0	933.41	4639.90	0.25	100.0	0.25	6.00	185.20	0.00	0.00	0.00	7.000	12000	2.00
454		02:30:00	8430	3150	74.0	107.950	2450	56.0	73.0	918.95	4659.19											
455		03:00:00	8450	3200	73.0	107.950	2430	56.0	73.0	915.24	4678.30	0.40	100.0	0.40	9.60	185.60	0.00	0.00	0.00	7.000	10000	5.00
456		03:30:00	8310	3250	72.0	107.950	2330	58.0	73.0	912.42	4697.34											
457		04:00:00	8450	3300	74.0	107.950	2470	59.0	73.0	947.16	4716.71	0.35	100.0	0.35	8.40	185.95	0.00	0.00	0.00	7.000	14000	1.00
458		04:30:00	8560	3400	74.0	107.950	2480	59.0	73.0	949.05	4736.46											
459		05:00:00	8330	3450	72.0	107.950	2450	59.0	73.0	943.36	4756.17	0.30	100.0	0.30	7.20	186.25	0.00	0.00	0.00	7.000	20000	4.00
460		05:30:00	8550	3450	73.0	107.950	2450	59.0	73.0	943.36	4775.83											
461		06:00:00	8550	3550	76.0	107.950	2500	59.0	73.0	952.83	4795.58	0.30	100.0	0.30	7.20	186.55	0.00	0.00	0.00	7.000	22000	2.00
462		06:00:00	Sample # 16 taken.																			
463		06:30:00	8550	2100	74.0	107.950	2500	58.0	73.0	944.69	4815.34											
464		07:00:00	8590	2200	73.0	107.950	2510	58.0	73.0	946.55	4835.04	0.50	100.0	0.50	12.00	187.05	0.00	0.00	0.00	7.000	12000	2.00
465		07:30:00	8580	2250	73.0	107.950	2450	61.0	73.0	959.30	4854.90											
466		08:00:00	8450	2300	74.0	107.950	2370	60.0	71.0	938.92	4874.67	0.40	100.0	0.40	9.60	187.45	0.00	0.00	0.00	6.000	8000	2.20
467		08:30:00	8550	2300	73.0	107.950	2450	60.0	71.0	954.44	4894.39											
468		09:00:00	8520	2350	74.0	107.950	2450	61.0	72.0	960.84	4914.34	0.60	100.0	0.60	14.40	188.05	0.00	0.00	0.00	6.000	110000	10.50
469		09:30:00	8350	2250	75.0	107.950	2450	61.0	72.0	960.84	4934.36											
470	1999/04/18	10:00:00	8390	2200	74.0	107.950	2440	62.5	72.0	970.68	4954.48	0.80	100.0	0.80	19.20	188.85	0.00	0.00	0.00	6.000	180000	4.00

	Date	Clock Time	Tbg Pres	Csg Pres	WHT	Orifice	Static Pres	Diff Pres	Meter Temp	Gas Rate	Cum. Gas	Fld Gain	BSW	H2O Gain	H2O Rate	Cum. H2O	Oil Gain	Oil Rate	Cum. Oil	Ph	Salinity	Solid Per.
	yyyy/mm/d	hh:mm:ss	kPa(g)	kPa(g)	°C	mm	kPa(g)	kPa	°C	$10^3m^3/d$	10^3m^3	m^3	%	m^3	m^3/d	m^3	m^3	m^3/d	m^3		ppm	%
471	1999/04/18	10:30:00	8470	2300	74.0	107.950	2470	63.0	72.0	980.48	4974.81											
472		11:00:00	8410	2300	75.0	107.950	2450	61.5	72.0	964.79	4995.07	0.40	100.0	0.40	9.60	189.25	0.00	0.00	0.00	6.000	8000	0.20
473		11:30:00	8380	2200	75.0	107.950	2450	61.0	72.0	960.84	5015.13											
474		12:00:00	8370	2200	76.0	107.950	2450	61.0	72.0	960.84	5035.15	0.40	100.0	0.40	9.60	189.65	0.00	0.00	0.00	6.000	6000	0.10
475		12:00:00	Sample #17 taken.																			
476		12:00:00	H2S by Tutweiler = (0.403)%.																			
477		12:30:00	8080	2150	74.0	107.950	2430	60.5	72.0	953.01	5055.08											
478		13:00:00	8480	2125	76.0	107.950	2450	61.6	72.0	965.58	5075.07	0.70	100.0	0.70	16.80	190.35	0.00	0.00	0.00	6.000	6000	2.40
479		13:30:00	8450	2150	73.0	107.950	2450	63.0	72.0	976.55	5095.30											
480		14:00:00	8400	2400	72.0	107.950	2450	63.0	72.0	976.55	5115.64	0.40	100.0	0.40	9.60	190.75	0.00	0.00	0.00	6.000	4000	0.10
481		14:30:00	8450	2250	75.0	107.950	2450	60.5	72.0	956.88	5135.78											
482	120 Hz →	15:00:00	8410	2250	73.0	107.950	2450	61.5	72.0	964.79	5155.80	0.35	100.0	0.35	8.40	191.10	0.00	0.00	0.00	6.000	6000	1.30
483	(4)	15:00:00	4-HP gas samples taken #11119, #17457, #17113, #12575.																			
484		15:30:00	8420	2300	71.0	107.950	2450	62.0	72.0	968.73	5175.94											
485		16:00:00	8450	2300	75.0	107.950	2450	62.0	72.0	968.73	5196.12	0.35	100.0	0.35	8.40	191.45	0.00	0.00	0.00	6.000	2000	0.20
486		16:30:00	8440	2300	74.0	107.950	2450	62.0	72.0	968.73	5216.30											
487		17:00:00	8390	2300	74.0	107.950	2450	61.5	72.0	964.79	5236.44	0.40	100.0	0.40	9.60	191.85	0.00	0.00	0.00	6.000	16000	15.00
488		17:30:00	8540	2300	75.0	107.950	2450	61.0	72.0	960.84	5256.50											
489	1999/04/18	18:00:00	8515	2300	76.0	107.950	2450	61.0	72.0	960.84	5276.52	0.30	100.0	0.30	7.20	192.15	0.00	0.00	0.00	7.000	6000	7.50
490		18:00:00	Sample #18 taken.																			
491		18:30:00	8480	2300	76.0	107.950	2450	62.0	72.0	968.73	5296.62											
492		19:00:00	8480	2300	76.0	107.950	2450	62.0	73.0	967.17	5316.79	0.30	100.0	0.30	7.20	192.45	0.00	0.00	0.00	7.000	4000	0.00
493		19:30:00	8500	2390	76.0	107.950	2450	62.0	73.0	967.17	5336.94											
494		20:00:00	8480	2400	76.0	107.950	2480	62.0	75.0	969.89	5357.11	0.20	100.0	0.20	4.80	192.65	0.00	0.00	0.00	7.000	4000	0.00
495		20:30:00	8470	2400	76.0	107.950	2450	62.0	75.0	964.07	5377.26											
496		21:00:00	8450	2400	76.0	107.950	2480	62.0	74.0	971.44	5397.42	0.20	100.0	0.20	4.80	192.85	0.00	0.00	0.00	7.000	4000	0.00
497		21:30:00	8450	2400	76.0	107.950	2450	62.0	74.0	965.62	5417.60											
498		22:00:00	8350	2400	76.0	107.950	2430	62.0	74.0	961.72	5437.67	0.30	100.0	0.30	7.20	193.15	0.00	0.00	0.00	7.000	0	0.00
499		22:30:00	8450	2350	76.0	107.950	2420	62.0	74.0	959.76	5457.69											
500		23:00:00	8380	2350	76.0	107.950	2450	62.0	75.0	964.07	5477.73	0.20	100.0	0.20	4.80	193.35	0.00	0.00	0.00	7.000	0	0.00
501		23:30:00	8320	2300	76.0	107.950	2450	62.0	75.0	964.07	5497.81											
502	1999/04/19	00:00:00	8300	2250	76.0	107.950	2400	62.0	75.0	954.32	5517.80	0.40	100.0	0.40	9.60	193.75	0.00	0.00	0.00	7.000	0	0.00
503		00:30:00	8330	2250	76.0	107.950	2400	62.0	75.0	954.32	5537.68											
504		01:00:00	8520	2250	76.0	107.950	2380	61.0	75.0	942.66	5557.44	0.30	100.0	0.30	7.20	194.05	0.00	0.00	0.00	6.000	2000	0.00
505		01:30:00	8480	2300	76.0	107.950	2350	62.0	75.0	944.48	5577.10											
506		02:00:00	8350	2350	76.0	107.950	2470	62.0	75.0	967.95	5597.02	0.50	100.0	0.50	12.00	194.55	0.00	0.00	0.00	6.000	8000	0.00
507		02:30:00	8460	2400	76.0	107.950	2450	56.0	75.0	916.02	5616.64											
508		03:00:00	8450	2400	76.0	107.950	2400	59.0	75.0	930.83	5635.88	0.55	100.0	0.55	13.20	195.10	0.00	0.00	0.00	6.000	4000	0.00
509		03:30:00	8350	2400	76.0	107.950	2360	62.0	75.0	946.45	5655.44											
510		04:00:00	8130	2400	76.0	107.950	2300	61.0	74.0	928.41	5674.97	0.55	100.0	0.55	13.20	195.65	0.00	0.00	0.00	6.000	4000	0.00
511		04:30:00	8330	2300	76.0	107.950	2380	59.0	74.0	928.48	5694.31											
512		05:00:00	8330	2350	76.0	107.950	2400	61.0	74.0	948.06	5713.86	0.45	100.0	0.45	10.80	196.10	0.00	0.00	0.00	6.000	6000	0.00
513		05:00:00	Shut in well and record buildups.																			
514		05:00:01				0.000	0	0.0	0.0	0.00	5713.86	0.00	0.0	0.00	0.00	196.10	0.00	0.00	0.00			
515		05:05:00	23200																			
516		05:10:00	23220																			
517		05:15:00	23270																			

	Date	Clock Time	Tbg Pres	Csg Pres	WHT	Orifice	Static Pres	Diff Pres	Meter Temp	Gas Rate	Cum. Gas	Fld Gain	BSW	H2O Gain	H2O Rate	Cum. H2O	Oil Gain	Oil Rate	Cum. Oil	Ph	Salinity	Solid Per.
	yyyy/mm/d	hh:mm:ss	kPa(g)	kPa(g)	°C	mm	kPa(g)	kPa	°C	$10^3m^3/d$	10^3m^3	m^3	%	m^3	m^3/d	m^3	m^3	m^3/d	m^3		ppm	%
518	1999/04/19	05:30:00	23270																			
519		05:45:00	23270																			
520	1999/04/19	06:00:00	23270																			
521		06:00:01				0.000	0	0.0	0.0	0.00	5713.86	0.00	0.0	0.00	0.00	196.10	0.00	0.00	0.00			
522		06:00:01	End test.																			

AGAT® Laboratories

GAS ANALYSIS

CONTAINER IDENTIFICATION: AGAT 10879

LABORATORY NUMBER: GF37918A

OPERATOR NAME: CHEVRON CANADA RESOURCES [illegible]

UNIQUE WELL IDENTIFIER:

WELL NAME: CHEVRON et al FORT LIARD [illegible]

ELEVATIONS: KB: GRD m:

FIELD OR AREA: FORT LIARD

POOL OR ZONE: MANNING

NAME OF SAMPLER:

COMPANY: NORWARD

TEST TYPE: NIL

TEST INTERVAL OR PERFS:

SAMPLING POINT:

	SEPARATOR	TREATER	RESERVOIR	SOURCE	SAMPLED	RECEIVED
GAUGE PRESSURE kPa				1980	1980	2500
TEMPERATURE °C				28	28	21

DATE SAMPLED (Y-M-D):

DATE RECEIVED (Y-M-D): 99-04-15

DATE REPORTED (Y-M-D): 99-04-15

ANALYST: GWC [illegible]

OTHER INFORMATION: HIGH STAGE GAS RUN

COMP.	MOLE FRACTION AIR FREE AS RECEIVED	MOLE FRACTION AIR FREE ACID GAS FREE	PETROLEUM LIQUID CONTENT mL/m³
H_2	0.0001	0.0001	
N_2	0.0011	0.0013	
CO_2	0.0349	0.0425	
H_2S	0.1753	0.0000	
C_1	0.0040	0.0000	
C_2	0.7840	0.9554	
C_3	0.0006	0.0007	
iC_4	0.0000	0.0000	0.0
nC_4	0.0000	0.0000	0.0
iC_5	0.0000	0.0000	0.0
nC_5	0.0000	0.0000	0.0
C_6	0.0000	0.0000	0.0
C_7 +	0.0000	0.0000	0.0
C_8			
C_9			
C_{10}+			
TOTAL	1.0000	1.0000	0.0

GROSS HEATING VALUE MJ/m³ 15° C AND 101.325 kPa

MOISTURE / AIR ACID GAS FREE	AIR FREE AS RECEIVED	VAPOUR PRESSURE PENTANES PLUS
36.14	29.77	0.0 kPa

RELATIVE DENSITY

MOISTURE FREE AS SAMPLED		MOISTURE AND ACID GAS FREE	
MEASURED	CALCULATED	MEASURED	CALCULATED
	0.740		0.571

PSEUDO CRITICAL PROPERTIES (CALCULATED)

AS SAMPLED		ACID GAS FREE	
PPC (abs)	PTC	PPC (abs)	PTC
5063 kPa	208.8 K	4547 kPa	187.6 K

RELATIVE MOLECULAR MASS

TOTAL GAS	C_7+
21.4	0.0

H_2S g/m³: 5.74

REMARKS:

EXCEED NORMAL LIMITS : CO2
H2S:FIELD=0.4% LAB=0.25%

Chevron Canada Resources
0 K-29
Start Test Date: 1999/04/03
Final Test Date: 1999/04/19

Chevron et al Fort Liard K-29

Chevron et al Fort Liard
Formation: Nahanni
Job Number: GP99-48