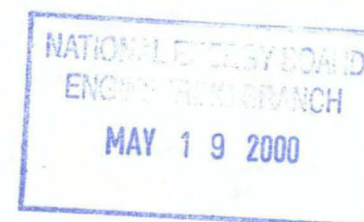




Baker Atlas

**Customer:** Ranger Oil Limited**Wellname:** Ranger Ft. Liard**Well Location:** P-66-A**Test Dates:** July 30 - Aug 09, 1999**Formation:** TIGHT HOLE**File Name:** GP99-085, RANGER04.FLD**Supervisors:** B. Metcalf**Customer Reps:** Wayne Casler**Test Unit/Tank:** TU#29**Test Type:** Multi Rate TestMICROFILMED
SUB MICROFILM:

Final Edited Copy

GENERAL INFORMATION

Client Information:

Company: Ranger Oil Limited

Contact: Leroy Brown

Phone: 1-600-700-5696 Fax: e-mail:

Site Information:

Contact: Wayne Casler

Phone: Fax: e-mail:

Well Information:

Name: Ranger Ft.Liard

Operator: Ranger Oil

Location-Downhole: P-66-A

Location-Surface:

Test Information:

Company: Norward Energy Services

Representative: Paul Ringrose

Supervisor: Bill Metcalf

Test Type: Multi-Rate Test

Job Number: GP99-085

Test Unit: T.U.#29

Start Date: 1999/07/30

Start Time: 09:00:00

End Date: 1999/08/09

End Time: 18:00:00

Report Date: 1999/09/01

Prepared By: C. Brunt

Remarks:

Qualified By:

Ranger Oil Limited

P-66-A

Start Test Date: 1999/07/30

Final Test Date: 1999/08/09

FieldNotes

Ranger Ft.Liard

Job Number: GP99-085

Gas Meter 1

Meter Type:

Meter Size:

Previous Gas Production:

Tap Type:

Tap Location:

Orifice Meter

147.07 mm

0.000 10³m³

Flange

Downstream

Gas Gravity (G):

0.742

CO₂:

16.95 %

H₂S:

0.45 %

N₂:

5.32 %

Critical Temperature (T_c):

207.00 K

Critical Pressure (P_c):

5026.00 kPa

Oil Meter 1

Meter Type:

Measurement Type:

Columns for Produced Volume:

Previous Oil Production:

Previous Water Production:

Produced Volume

Incremental

0.000 m³

0.000 m³

Water Meter 1

Meter Type:

Measurement type:

Columns for Produced Volume:

Previous Water Production:

Produced Volume

Incremental

0.000 m³

FieldNotes Field Measurements

	Clock	Tbg	Csg	Choke	Static	Diff	Meter	Gas	Cum.	Fid	H2O	H2O	Cum	Oil	Oil	Cum.	Ph	Salinity
Date	Time	Pres	Pres	WHT	Orifice	Pres	Pres	Temp	Rate	Gas	Gain	BSW	Gain	Rate	H2O	Gain	Rate	Oil
yyyy/mm/ddh:mm:ss		kPa(g)	kPa(g)	°C	mm	mm	kPa(g)	kPa	°C	10 ³ m ³ /d	10 ³ m ³	m ³	%	m ³	m ³ /d	m ³	m ³	m ³ /d
95	1999/07/31	20:30:00	9990	0	84	30.16	101.60	3350	44.0	76	808.069	873.154	0.35	100	0.35	16.80	27.86	0.000
96		21:00:00	9990	0	84	30.16	101.60	3350	44.0	76	808.069	889.989	0.25	100	0.25	12.00	28.11	0.000
97		21:01:00	Rate # 4 = Decrease choke to 20.64mm.															
98		21:05:00	13750	0														
99		21:06:00	Decrease back pressure.															
100		21:10:00	13930	0														
101		21:15:00	14040	0														
102		21:30:00	14150	0	85	20.64	101.60	2600	40.0	67	688.765	905.581	0.30	100	0.30	14.40	28.41	0.000
103		21:45:00	14150	0														
104		22:00:00	14160	0	85	20.64	101.60	2600	40.0	64	692.211	919.966	0.30	100	0.30	14.40	28.71	0.000
105		22:30:00	14160	0	85	20.64	101.60	2600	39.9	64	691.342	934.378	0.20	100	0.20	9.60	28.91	0.000
106		23:00:00	14160	0	85	20.64	101.60	2600	39.9	64	691.342	948.781	0.35	100	0.35	16.80	29.28	0.000
107		23:30:00	14160	0	85	20.64	101.60	2600	39.9	64	691.342	963.184	0.30	100	0.30	14.40	29.58	0.000
108	1999/08/01	00:00:00	14160	0	85	20.64	101.60	2600	39.9	64	691.342	977.587	0.35	100	0.35	16.80	29.91	0.000
109		00:30:00	14160	0	85	20.64	101.60	2600	39.9	64	691.342	991.990	0.30	100	0.30	14.40	30.21	0.000
110		01:00:00	14160	0	85	20.64	101.60	2600	39.9	64	691.342	1006.393	0.30	100	0.30	14.40	30.51	0.000
111		01:30:00	14160	0	85	20.64	101.60	2600	39.9	64	691.342	1020.796	0.30	100	0.30	14.40	30.81	0.000
112		02:00:00	14160	0	85	20.64	101.60	2600	39.9	64	691.342	1035.199	0.35	100	0.35	16.80	31.16	0.000
113		02:30:00	14160	0	85	20.64	101.60	2600	39.9	64	691.342	1049.602	0.35	100	0.35	16.80	31.51	0.000
114		03:00:00	14160	0	85	20.64	101.60	2600	39.9	64	691.342	1064.005	0.25	100	0.25	12.00	31.76	0.000
115		03:30:00	14160	0	85	20.64	101.60	2600	39.9	64	691.342	1078.408	0.35	100	0.35	16.80	32.11	0.000
116		04:00:00	14170	0	85	20.64	101.60	2600	39.9	64	691.342	1092.811	0.40	100	0.40	19.20	32.51	0.000
117		04:30:00	14170	0	85	20.64	101.60	2600	39.9	64	691.342	1107.214	0.25	100	0.25	12.00	32.76	0.000
118		05:00:00	14170	0	85	20.64	101.60	2600	39.9	64	691.342	1121.617	0.45	100	0.45	21.60	33.21	0.000
119		05:30:00	14170	0	85	20.64	101.60	2600	39.9	64	691.342	1136.020	0.35	100	0.35	16.80	33.56	0.000
120	1999/08/01	06:00:00	14170	0	85	20.64	101.60	2600	39.9	64	691.342	1150.423	0.25	100	0.25	12.00	33.81	0.000
121		06:30:00	14170	0	86	20.64	101.60	2600	39.9	64	691.342	1164.826	0.30	100	0.30	14.40	34.11	0.000
122		07:00:00	14170	0	86	20.64	101.60	2600	39.9	64	691.342	1179.229	0.35	100	0.35	16.80	34.46	0.000
123		07:30:00	14170	0	87	20.64	101.60	2600	40.0	64	692.211	1193.641	0.30	100	0.30	14.40	34.76	0.000
124		08:00:00	14170	0	87	20.64	101.60	2600	40.0	64	692.211	1208.062	0.30	100	0.30	14.40	35.06	0.000
125		08:30:00	14180	0	87	20.64	101.60	2600	40.0	64	692.211	1222.483	0.35	100	0.35	16.80	35.41	0.000
126		09:00:00	14190	0	88	20.64	101.60	2550	39.9	64	684.695	1236.825	0.30	100	0.30	14.40	35.71	0.000
127		09:30:00	14190	0	88	20.64	101.60	2550	39.9	64	684.695	1251.090	0.30	100	0.30	14.40	36.01	0.000
128	1999/08/01	10:00:00	14190	0	88	20.64	101.60	2550	39.9	64	684.695	1265.354	0.30	100	0.30	14.40	36.31	0.000
129		10:30:00	14190	0	88	20.64	101.60	2550	39.9	64	684.695	1279.619	0.25	100	0.25	12.00	36.56	0.000
130		11:00:00	14190	0	88	20.64	101.60	2550	39.9	64	684.695	1293.883	0.50	100	0.50	24.00	37.06	0.000
131		11:30:00	14190	0	88	20.64	101.60	2550	39.9	64	684.695	1308.148	0.20	100	0.20	9.60	37.26	0.000
132		12:00:00	14190	0	88	20.64	101.60	2550	39.9	64	684.695	1322.412	0.30	100	0.30	14.40	37.56	0.000
133		12:30:00	14190	0	84	20.64	101.60	2550	39.9	64	684.695	1336.677	0.45	100	0.45	21.60	38.01	0.000
134		13:00:00	14190	0	84	20.64	101.60	2550	39.9	64	684.695	1350.941	0.25	100	0.25	12.00	38.26	0.000
135		13:30:00	14180	0	84	20.64	101.60	2550	39.9	64	684.695	1365.209	0.30	100	0.30	14.40	38.56	0.000
136	1999/08/01	14:00:00	14180	0	84	20.64	101.60	2550	39.9	64	684.695	1379.476	0.30	100	0.30	14.40	38.86	0.000
137		14:30:00	14170	0	84	20.64	101.60	2550	39.9	64	684.695	1393.740	0.30	100	0.30	14.40	39.16	0.000
138		15:00:00	14170	0	84	20.64	101.60	2550	39.9	64	684.695	1408.005	0.35	100	0.35	16.80	39.51	0.000
139		15:30:00	14170	0	84	20.64	101.60	2550	39.9	64	684.695	1422.269	0.35	100	0.35	16.80	39.86	0.000
140		16:00:00	14150	0	84	20.64	101.60	2550	39.9	64	684.695	1436.534	0.30	100	0.30	14.40	40.16	0.000
141		16:30:00	14150	0	84	20.64	101.60	2550	39.9	64	684.695	1450.798	0.44	100	0.44	21.12	40.60	0.000

FieldNotes Field Measurements

	Clock	Tbg	Csg		Choke		Static	Diff	Meter	Gas	Cum.			H2O	H2O	Cum	Oil	Oil	Cum.			
Date	Time	Pres	Pres	WHT		Orifice	Pres	Pres	Temp	Rate	Gas	Gain	BSW	Gain	Rate	H2O	Gain	Rate	Oil	Ph	Salinity	
yyyy/mm/ddh:mm:ss		kPa(g)	kPa(g)	°C	mm	mm	kPa(g)	kPa	°C	10 ³ m ³ /d	10 ³ m ³	m ³	%	m ³	m ³ /d	m ³	m ³	m ³ /d	m ³		ppm	
142	1999/08/01	17:00:00	14150	0	85	20.64	101.60	2550	39.9	64	684.695	1465.063	0.35	100	0.35	16.80	40.95	0.000	0.000	0.000	5	72000
143		17:30:00	14150	0	84	20.64	101.60	2550	39.9	64	684.695	1479.327	0.15	100	0.15	7.20	41.10	0.000	0.000	0.000	5	72000
144	1999/08/01	18:00:00	14150	0	84	20.64	101.60	2550	39.9	64	684.695	1493.592	0.70	100	0.70	33.60	41.80	0.000	0.000	0.000	5	72000
145		18:30:00	14150	0	84	20.64	101.60	2550	39.9	65	683.555	1507.844	0.15	100	0.15	7.20	41.95	0.000	0.000	0.000	5	66000
146		19:00:00	14150	0	84	20.64	101.60	2550	39.9	65	683.555	1522.085	0.15	100	0.15	7.20	42.10	0.000	0.000	0.000	5	68000
147		19:30:00	14150	0	84	20.64	101.60	2550	39.9	65	683.555	1536.326	0.40	100	0.40	19.20	42.50	0.000	0.000	0.000	5	70000
148		20:00:00	14150	0	85	20.64	101.60	2550	39.9	65	683.555	1550.566	0.20	100	0.20	9.60	42.70	0.000	0.000	0.000	5	96000
149		20:30:00	14150	0	83	20.64	101.60	2550	39.9	65	683.555	1564.807	0.30	100	0.30	14.40	43.00	0.000	0.000	0.000	5	58000
150		21:00:00	14150	0	84	20.64	101.60	2550	39.9	65	683.555	1579.048	0.30	100	0.30	14.40	43.30	0.000	0.000	0.000	5	56000
151		21:30:00	14150	0	84	20.64	101.60	2550	39.9	65	683.555	1593.289	0.20	100	0.20	9.60	43.50	0.000	0.000	0.000	5	50000
152		22:00:00	14150	0	84	20.64	101.60	2550	39.9	65	683.555	1607.529	0.60	100	0.60	28.80	44.10	0.000	0.000	0.000	5	46000
153		22:30:00	14150	0	85	20.64	101.60	2550	39.9	65	683.555	1621.770	0.25	100	0.25	12.00	44.35	0.000	0.000	0.000	5	48000
154		23:00:00	14150	0	86	20.64	101.60	2550	39.9	65	683.555	1636.011	0.25	100	0.25	12.00	44.60	0.000	0.000	0.000	5	50000
155		23:30:00	14150	0	85	20.64	101.60	2550	39.9	65	683.555	1650.252	0.30	100	0.30	14.40	44.90	0.000	0.000	0.000	5	50000
156	1999/08/02	00:00:00	14150	0	85	20.64	101.60	2550	39.9	65	683.555	1664.492	0.40	100	0.40	19.20	45.30	0.000	0.000	0.000	5	48000
157		00:30:00	14150	0	85	20.64	101.60	2550	39.9	65	683.555	1678.733	0.20	100	0.20	9.60	45.50	0.000	0.000	0.000	5	54000
158		01:00:00	14150	0	85	20.64	101.60	2550	39.9	65	683.555	1692.974	0.35	100	0.35	16.80	45.85	0.000	0.000	0.000	5	56000
159		01:30:00	14150	0	85	20.64	101.60	2550	39.9	65	683.555	1707.214	0.30	100	0.30	14.40	46.15	0.000	0.000	0.000	5	54000
160		02:00:00	14150	0	85	20.64	101.60	2550	39.9	65	683.555	1721.455	0.40	100	0.40	19.20	46.55	0.000	0.000	0.000	5	50000
161		02:30:00	14150	0	86	20.64	101.60	2550	39.9	65	683.555	1735.696	0.20	100	0.20	9.60	46.75	0.000	0.000	0.000	5	58000
162		03:00:00	14150	0	86	20.64	101.60	2550	39.9	65	683.555	1749.937	0.30	100	0.30	14.40	47.05	0.000	0.000	0.000	5	64000
163		03:30:00	14150	0	86	20.64	101.60	2550	39.9	65	683.555	1764.177	0.30	100	0.30	14.40	47.35	0.000	0.000	0.000	5	58000
164		04:00:00	14150	0	86	20.64	101.60	2550	39.9	65	683.555	1778.418	0.35	100	0.35	16.80	47.70	0.000	0.000	0.000	5	64000
165		04:30:00	14150	0	86	20.64	101.60	2550	39.9	65	683.555	1792.659	0.35	100	0.35	16.80	48.05	0.000	0.000	0.000	5	56000
166		05:00:00	14150	0	86	20.64	101.60	2550	39.9	65	683.555	1806.900	0.15	100	0.15	7.20	48.20	0.000	0.000	0.000	5	58000
167		05:30:00	14150	0	86	20.64	101.60	2550	39.9	65	683.555	1821.140	0.35	100	0.35	16.80	48.55	0.000	0.000	0.000	5	54000
168	1999/08/02	06:00:00	14150	0	86	20.64	101.60	2550	39.9	65	683.555	1835.381	0.30	100	0.30	14.40	48.85	0.000	0.000	0.000	5	56000
169		06:00:00	H2S by kitagawa = 1.0%.																			
170		06:30:00	14150	0	86	20.64	101.60	2550	39.9	65	683.555	1849.622	0.25	100	0.25	12.00	49.10	0.000	0.000	0.000	5	50000
171		07:00:00	14150	0	86	20.64	101.60	2550	39.9	64	684.695	1863.874	0.20	100	0.20	9.60	49.30	0.000	0.000	0.000	5	52000
172		07:30:00	14150	0	86	20.64	101.60	2550	39.9	64	684.695	1878.139	0.30	100	0.30	14.40	49.60	0.000	0.000	0.000	5	54000
173		08:00:00	14140	0	87	20.64	101.60	2550	39.9	64	684.695	1892.403	0.30	100	0.30	14.40	49.90	0.000	0.000	0.000	5	58000
174		08:30:00	14140	0	88	20.64	101.60	2550	39.9	64	684.695	1906.668	0.30	100	0.30	14.40	50.20	0.000	0.000	0.000	5	58000
175		09:00:00	14150	0	88	20.64	101.60	2550	39.9	64	684.695	1920.932	0.25	100	0.25	12.00	50.45	0.000	0.000	0.000	5	58000
176		09:30:00	14150	0	88	20.64	101.60	2550	39.9	65	683.555	1935.185	0.35	100	0.35	16.80	50.80	0.000	0.000	0.000	5	54000
177	1999/08/02	10:00:00	14150	0	88	20.64	101.60	2550	39.9	65	683.555	1949.426	0.25	100	0.25	12.00	51.05	0.000	0.000	0.000	5	50000
178		10:30:00	14150	0	88	20.64	101.60	2550	39.9	65	683.555	1963.666	0.35	100	0.35	16.80	51.40	0.000	0.000	0.000	5	52000
179		11:00:00	14150	0	88	20.64	101.60	2550	39.9	66	682.422	1977.895	0.40	100	0.40	19.20	51.80	0.000	0.000	0.000	5	52000
180		11:30:00	14150	0	88	20.64	101.60	2550	39.9	64	684.695	1992.136	0.30	100	0.30	14.40	52.10	0.000	0.000	0.000	5	64000
181		12:00:00	14150	40	88	20.64	101.60	2550	39.9	64	684.695	2006.401	0.40	100	0.40	19.20	52.50	0.000	0.000	0.000	5	72000
182		12:30:00	14130	40	88	20.64	101.60	2550	39.9	65	683.555	2020.653	0.20	100	0.20	9.60	52.70	0.000	0.000	0.000	5	98000
183		13:00:00	14130	40	88	20.64	101.60	2550	39.9	68	680.174	2034.859	0.30	100	0.30	14.40	53.00	0.000	0.000	0.000	5	112000
184		13:30:00	14130	0	88	20.64	101.60	2550	39.9	67	681.294	2049.041	0.10	100	0.10	4.80	53.10	0.000	0.000	0.000	5	110000
185	1999/08/02	14:00:00	14140	0	88	20.64	101.60	2550	39.9	67	681.294	2063.234	0.40	100	0.40	19.20	53.50	0.000	0.000	0.000	5	100000
186		14:30:00	14140	0	88	20.64	101.60	2550	39.9	68	680.174	2077.416	0.30	100	0.30	14.40	53.80	0.000	0.000	0.000	5	108000
187		15:00:00	14140	0	88	20.64	101.60	2550	39.9	68	680.174	2091.587	0.25	100	0.25	12.00	54.05	0.000	0.000	0.000	5	112000
188		15:30:00	14140	0	88	20.64	101.60	2550	39.9	67	681.294	2105.769	0.15	100	0.15	7.20	54.20	0.000	0.000	0.000	5	112000

FieldNotes Field Measurements

	Clock	Tbg	Csg	Choke	Static	Diff	Meter	Gas	Cum.	Fld	H2O	H2O	Cum	Oil	Oil	Cum.						
Date	Time	Pres	Pres	WHT	Orifice	Pres	Pres	Temp	Rate	Gas	Gain	BSW	Gain	Rate	H2O	Gain	Rate	Oil	Ph	Salinity		
yyyy/mm/dhh:mm:ss	kPa(g)	kPa(g)	°C	mm	mm	kPa(g)	kPa	°C	10 ³ m ³ /d	10 ³ m ³	m ³	%	m ³	m ³ /d	m ³	m ³ /d	m ³		ppm			
189	1999/08/02	16:00:00	14140	0	88	20.64	101.60	2550	39.9	66	682.422	2119.974	0.40	100	0.40	19.20	54.60	0.000	0.000	0.000	5	110000
190		16:30:00	14140	0	87	20.64	101.60	2550	39.9	66	682.422	2134.191	0.30	100	0.30	14.40	54.90	0.000	0.000	0.000	5	112000
191		17:00:00	14140	0	87	20.64	101.60	2550	39.9	66	682.422	2148.408	0.35	100	0.35	16.80	55.25	0.000	0.000	0.000	5	112000
192		17:30:00	14140	0	87	20.64	101.60	2550	39.9	66	682.422	2162.625	0.30	100	0.30	14.40	55.55	0.000	0.000	0.000	5	106000
193	1999/08/02	18:00:00	14140	0	86	20.64	101.60	2550	39.9	66	682.422	2176.842	0.44	100	0.44	21.12	55.99	0.000	0.000	0.000	5	98000
194		18:30:00	14140	0	86	20.64	101.60	2550	39.9	66	682.422	2191.060	0.25	100	0.25	12.00	56.24	0.000	0.000	0.000	5	96000
195		19:00:00	14120	0	86	20.64	101.60	2580	39.9	66	686.400	2205.318	0.25	100	0.25	12.00	56.49	0.000	0.000	0.000	5	100000
196		19:30:00	14120	0	86	20.64	101.60	2580	39.9	66	686.400	2219.618	0.40	100	0.40	19.20	56.89	0.000	0.000	0.000	5	118000
197		20:00:00	14120	0	86	20.64	101.60	2580	39.9	66	686.400	2233.918	0.30	100	0.30	14.40	57.19	0.000	0.000	0.000	5	96000
198		20:30:00	14120	0	86	20.64	101.60	2580	39.9	66	686.400	2248.218	0.30	100	0.30	14.40	57.49	0.000	0.000	0.000	5	94000
199		21:00:00	14120	0	87	20.64	101.60	2580	39.9	67	685.265	2262.506	0.25	100	0.25	12.00	57.74	0.000	0.000	0.000	5	112000
200		21:30:00	14120	0	87	20.64	101.60	2580	39.9	67	685.265	2276.783	0.30	100	0.30	14.40	58.04	0.000	0.000	0.000	5	102000
201		22:00:00	14120	0	87	20.64	101.60	2580	39.9	67	685.265	2291.059	0.25	100	0.25	12.00	58.29	0.000	0.000	0.000	5	100000
202		22:30:00	14120	0	87	20.64	101.60	2580	39.9	67	685.265	2305.335	0.30	100	0.30	14.40	58.59	0.000	0.000	0.000	5	90000
203		23:00:00	14120	0	86	20.64	101.60	2580	39.9	67	685.265	2319.612	0.40	100	0.40	19.20	58.99	0.000	0.000	0.000	5	74000
204		23:30:00	14120	0	86	20.64	101.60	2580	39.9	67	685.265	2333.888	0.40	100	0.40	19.20	59.39	0.000	0.000	0.000	5	74000
205	1999/08/03	00:00:00	14120	0	86	20.64	101.60	2580	39.9	66	686.400	2348.176	0.25	100	0.25	12.00	59.64	0.000	0.000	0.000	5	50000
206		00:30:00	14120	0	86	20.64	101.60	2580	39.9	66	686.400	2362.476	0.30	100	0.30	14.40	59.94	0.000	0.000	0.000	5	58000
207		01:00:00	14120	0	86	20.64	101.60	2580	39.9	66	686.400	2376.776	0.30	100	0.30	14.40	60.24	0.000	0.000	0.000	5	62000
208		01:30:00	14120	0	86	20.64	101.60	2580	39.9	66	686.400	2391.076	0.35	100	0.35	16.80	60.59	0.000	0.000	0.000	5	58000
209		02:00:00	14120	0	86	20.64	101.60	2580	39.9	66	686.400	2405.376	0.30	100	0.30	14.40	60.89	0.000	0.000	0.000	5	52000
210		02:30:00	14120	0	86	20.64	101.60	2580	39.9	66	686.400	2419.676	0.25	100	0.25	12.00	61.14	0.000	0.000	0.000	5	50000
211		03:00:00	14120	0	86	20.64	101.60	2580	39.9	66	686.400	2433.976	0.20	100	0.20	9.60	61.34	0.000	0.000	0.000	5	62000
212		03:30:00	14120	0	86	20.64	101.60	2580	39.9	66	686.400	2448.276	0.35	100	0.35	16.80	61.69	0.000	0.000	0.000	5	58000
213		04:00:00	14120	0	86	20.64	101.60	2580	39.9	66	686.400	2462.576	0.25	100	0.25	12.00	61.94	0.000	0.000	0.000	5	50000
214		04:30:00	14120	0	85	20.64	101.60	2580	39.9	66	686.400	2476.876	0.30	100	0.30	14.40	62.24	0.000	0.000	0.000	5	54000
215		05:00:00	14120	0	84	20.64	101.60	2580	39.9	66	686.400	2491.176	0.30	100	0.30	14.40	62.54	0.000	0.000	0.000	5	74000
216		05:30:00	14120	0	85	20.64	101.60	2580	39.9	66	686.400	2505.476	0.25	100	0.25	12.00	62.79	0.000	0.000	0.000	5	66000
217	1999/08/03	06:00:00	14120	0	86	20.64	101.60	2580	39.9	66	686.400	2519.776	0.25	100	0.25	12.00	63.04	0.000	0.000	0.000	5	50000
218		06:30:00	14120	0	86	20.64	101.60	2580	39.9	66	686.400	2534.076	0.25	100	0.25	12.00	63.29	0.000	0.000	0.000	5	50000
219		07:00:00	14120	0	86	20.64	101.60	2580	39.9	66	686.400	2548.376	0.20	100	0.20	9.60	63.49	0.000	0.000	0.000	5	52000
220		07:30:00	14120	0	86	20.64	101.60	2580	39.9	66	686.400	2562.676	0.30	100	0.30	14.40	63.79	0.000	0.000	0.000	5	54000
221		08:00:00	14120	0	86	20.64	101.60	2580	39.9	66	686.400	2576.976	0.25	100	0.25	12.00	64.04	0.000	0.000	0.000	5	58000
222		08:30:00	14120	0	88	20.64	101.60	2580	39.9	66	686.400	2591.276	0.30	100	0.30	14.40	64.34	0.000	0.000	0.000	5	56000
223		09:00:00	14120	0	88	20.64	101.60	2580	39.9	66	686.400	2605.576	0.25	100	0.25	12.00	64.59	0.000	0.000	0.000	5	50000
224		09:30:00	14110	0	88	20.64	101.60	2580	39.9	67	685.265	2619.864	0.35	100	0.35	16.80	64.94	0.000	0.000	0.000	5	62000
225	1999/08/03	10:00:00	14110	0	88	20.64	101.60	2580	39.9	67	685.265	2634.141	0.25	100	0.25	12.00	65.19	0.000	0.000	0.000	5	68000
226		10:30:00	14110	0	88	20.64	101.60	2580	39.9	67	685.265	2648.417	0.30	100	0.30	14.40	65.49	0.000	0.000	0.000	5	68000
227		11:00:00	14110	0	88	20.64	101.60	2580	39.9	67	685.265	2662.693	0.25	100	0.25	12.00	65.74	0.000	0.000	0.000	5	68000
228		11:30:00	14110	0	88	20.64	101.60	2580	39.9	67	685.265	2676.970	0.25	100	0.25	12.00	65.99	0.000	0.000	0.000	5	68000
229		12:00:00	14110	0	88	20.64	101.60	2580	39.9	68	684.136	2691.234	0.40	100	0.40	19.20	66.39	0.000	0.000	0.000	5	68000
230		12:30:00	14110	0	88	20.64	101.60	2580	39.9	68	684.136	2705.487	0.30	100	0.30	14.40	66.69	0.000	0.000	0.000	5	68000
231		13:00:00	14110	0	88	20.64	101.60	2580	39.9	68	684.136	2719.740	0.20	100	0.20	9.60	66.89	0.000	0.000	0.000	5	68000
232		13:30:00	14110	0	88	20.64	101.60	2580	39.9	66	686.400	2734.016	0.20	100	0.20	9.60	67.09	0.000	0.000	0.000	5	66000
233	1999/08/03	14:00:00	14110	0	88	20.64	101.60	2580	39.9	66	686.400	2748.316	0.35	100	0.35	16.80	67.44	0.000	0.000	0.000	5	62000
234		14:30:00	14110	0	88	20.64	101.60	2580	40.0	66	687.263	2762.625	0.30	100	0.30	14.40	67.74	0.000	0.000	0.000	5	68000
235		15:00:00	14110	0	88	20.64	101.60	2580	40.0	66	687.263	2776.943	0.25	100	0.25	12.00	67.99	0.000	0.000	0.000	5	68000

FieldNotes Field Measurements

	Date	Clock Time	Tbg Pres	Csg Pres	WHT °C	Choke mm	Orifice mm	Static Pres kPa(g)	Diff Pres kPa	Meter Temp °C	Gas Rate 10 ³ m ³ /d	Cum. Gas 10 ³ m ³	Fid Gain m ³	BSW %	H2O Gain m ³	H2O Rate m ³ /d	Cum H2O m ³	Oil Gain m ³	Oil Rate m ³ /d	Cum. Oil m ³	Ph	Salinity ppm
236	1999/08/03	15:30:00	14110	0	88	20.64	101.60	2580	40.0	66	687.263	2791.261	0.30	100	0.30	14.40	68.29	0.000	0.000	0.000	5	68000
237		16:00:00	14110	0	88	20.64	101.60	2580	40.0	66	687.263	2805.579	0.20	100	0.20	9.60	68.49	0.000	0.000	0.000	5	68000
238		16:30:00	14100	0	88	20.64	101.60	2580	39.9	66	686.400	2819.888	0.35	100	0.35	16.80	68.84	0.000	0.000	0.000	5	68000
239		17:00:00	14100	0	88	20.64	101.60	2580	39.9	66	686.400	2834.188	0.25	100	0.25	12.00	69.09	0.000	0.000	0.000	5	68000
240		17:30:00	14100	0	88	20.64	101.60	2580	39.9	66	686.400	2848.488	0.30	100	0.30	14.40	69.39	0.000	0.000	0.000	5	68000
241	1999/08/03	18:00:00	14100	0	88	20.64	101.60	2580	40.0	66	687.263	2862.797	0.20	100	0.20	9.60	69.59	0.000	0.000	0.000	5	68000
242		18:30:00	14200	0	87	20.64	101.60	2580	40.0	67	686.126	2877.103	0.30	100	0.30	14.40	69.89	0.000	0.000	0.000	5	64000
243		19:00:00	14100	0	85	20.64	101.60	2580	40.0	67	686.126	2891.398	0.15	100	0.15	7.20	70.04	0.000	0.000	0.000	5	52000
244		19:30:00	14100	0	86	20.64	101.60	2580	40.0	67	686.126	2905.692	0.35	100	0.35	16.80	70.39	0.000	0.000	0.000	5	56000
245		20:00:00	14100	0	86	20.64	101.60	2580	40.0	67	686.126	2919.986	0.30	100	0.30	14.40	70.69	0.000	0.000	0.000	5	48000
246		20:30:00	14100	0	86	20.64	101.60	2580	40.0	68	684.996	2934.269	0.25	100	0.25	12.00	70.94	0.000	0.000	0.000	5	50000
247		21:00:00	14100	0	86	20.64	101.60	2580	40.0	68	684.996	2948.540	0.30	100	0.30	14.40	71.24	0.000	0.000	0.000	5	46000
248		21:30:00	14100	0	87	20.64	101.60	2580	40.0	68	684.996	2962.810	0.25	100	0.25	12.00	71.49	0.000	0.000	0.000	5	42000
249		22:00:00	14100	0	87	20.64	101.60	2580	40.0	68	684.996	2977.081	0.25	100	0.25	12.00	71.74	0.000	0.000	0.000	5	50000
250		22:30:00	14100	0	86	20.64	101.60	2580	40.0	68	684.996	2991.352	0.25	100	0.25	12.00	71.99	0.000	0.000	0.000	5	58000
251		23:00:00	14100	0	86	20.64	101.60	2580	40.0	68	684.996	3005.623	0.35	100	0.35	16.80	72.34	0.000	0.000	0.000	5	62000
252		23:30:00	14100	0	87	20.64	101.60	2580	39.9	68	684.136	3019.884	0.20	100	0.20	9.60	72.54	0.000	0.000	0.000	5	56000
253	1999/08/04	00:00:00	14100	0	86	20.64	101.60	2580	39.9	68	684.136	3034.137	0.25	100	0.25	12.00	72.79	0.000	0.000	0.000	5	62000
254		00:30:00	14100	0	85	20.64	101.60	2580	39.9	68	684.136	3048.390	0.30	100	0.30	14.40	73.09	0.000	0.000	0.000	5	60000
255		01:00:00	14100	0	85	20.64	101.60	2580	39.9	67	685.265	3062.655	0.35	100	0.35	16.80	73.44	0.000	0.000	0.000	5	60000
256		01:30:00	14100	0	85	20.64	101.60	2580	39.9	67	685.265	3076.931	0.25	100	0.25	12.00	73.69	0.000	0.000	0.000	5	58000
257		02:00:00	14090	0	86	20.64	101.60	2580	39.9	67	685.265	3091.207	0.25	100	0.25	12.00	73.94	0.000	0.000	0.000	5	62000
258		02:30:00	14090	0	86	20.64	101.60	2580	39.9	67	685.265	3105.484	0.30	100	0.30	14.40	74.24	0.000	0.000	0.000	5	60000
259		03:00:00	14090	0	86	20.64	101.60	2580	39.9	67	685.265	3119.760	0.25	100	0.25	12.00	74.49	0.000	0.000	0.000	5	58000
260		03:30:00	14090	0	86	20.64	101.60	2580	39.9	68	684.136	3134.025	0.15	100	0.15	7.20	74.64	0.000	0.000	0.000	5	64000
261		04:00:00	14090	0	86	20.64	101.60	2580	39.9	68	684.136	3148.277	0.25	100	0.25	12.00	74.89	0.000	0.000	0.000	5	60000
262		04:30:00	14090	0	86	20.64	101.60	2580	39.9	68	684.136	3162.530	0.20	100	0.20	9.60	75.09	0.000	0.000	0.000	5	62000
263		05:00:00	14090	0	86	20.64	101.60	2580	39.9	67	685.265	3176.795	0.30	100	0.30	14.40	75.39	0.000	0.000	0.000	5	68000
264		05:30:00	14090	0	87	20.64	101.60	2580	39.9	67	685.265	3191.071	0.35	100	0.35	16.80	75.74	0.000	0.000	0.000	5	46000
265	1999/08/04	06:00:00	14090	0	87	20.64	101.60	2580	39.9	68	684.136	3205.336	0.20	100	0.20	9.60	75.94	0.000	0.000	0.000	5	42000
266		06:30:00	14080	0	87	20.64	101.60	2560	39.9	67	682.620	3219.573	0.25	100	0.25	12.00	76.19	0.000	0.000	0.000	5	50000
267		07:00:00	14080	0	87	20.64	101.60	2560	39.9	68	681.497	3233.782	0.20	100	0.20	9.60	76.39	0.000	0.000	0.000	5	52000
268		07:30:00	14080	0	87	20.64	101.60	2560	39.9	68	681.497	3247.980	0.30	100	0.30	14.40	76.69	0.000	0.000	0.000	5	50000
269		08:00:00	14080	0	86	20.64	101.60	2560	39.9	68	681.497	3262.178	0.20	100	0.20	9.60	76.89	0.000	0.000	0.000	5	60000
270		08:30:00	14080	0	86	20.64	101.60	2560	39.9	68	681.497	3276.376	0.25	100	0.25	12.00	77.14	0.000	0.000	0.000	5	56000
271		09:00:00	14080	0	86	20.64	101.60	2560	39.9	68	681.497	3290.574	0.30	100	0.30	14.40	77.44	0.000	0.000	0.000	5	58000
272		09:30:00	14080	0	87	20.64	101.60	2560	39.9	68	681.497	3304.772	0.25	100	0.25	12.00	77.69	0.000	0.000	0.000	5	54000
273		10:00:00	14080	0	87	20.64	101.60	2560	39.9	68	681.497	3318.969	0.35	100	0.35	16.80	78.04	0.000	0.000	0.000	5	52000
274		10:30:00	14080	0	87	20.64	101.60	2560	39.9	68	681.497	3333.167	0.30	100	0.30	14.40	78.34	0.000	0.000	0.000	5	52000
275		11:00:00	14080	0	87	20.64	101.60	2560	39.9	68	681.497	3347.365	0.20	100	0.20	9.60	78.54	0.000	0.000	0.000	5	32000
276		11:30:00	14080	0	92	20.64	101.60	2560	39.9	68	681.497	3361.563	0.35	100	0.35	16.80	78.89	0.000	0.000	0.000	5	32000
277	1999/08/04	12:00:00	14080	0	92	20.64	101.60	2560	39.9	68	681.497	3375.761	0.30	100	0.30	14.40	79.19	0.000	0.000	0.000	5	32000
278		12:30:00	14080	0	93	20.64	101.60	2560	39.9	68	681.497	3389.959	0.20	100	0.20	9.60	79.39	0.000	0.000	0.000	5	30000
279		13:00:00	14080	0	93	20.64	101.60	2560	39.9	68	681.497	3404.156	0.20	100	0.20	9.60	79.59	0.000	0.000	0.000	5	30000
280		13:30:00	14080	0	93	20.64	101.60	2560	39.9	68	681.497	3418.354	0.40	100	0.40	19.20	79.99	0.000	0.000	0.000	5	30000
281		14:00:00	14080	0	94	20.64	101.60	2560	39.9	68	681.497	3432.552	0.15	100	0.15	7.20	80.14	0.000	0.000	0.000	5	32000
282		14:30:00	14080	0	94	20.64	101.60	2560	39.9	68	681.497	3446.750	0.20	100	0.20	9.60	80.34	0.000	0.000	0.000	5	32000

FieldNotes Field Measurements

Date	Clock Time	Tbg Pres	Csg Pres	WHT	Choke	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	
yyyy/mm/ddh:mm:ss		kPa(g)	kPa(g)	°C	mm	mm	kPa(g)	kPa	°C	10 ³ m ³ /d	10 ³ m ³	m ³	%	m ³	m ³ /d	m ³	m ³	m ³ /d	m ³		ppm	
283	1999/08/04	15:00:00	14080	0	94	20.64	101.60	2560	39.9	68	681.497	3460.948	0.25	100	0.25	12.00	80.59	0.000	0.000	0.000	5	24000
284		15:30:00	14080	0	94	20.64	101.60	2560	39.9	68	681.497	3475.146	0.40	100	0.40	19.20	80.99	0.000	0.000	0.000	5	26000
285		16:00:00	14080	0	94	20.64	101.60	2560	39.9	68	681.497	3489.344	0.25	100	0.25	12.00	81.24	0.000	0.000	0.000	5	24000
286		16:30:00	14080	0	94	20.64	101.60	2560	39.9	68	681.497	3503.541	0.30	100	0.30	14.40	81.54	0.000	0.000	0.000	5	24000
287		17:00:00	14080	0	95	20.64	101.60	2560	40.0	68	682.353	3517.748	0.25	100	0.25	12.00	81.79	0.000	0.000	0.000	5	22000
288		17:30:00	14080	0	96	20.64	101.60	2560	40.0	68	682.353	3531.964	0.25	100	0.25	12.00	82.04	0.000	0.000	0.000	5	22000
289	1999/08/04	18:00:00	14080	0	97	20.64	101.60	2560	40.0	68	682.353	3546.180	0.25	100	0.25	12.00	82.29	0.000	0.000	0.000	5	26000
290		18:30:00	14080	0	97	20.64	101.60	2560	40.0	68	682.353	3560.395	0.25	100	0.25	12.00	82.54	0.000	0.000	0.000	5	26000
291		19:00:00	14085	0	98	20.64	101.60	2560	40.0	69	681.234	3574.599	0.25	100	0.25	12.00	82.79	0.000	0.000	0.000	5	24000
292		19:30:00	14085	0	88	20.64	101.60	2560	40.0	70	680.122	3588.780	0.30	100	0.30	14.40	83.09	0.000	0.000	0.000	5	26000
293		20:00:00	14085	0	88	20.64	101.60	2560	40.0	70	680.122	3602.949	0.15	100	0.15	7.20	83.24	0.000	0.000	0.000	5	26000
294		20:30:00	14085	0	88	20.64	101.60	2560	40.0	70	680.122	3617.118	0.25	100	0.25	12.00	83.49	0.000	0.000	0.000	5	26000
295		21:00:00	14085	0	87	20.64	101.60	2560	40.0	70	680.122	3631.288	0.25	100	0.25	12.00	83.74	0.000	0.000	0.000	5	26000
296		21:00:00	H2S by Kitagawa = 0.8% @ meter run, 0.5% @ casing.																			
297		21:30:00	14085	0	86	20.64	101.60	2560	40.0	70	680.122	3645.457	0.30	100	0.30	14.40	84.04	0.000	0.000	0.000	5	26000
298		22:00:00	14085	0	85	20.64	101.60	2560	40.0	70	680.122	3659.626	0.25	100	0.25	12.00	84.29	0.000	0.000	0.000	5	26000
299		22:30:00	14085	0	85	20.64	101.60	2560	40.0	70	680.122	3673.795	0.20	100	0.20	9.60	84.49	0.000	0.000	0.000	5	26000
300		23:00:00	14085	0	85	20.64	101.60	2560	40.0	70	680.122	3687.965	0.25	100	0.25	12.00	84.74	0.000	0.000	0.000	5	24000
301		23:30:00	14050	0	85	20.64	101.60	2560	40.0	68	682.353	3702.157	0.20	100	0.20	9.60	84.94	0.000	0.000	0.000	5	26000
302	1999/08/05	00:00:00	14050	0	85	20.64	101.60	2560	40.0	68	682.353	3716.373	0.30	100	0.30	14.40	85.24	0.000	0.000	0.000	5	26000
303		00:30:00	14030	0	83	20.64	101.60	2560	40.0	66	684.609	3730.612	0.25	100	0.25	12.00	85.49	0.000	0.000	0.000	5	26000
304		01:00:00	14030	0	83	20.64	101.60	2550	40.0	67	682.151	3744.849	0.25	100	0.25	12.00	85.74	0.000	0.000	0.000	5	30000
305		01:30:00	14030	0	83	20.64	101.60	2550	40.0	68	681.028	3759.049	0.30	100	0.30	14.40	86.04	0.000	0.000	0.000	5	28000
306		02:00:00	14030	0	83	20.64	101.60	2550	40.0	68	681.028	3773.237	0.25	100	0.25	12.00	86.29	0.000	0.000	0.000	5	28000
307		02:30:00	14030	0	84	20.64	101.60	2550	40.0	67	682.151	3787.437	0.35	100	0.35	16.80	86.64	0.000	0.000	0.000	5	28000
308		03:00:00	14030	0	84	20.64	101.60	2550	40.0	68	681.028	3801.636	0.25	100	0.25	12.00	86.89	0.000	0.000	0.000	5	28000
309		03:30:00	14030	0	84	20.64	101.60	2550	40.0	67	682.151	3815.836	0.30	100	0.30	14.40	87.19	0.000	0.000	0.000	5	28000
310		04:00:00	14030	0	84	20.64	101.60	2550	40.0	67	682.151	3830.048	0.25	100	0.25	12.00	87.44	0.000	0.000	0.000	5	26000
311		04:30:00	14030	0	84	20.64	101.60	2550	40.0	67	682.151	3844.259	0.25	100	0.25	12.00	87.69	0.000	0.000	0.000	5	28000
312		05:00:00	14030	0	84	20.64	101.60	2550	40.0	67	682.151	3858.471	0.25	100	0.25	12.00	87.94	0.000	0.000	0.000	5	30000
313		05:30:00	14030	0	83	20.64	101.60	2550	40.0	67	682.151	3872.682	0.20	100	0.20	9.60	88.14	0.000	0.000	0.000	5	30000
314	1999/08/05	06:00:00	14030	0	82	20.64	101.60	2550	40.0	67	682.151	3886.893	0.20	100	0.20	9.60	88.34	0.000	0.000	0.000	5	28000
315		06:00:00	H2S by Kitagawa = 1.0%.																			
316		06:30:00	14030	0	83	20.64	101.60	2550	40.0	67	682.151	3901.105	0.20	100	0.20	9.60	88.54	0.000	0.000	0.000	5	26000
317		07:00:00	14030	0	83	20.64	101.60	2550	40.0	67	682.151	3915.316	0.20	100	0.20	9.60	88.74	0.000	0.000	0.000	5	26000
318		07:30:00	14030	0	84	20.64	101.60	2550	40.0	67	682.151	3929.528	0.20	100	0.20	9.60	88.94	0.000	0.000	0.000	5	28000
319		08:00:00	14030	0	84	20.64	101.60	2550	40.0	68	681.028	3943.728	0.20	100	0.20	9.60	89.14	0.000	0.000	0.000	5	28000
320		08:30:00	14040	0	84	20.64	101.60	2550	40.0	68	681.028	3957.916	0.20	100	0.20	9.60	89.34	0.000	0.000	0.000	5	22000
321		09:00:00	14040	0	84	20.64	101.60	2550	39.8	68	679.318	3972.086	0.20	100	0.20	9.60	89.54	0.000	0.000	0.000	5	22000
322		09:30:00	14040	0	86	20.64	101.60	2550	39.8	68	679.318	3986.239	0.20	100	0.20	9.60	89.74	0.000	0.000	0.000	5	23000
323		10:00:00	14040	0	86	20.64	101.60	2550	39.8	68	679.318	4000.391	0.20	100	0.20	9.60	89.94	0.000	0.000	0.000	5	22000
324		10:30:00	14040	0	86	20.64	101.60	2550	39.8	68	679.318	4014.543	0.20	100	0.20	9.60	90.14	0.000	0.000	0.000	5	22000
325		11:00:00	14040	0	86	20.64	101.60	2550	39.8	68	679.318	4028.696	0.20	100	0.20	9.60	90.34	0.000	0.000	0.000	5	11000
326		11:30:00	14040	0	86	20.64	101.60	2550	39.8	68	679.318	4042.848	0.20	100	0.20	9.60	90.54	0.000	0.000	0.000	5	10000
327	1999/08/05	12:00:00	14040	0	86	20.64	101.60	2550	39.8	68	679.318	4057.001	0.20	100	0.20	9.60	90.74	0.000	0.000	0.000	5	20000
328		12:30:00	14040	0	86	20.64	101.60	2550	39.8	68	679.318	4071.153	0.30	100	0.30	14.40	91.04	0.000	0.000	0.000	5	20000
329		13:00:00	14040	0	86	20.64	101.60	2550	39.8	68	679.318	4085.306	0.35	100	0.35	16.80	91.39	0.000	0.000	0.000	5	20000

FieldNotes Field Measurements

	Date	Clock Time	Tbg Pres	Csg Pres	WHT °C	Choke mm	Orifice mm	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 ppm
	yyyy/mm/ddh:mm:ss		kPa(g)	kPa(g)	°C	mm	mm	kPa(g)	kPa	°C	10 ³ m ³ /d	10 ³ m ³	m ³		m ³	m ³ /d	m ³	m ³	m ³ /d	m ³		
330	1999/08/05	13:30:00	14040	0	86	20.64	101.60	2550	39.8	68	679.318	4099.458	0.15	100	0.15	7.20	91.54	0.000	0.000	0.000	5	20000
331		14:00:00	14020	0	85	20.64	101.60	2550	39.8	68	679.318	4113.811	0.30	100	0.30	14.40	91.84	0.000	0.000	0.000	5	24000
332		14:30:00	14020	0	85	20.64	101.60	2550	39.8	67	680.437	4127.775	0.35	100	0.35	16.80	92.19	0.000	0.000	0.000	5	24000
333		15:00:00	14020	0	84	20.64	101.60	2550	39.8	67	680.437	4141.950	0.15	100	0.15	7.20	92.34	0.000	0.000	0.000	5	22000
334		15:30:00	14020	0	84	20.64	101.60	2550	39.6	67	678.719	4156.108	0.25	100	0.25	12.00	92.59	0.000	0.000	0.000	5	20000
335		16:00:00	14020	0	83	20.64	101.60	2550	39.6	67	678.719	4170.248	0.30	100	0.30	14.40	92.89	0.000	0.000	0.000	5	22000
336		16:30:00	13990	0	82	20.64	101.60	2550	39.6	66	679.842	4184.400	0.25	100	0.25	12.00	93.14	0.000	0.000	0.000	5	22000
337		17:00:00	13990	0	84	20.64	101.60	2550	39.6	66	679.842	4198.563	0.25	100	0.25	12.00	93.39	0.000	0.000	0.000	5	22000
338		17:30:00	13990	0	84	20.64	101.60	2550	39.6	66	679.842	4212.727	0.35	100	0.35	16.80	93.74	0.000	0.000	0.000	5	22000
339	1999/08/05	18:00:00	13990	0	84	20.64	101.60	2550	39.8	66	681.563	4226.908	0.15	100	0.15	7.20	93.89	0.000	0.000	0.000	5	24000
340		18:30:00	13990	0	84	20.64	101.60	2550	39.7	66	680.703	4241.098	0.25	100	0.25	12.00	94.14	0.000	0.000	0.000	5	26000
341		19:00:00	13990	0	84	20.64	101.60	2550	39.7	67	679.579	4255.268	0.20	100	0.20	9.60	94.34	0.000	0.000	0.000	5	26000
342		19:30:00	13990	0	84	20.64	101.60	2550	39.7	67	679.579	4269.426	0.25	100	0.25	12.00	94.59	0.000	0.000	0.000	5	26000
343		20:00:00	13990	0	84	20.64	101.60	2550	39.7	67	679.579	4283.584	0.30	100	0.30	14.40	94.89	0.000	0.000	0.000	5	26000
344		20:30:00	13990	0	84	20.64	101.60	2550	39.7	67	679.579	4297.742	0.25	100	0.25	12.00	95.14	0.000	0.000	0.000	5	26000
345		21:00:00	13990	0	84	20.64	101.60	2550	39.7	67	679.579	4311.900	0.30	100	0.30	14.40	95.44	0.000	0.000	0.000	5	30000
346		21:30:00	13990	0	83	20.64	101.60	2550	39.7	67	679.579	4326.057	0.20	100	0.20	9.60	95.64	0.000	0.000	0.000	5	28000
347		21:45:00	Replace thermometer at wellhead.																			
348		22:00:00	13990	0	94	20.64	101.60	2550	39.7	67	679.579	4340.215	0.25	100	0.25	12.00	95.89	0.000	0.000	0.000	5	24000
349		22:30:00	13990	0	96	20.64	101.60	2550	39.7	67	679.579	4354.373	0.25	100	0.25	12.00	96.14	0.000	0.000	0.000	5	26000
350		23:00:00	13990	0	94	20.64	101.60	2550	39.7	67	679.579	4368.531	0.35	100	0.35	16.80	96.49	0.000	0.000	0.000	5	28000
351		23:30:00	13990	0	96	20.64	101.60	2550	39.7	67	679.579	4382.689	0.20	100	0.20	9.60	96.69	0.000	0.000	0.000	5	26000
352	1999/08/06	00:00:00	13990	0	96	20.64	101.60	2550	39.7	67	679.579	4396.847	0.25	100	0.25	12.00	96.94	0.000	0.000	0.000	5	28000
353		00:30:00	13990	0	96	20.64	101.60	2550	39.7	67	679.579	4411.005	0.30	100	0.30	14.40	97.24	0.000	0.000	0.000	5	28000
354		01:00:00	13990	0	96	20.64	101.60	2550	39.7	67	679.579	4425.163	0.25	100	0.25	12.00	97.49	0.000	0.000	0.000	5	26000
355		01:30:00	13990	0	96	20.64	101.60	2550	39.7	67	679.579	4439.321	0.35	100	0.35	16.80	97.84	0.000	0.000	0.000	5	26000
356		02:00:00	13980	0	95	20.64	101.60	2545	39.7	67	678.917	4453.472	0.25	100	0.25	12.00	98.09	0.000	0.000	0.000	5	26000
357		02:30:00	13980	0	95	20.64	101.60	2545	39.7	67	678.917	4467.616	0.25	100	0.25	12.00	98.34	0.000	0.000	0.000	5	26000
358		03:00:00	13980	0	96	20.64	101.60	2545	39.7	67	678.917	4481.760	0.25	100	0.25	12.00	98.59	0.000	0.000	0.000	5	26000
359		03:30:00	13980	0	96	20.64	101.60	2545	39.7	67	678.917	4495.904	0.25	100	0.25	12.00	98.84	0.000	0.000	0.000	5	26000
360		04:00:00	13980	0	96	20.64	101.60	2545	39.7	67	678.917	4510.048	0.35	100	0.35	16.80	99.19	0.000	0.000	0.000	5	26000
361		04:30:00	13990	0	96	20.64	101.60	2545	39.7	67	678.917	4524.192	0.20	100	0.20	9.60	99.39	0.000	0.000	0.000	5	26000
362		05:00:00	13990	0	96	20.64	101.60	2545	39.7	67	678.917	4538.336	0.20	100	0.20	9.60	99.59	0.000	0.000	0.000	5	26000
363		05:30:00	14000	0	97	20.64	101.60	2545	39.8	67	679.774	4552.489	0.35	100	0.35	16.80	99.94	0.000	0.000	0.000	5	26000
364	1999/08/06	06:00:00	14000	0	97	20.64	101.60	2545	39.8	67	679.774	4566.651	0.15	100	0.15	7.20	100.09	0.000	0.000	0.000	5	26000
365		06:00:00	H2S by Kitagawa = 0.5%.																			
366		06:30:00	14030	0	97	20.64	101.60	2545	39.8	68	678.656	4580.801	0.15	100	0.15	7.20	100.24	0.000	0.000	0.000	5	26000
367		07:00:00	14030	0	97	20.64	101.60	2545	39.8	68	678.656	4594.940	0.20	100	0.20	9.60	100.44	0.000	0.000	0.000	5	24000
368		07:30:00	14030	0	97	20.64	101.60	2545	39.8	68	678.656	4609.079	0.15	100	0.15	7.20	100.59	0.000	0.000	0.000	5	24000
369		08:00:00	14030	0	97	20.64	101.60	2545	39.8	68	678.656	4623.218	0.30	100	0.30	14.40	100.89	0.000	0.000	0.000	5	25000
370		08:30:00	14030	0	97	20.64	101.60	2545	39.8	68	678.656	4637.356	0.25	100	0.25	12.00	101.14	0.000	0.000	0.000	5	24000
371		09:00:00	14020	0	96	20.64	101.60	2545	39.7	68	677.800	4651.486	0.25	100	0.25	12.00	101.39	0.000	0.000	0.000	5	25000
372		09:30:00	14020	0	97	20.64	101.60	2545	39.7	68	677.800	4665.607	0.20	100	0.20	9.60	101.59	0.000	0.000	0.000	5	24000
373		10:00:00	14020	0	97	20.64	101.60	2545	39.6	68	676.943	4679.719	0.25	100	0.25	12.00	101.84	0.000	0.000	0.000	5	20000
374		10:30:00	14020	0	98	20.64	101.60	2545	39.6	68	676.943	4693.822	0.25	100	0.25	12.00	102.09	0.000	0.000	0.000	5	20000
375		11:00:00	14020	0	97	20.64	101.60	2545	39.6	68	676.943	4707.925	0.15	100	0.15	7.20	102.24	0.000	0.000	0.000	5	16000
376		11:30:00	14000	0	97	20.64	101.60	2545	39.6	68	676.943	4722.028	0.35	100	0.35	16.80	102.59	0.000	0.000	0.000	5	18000

FieldNotes Field Measurements

	Date	Clock Time	Tbg Pres	Csg Pres	WHT °C	Choke mm	Orifice mm	Static Pres kPa(g)	Diff Pres kPa	Meter Temp °C	Gas Rate 10 ³ m ³ /d	Cum. Gas 10 ³ m ³	Fld Gain m ³	BSW %	H2O Gain m ³	H2O Rate m ³ /d	Cum H2O m ³	Oil Gain m ³	Oil Rate m ³ /d	Cum. Oil m ³	Ph	Salinity ppm
377	1999/08/06	12:00:00	14000	0	97	20.64	101.60	2545	39.6	68	676.943	4736.131	0.25	100	0.25	12.00	102.84	0.000	0.000	0.000	5	20000
378		12:30:00	14000	0	96	20.64	101.60	2545	39.6	68	676.943	4750.234	0.30	100	0.30	14.40	103.14	0.000	0.000	0.000	5	20000
379		13:00:00	14000	0	96	20.64	101.60	2545	39.6	68	676.943	4764.337	0.20	100	0.20	9.60	103.34	0.000	0.000	0.000	5	26000
380		13:30:00	14000	0	95	20.64	101.60	2545	39.6	68	676.943	4778.440	0.25	100	0.25	12.00	103.59	0.000	0.000	0.000	5	26000
381		14:00:00	14000	0	94	20.64	101.60	2545	39.6	68	676.943	4792.543	0.20	100	0.20	9.60	103.79	0.000	0.000	0.000	5	22000
382		14:30:00	14000	0	94	20.64	101.60	2545	39.6	68	676.943	4806.645	0.30	100	0.30	14.40	104.09	0.000	0.000	0.000	5	22000
383		15:00:00	13990	0	94	20.64	101.60	2545	39.6	68	676.943	4820.748	0.25	100	0.25	12.00	104.34	0.000	0.000	0.000	5	26000
384		15:30:00	13990	0	94	20.64	101.60	2545	39.6	68	676.943	4834.851	0.25	100	0.25	12.00	104.59	0.000	0.000	0.000	5	24000
385		16:00:00	13990	0	94	20.64	101.60	2545	39.6	68	676.943	4848.954	0.25	100	0.25	12.00	104.84	0.000	0.000	0.000	5	20000
386		16:30:00	13970	0	94	20.64	101.60	2545	39.6	68	676.943	4863.057	0.25	100	0.25	12.00	105.09	0.000	0.000	0.000	5	22000
387		17:00:00	13980	0	94	20.64	101.60	2545	39.6	68	676.943	4877.160	0.25	100	0.25	12.00	105.34	0.000	0.000	0.000	5	22000
388		17:30:00	13970	0	94	20.64	101.60	2545	39.6	68	676.943	4891.263	0.25	100	0.25	12.00	105.59	0.000	0.000	0.000	5	22000
389	1999/08/06	18:00:00	13970	0	94	20.64	101.60	2545	39.6	68	676.943	4905.366	0.20	100	0.20	9.60	105.79	0.000	0.000	0.000	5	22000
390		18:30:00	13970	0	94	20.64	101.60	2545	39.6	68	676.943	4919.469	0.20	100	0.20	9.60	105.99	0.000	0.000	0.000	5	24000
391		19:00:00	13970	0	95	20.64	101.60	2545	39.6	69	675.834	4933.561	0.20	100	0.20	9.60	106.19	0.000	0.000	0.000	5	28000
392		19:30:00	13970	0	95	20.64	101.60	2545	39.6	69	675.834	4947.641	0.25	100	0.25	12.00	106.44	0.000	0.000	0.000	5	28000
393		20:00:00	13970	0	95	20.64	101.60	2545	39.6	69	675.834	4961.721	0.25	100	0.25	12.00	106.69	0.000	0.000	0.000	5	26000
394		20:30:00	13970	0	95	20.64	101.60	2545	39.6	69	675.834	4975.800	0.25	100	0.25	12.00	106.94	0.000	0.000	0.000	5	24000
395		21:00:00	13970	0	95	20.64	101.60	2545	39.6	69	675.834	4989.880	0.25	100	0.25	12.00	107.19	0.000	0.000	0.000	5	24000
396		21:30:00	13970	0	96	20.64	101.60	2545	39.6	69	675.834	5003.960	0.25	100	0.25	12.00	107.44	0.000	0.000	0.000	5	26000
397		22:00:00	13970	0	99	20.64	101.60	2545	39.6	69	675.834	5018.040	0.25	100	0.25	12.00	107.69	0.000	0.000	0.000	5	22000
398		22:30:00	13970	0	98	20.64	101.60	2545	39.6	69	675.834	5032.120	0.20	100	0.20	9.60	107.89	0.000	0.000	0.000	5	24000
399		23:00:00	13970	0	99	20.64	101.60	2545	39.6	69	675.834	5046.200	0.25	100	0.25	12.00	108.14	0.000	0.000	0.000	5	24000
400		23:30:00	13970	0	99	20.64	101.60	2545	39.6	69	675.834	5060.280	0.25	100	0.25	12.00	108.39	0.000	0.000	0.000	5	24000
401	1999/08/07	00:00:00	13970	0	98	20.64	101.60	2545	39.6	69	675.834	5074.360	0.25	100	0.25	12.00	108.64	0.000	0.000	0.000	5	24000
402		00:30:00	13970	0	98	20.64	101.60	2545	39.6	69	675.834	5088.439	2.00	100	2.00	96.00	110.64	0.000	0.000	0.000	5	24000
403		01:00:00	13970	0	99	20.64	101.60	2530	39.6	69	673.855	5102.499	0.40	100	0.40	19.20	111.04	0.000	0.000	0.000	5	24000
404		01:30:00	13960	0	99	20.64	101.60	2530	39.6	68	674.960	5116.549	0.30	100	0.30	14.40	111.34	0.000	0.000	0.000	5	24000
405		02:00:00	13960	0	99	20.64	101.60	2530	39.6	69	673.855	5130.599	0.15	100	0.15	7.20	111.49	0.000	0.000	0.000	5	18000
406		02:30:00	13960	0	98	20.64	101.60	2530	39.6	69	673.855	5144.638	0.30	100	0.30	14.40	111.79	0.000	0.000	0.000	5	20000
407		03:00:00	13960	0	98	20.64	101.60	2530	39.6	69	673.855	5158.676	0.20	100	0.20	9.60	111.99	0.000	0.000	0.000	5	20000
408		03:30:00	13940	0	98	20.64	101.60	2530	39.6	69	673.855	5172.715	0.25	100	0.25	12.00	112.24	0.000	0.000	0.000	5	20000
409		04:00:00	13940	0	98	20.64	101.60	2530	39.6	68	674.960	5186.765	0.20	100	0.20	9.60	112.44	0.000	0.000	0.000	5	20000
410		04:30:00	13930	0	98	20.64	101.60	2530	39.6	68	674.960	5200.827	0.30	100	0.30	14.40	112.74	0.000	0.000	0.000	5	20000
411		05:00:00	13930	0	96	20.64	101.60	2530	39.6	68	674.960	5214.888	0.25	100	0.25	12.00	112.99	0.000	0.000	0.000	5	20000
412		05:30:00	13930	0	97	20.64	101.60	2530	39.6	68	674.960	5228.950	0.20	100	0.20	9.60	113.19	0.000	0.000	0.000	5	20000
413	1999/08/07	06:00:00	13930	0	97	20.64	101.60	2530	39.6	68	674.960	5243.012	0.10	100	0.10	4.80	113.29	0.000	0.000	0.000	5	20000
414		06:00:00	H2S by Kitagawa = 0.4%																			
415		06:30:00	13930	0	96	20.64	101.60	2530	39.6	68	674.960	5257.073	0.15	100	0.15	7.20	113.44	0.000	0.000	0.000	5	20000
416		07:00:00	13930	0		20.64	101.60	2530	39.2	68	671.531	5271.099	0.25	100	0.25	12.00	113.69	0.000	0.000	0.000	5	18000
417		07:30:00	13930	0	94	20.64	101.60	2530	39.2	67	672.636	5285.101	0.15	100	0.15	7.20	113.84	0.000	0.000	0.000	5	20000
418		08:00:00	13930	0	94	20.64	101.60	2530	39.2	67	672.636	5299.114	0.40	100	0.40	19.20	114.24	0.000	0.000	0.000	5	16000
419		08:30:00	13930	0	96	20.64	101.60	2530	39.0	67	670.912	5313.110	0.15	100	0.15	7.20	114.39	0.000	0.000	0.000	5	16000
420		09:00:00	13930	0	96	20.64	101.60	2530	39.0	67	670.912	5327.087	0.20	100	0.20	9.60	114.59	0.000	0.000	0.000	5	20000
421		09:30:00	13930	0	100	20.64	101.60	2530	39.0	68	669.810	5341.053	0.25	100	0.25	12.00	114.84	0.000	0.000	0.000	5	22000
422		10:00:00	13930	0	100	20.64	101.60	2530	39.0	68	669.810	5355.007	0.25	100	0.25	12.00	115.09	0.000	0.000	0.000	5	22000
423		10:30:00	13930	0	99	20.64	101.60	2530	39.0	68	669.810	5368.962	0.25	100	0.25	12.00	115.34	0.000	0.000	0.000	5	20000

FieldNotes Field Measurements

	Date	Clock Time	Tbg Pres	Csg Pres	WHT °C	Choke mm	Orifice mm	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 ppm
	yyyy/mm/ddh:mm:ss		kPa(g)	kPa(g)	°C	mm	mm	kPa(g)	kPa	°C	10 ³ m ³ /d	10 ³ m ³	m ³		m ³	m ³ /d	m ³	m ³	m ³ /d	m ³		
424	1999/08/07	11:00:00	13930	0	99	20.64	101.60	2530	39.0	68	669.810	5382.916	0.20	100	0.20	9.60	115.54	0.000	0.000	0.000	5	20000
425		11:30:00	13940	0	100	20.64	101.60	2530	39.0	68	669.810	5396.870	0.30	100	0.30	14.40	115.84	0.000	0.000	0.000	5	20000
426	1999/08/07	12:00:00	13940	0	99	20.64	101.60	2530	39.0	68	669.810	5410.825	0.20	100	0.20	9.60	116.04	0.000	0.000	0.000	5	20000
427		12:30:00	13940	0	98	20.64	101.60	2530	39.0	68	669.810	5424.779	0.25	100	0.25	12.00	116.29	0.000	0.000	0.000	5	22000
428		13:00:00	13940	0	100	20.64	101.60	2520	39.0	68	668.495	5438.720	0.25	100	0.25	12.00	116.54	0.000	0.000	0.000	5	22000
429		13:30:00	13940	0	100	20.64	101.60	2520	39.0	68	668.495	5452.647	0.30	100	0.30	14.40	116.84	0.000	0.000	0.000	5	20000
430		14:00:00	13920	0	98	20.64	101.60	2520	39.0	68	668.495	5466.574	0.30	100	0.30	14.40	117.14	0.000	0.000	0.000	5	18000
431		14:30:00	13920	0	98	20.64	101.60	2520	39.0	68	668.495	5480.501	0.20	100	0.20	9.60	117.34	0.000	0.000	0.000	5	18000
432		15:00:00	13910	0	98	20.64	101.60	2520	39.0	68	668.495	5494.428	0.30	100	0.30	14.40	117.64	0.000	0.000	0.000	5	16000
433		15:30:00	13910	0	98	20.64	101.60	2520	39.0	68	668.495	5508.355	0.20	100	0.20	9.60	117.84	0.000	0.000	0.000	5	16000
434		16:00:00	13910	0	100	20.64	101.60	2520	39.0	68	668.495	5522.282	0.25	100	0.25	12.00	118.09	0.000	0.000	0.000	5	14000
435		16:30:00	13920	0	99	20.64	101.60	2520	39.0	68	668.495	5536.209	0.35	100	0.35	16.80	118.44	0.000	0.000	0.000	5	14000
436		17:00:00	13910	0	99	20.64	101.60	2520	39.2	68	670.213	5550.153	0.20	100	0.20	9.60	118.64	0.000	0.000	0.000	5	12000
437		17:30:00	13900	0	99	20.64	101.60	2520	39.2	68	670.213	5564.116	0.20	100	0.20	9.60	118.84	0.000	0.000	0.000	5	12000
438	1999/08/07	18:00:00	13900	0	98	20.64	101.60	2530	39.2	68	671.531	5578.093	0.20	100	0.20	9.60	119.04	0.000	0.000	0.000	5	12000
439		18:30:00	13900	0	98	20.64	101.60	2520	39.2	68	670.213	5592.069	0.15	100	0.15	7.20	119.19	0.000	0.000	0.000	5	16000
440		19:00:00	13900	0	98	20.64	101.60	2520	39.2	68	670.213	5606.032	0.25	100	0.25	12.00	119.44	0.000	0.000	0.000	5	14000
441		19:30:00	13900	0	98	20.64	101.60	2520	39.2	68	670.213	5619.995	0.25	100	0.25	12.00	119.69	0.000	0.000	0.000	5	16000
442		20:00:00	13900	0	97	20.64	101.60	2520	39.2	68	670.213	5633.957	0.15	100	0.15	7.20	119.84	0.000	0.000	0.000	5	16000
443		20:30:00	13900	0	98	20.64	101.60	2520	39.2	68	670.213	5647.920	0.30	100	0.30	14.40	120.14	0.000	0.000	0.000	5	16000
444		21:00:00	13890	0	96	20.64	101.60	2520	39.2	68	670.213	5661.883	0.25	100	0.25	12.00	120.39	0.000	0.000	0.000	5	16000
445		21:30:00	13890	0	96	20.64	101.60	2520	39.2	68	670.213	5675.846	0.25	100	0.25	12.00	120.64	0.000	0.000	0.000	5	16000
446		22:00:00	13890	0	96	20.64	101.60	2520	39.2	68	670.213	5689.809	0.20	100	0.20	9.60	120.84	0.000	0.000	0.000	5	16000
447		22:30:00	14000	0	96	20.64	101.60	2520	39.2	68	670.213	5703.771	0.25	100	0.25	12.00	121.09	0.000	0.000	0.000	5	16000
448		23:00:00	14000	0	96	20.64	101.60	2520	39.2	68	670.213	5717.734	0.25	100	0.25	12.00	121.34	0.000	0.000	0.000	5	16000
449		23:30:00	13880	0	96	20.64	101.60	2510	39.2	66	671.099	5731.706	0.25	100	0.25	12.00	121.59	0.000	0.000	0.000	5	14000
450	1999/08/08	00:00:00	13895	0	96	20.64	101.60	2510	39.2	66	671.099	5745.687	0.25	100	0.25	12.00	121.84	0.000	0.000	0.000	5	14000
451		00:30:00	13890	0	96	20.64	101.60	2510	39.2	68	668.892	5759.646	0.30	100	0.30	14.40	122.14	0.000	0.000	0.000	5	14000
452		01:00:00	13890	0	96	20.64	101.60	2510	39.2	68	668.892	5773.581	0.30	100	0.30	14.40	122.44	0.000	0.000	0.000	5	16000
453		01:30:00	13890	0	96	20.64	101.60	2510	39.2	68	668.892	5787.516	0.30	100	0.30	14.40	122.74	0.000	0.000	0.000	5	14000
454		02:00:00	13890	0	95	20.64	101.60	2510	39.2	67	669.993	5801.463	0.20	100	0.20	9.60	122.94	0.000	0.000	0.000	5	16000
455		02:30:00	13880	0	95	20.64	101.60	2510	39.2	67	669.993	5815.421	0.25	100	0.25	12.00	123.19	0.000	0.000	0.000	5	16000
456		03:00:00	13870	0	95	20.64	101.60	2510	39.2	67	669.993	5829.379	0.20	100	0.20	9.60	123.39	0.000	0.000	0.000	5	20000
457		03:30:00	13870	0	95	20.64	101.60	2510	39.2	67	669.993	5843.337	0.25	100	0.25	12.00	123.64	0.000	0.000	0.000	5	18000
458		04:00:00	13870	0	95	20.64	101.60	2510	39.2	67	669.993	5857.295	0.25	100	0.25	12.00	123.89	0.000	0.000	0.000	5	14000
459		04:30:00	13880	0	95	20.64	101.60	2510	39.2	67	669.993	5871.254	0.30	100	0.30	14.40	124.19	0.000	0.000	0.000	5	16000
460		05:00:00	13880	0	96	20.64	101.60	2510	39.2	67	669.993	5885.212	0.20	100	0.20	9.60	124.39	0.000	0.000	0.000	5	16000
461		05:30:00	13880	0	96	20.64	101.60	2510	39.2	67	669.993	5899.170	0.20	100	0.20	9.60	124.59	0.000	0.000	0.000	5	16000
462	1999/08/08	06:00:00	13870	0	96	20.64	101.60	2510	39.2	67	669.993	5913.128	0.25	100	0.25	12.00	124.84	0.000	0.000	0.000	5	16000
463		06:00:00	H2S by Kitagawa = 0.4%.																			
464		06:30:00	13880	0	96	20.64	101.60	2510	39.2	67	669.993	5927.086	0.20	100	0.20	9.60	125.04	0.000	0.000	0.000	5	14000
465		07:00:00	13870	0																		
466		07:30:00	13870	0	96	20.64	101.60	2500	39.0	68	665.859	5954.917	0.25	100	0.25	6.00	125.29	0.000	0.000	0.000	5	20000
467		08:00:00	13870	0	96	20.64	101.60	2500	39.0	68	665.859	5968.789	0.15	100	0.15	7.20	125.44	0.000	0.000	0.000	5	20000
468		08:30:00	13870	0	98	20.64	101.60	2500	39.0	68	665.859	5982.661	0.25	100	0.25	12.00	125.69	0.000	0.000	0.000	5	20000
469		09:00:00	13870	0	98	20.64	101.60	2500	39.0	68	665.859	5996.533	0.25	100	0.25	12.00	125.94	0.000	0.000	0.000	5	20000
470		09:30:00	13870	0	98	20.64	101.60	2500	39.0	68	665.859	6010.405	0.10	100	0.10	4.80	126.04	0.000	0.000	0.000	5	18000

	Clock	Tbg	Csg		Choke		Static	Diff	Meter	Gas	Cum.		H2O	H2O	Cum	Oil	Oil	Cum.				
Date	Time	Pres	Pres	WHT		Orifice	Pres	Pres	Temp	Rate	Gas	Gain	BSW	Gain	Rate	H2O	Gain	Rate	Oil	Ph	Salinity	
yyyy/mm/dhh:mm:ss		kPa(g)	kPa(g)	°C	mm	mm	kPa(g)	kPa	°C	10 ³ m ³ /d	10 ³ m ³	m ³	%	m ³	m ³ /d	m ³	m ³ /d	m ³			ppm	
471	1999/08/08	10:00:00	13870	0	98	20.64	101.60	2500	39.0	67	666.953	6024.288	0.25	100	0.25	12.00	126.29	0.000	0.000	0.000	5	18000
472		10:30:00	13870	0	98	20.64	101.60	2500	39.0	67	666.953	6038.183	0.35	100	0.35	16.80	126.64	0.000	0.000	0.000	5	16000
473		11:00:00	13870	0	98	20.64	101.60	2500	39.0	67	666.953	6052.078	0.25	100	0.25	12.00	126.89	0.000	0.000	0.000	5	18000
474		11:30:00	13850	0	98	20.64	101.60	2500	39.0	67	666.953	6065.973	0.30	100	0.30	14.40	127.19	0.000	0.000	0.000	5	16000
475	1999/08/08	12:00:00	13850	0	98	20.64	101.60	2500	39.0	67	666.953	6079.868	0.25	100	0.25	12.00	127.44	0.000	0.000	0.000	5	16000
476		12:30:00	13950	0	98	20.64	101.60	2500	39.0	67	666.953	6093.763	0.20	100	0.20	9.60	127.64	0.000	0.000	0.000	5	14000
477		13:00:00	13850	0	98	20.64	101.60	2500	39.0	67	666.953	6107.657	0.20	100	0.20	9.60	127.84	0.000	0.000	0.000	5	12000
478		13:30:00	13840	0	96	20.64	101.60	2500	39.0	67	666.953	6121.552	0.35	100	0.35	16.80	128.19	0.000	0.000	0.000	5	14000
479		14:00:00	13850	0	97	20.64	101.60	2500	39.0	67	666.953	6135.447	0.15	100	0.15	7.20	128.34	0.000	0.000	0.000	5	11000
480		14:30:00	13850	0	97	20.64	101.60	2500	39.0	67	666.953	6149.342	0.25	100	0.25	12.00	128.59	0.000	0.000	0.000	5	11000
481		15:00:00	13840	0	97	20.64	101.60	2500	39.0	67	666.953	6163.237	0.30	100	0.30	14.40	128.89	0.000	0.000	0.000	5	12000
482		15:30:00	13850	0	97	20.64	101.60	2500	39.0	67	666.953	6177.132	0.10	100	0.10	4.80	128.99	0.000	0.000	0.000	5	12000
483		16:00:00	13850	0	97	20.64	101.60	2500	39.0	67	666.953	6191.027	0.30	100	0.30	14.40	129.29	0.000	0.000	0.000	5	14000
484		16:30:00	13850	0	97	20.64	101.60	2500	39.0	67	666.953	6204.921	0.20	100	0.20	9.60	129.49	0.000	0.000	0.000	5	14000
485		17:00:00	13840	0	97	20.64	101.60	2500	39.0	67	666.953	6218.816	0.25	100	0.25	12.00	129.74	0.000	0.000	0.000	5	12000
486		17:30:00	13840	0	97	20.64	101.60	2500	39.0	67	666.953	6232.711	0.20	100	0.20	9.60	129.94	0.000	0.000	0.000	5	12000
487	1999/08/08	18:00:00	13840	0	97	20.64	101.60	2500	39.0	67	666.953	6246.606	0.25	100	0.25	12.00	130.19	0.000	0.000	0.000	5	12000
488		18:30:00	13840	0	97	20.64	101.60	2500	39.0	67	666.953	6260.501	0.25	100	0.25	12.00	130.44	0.000	0.000	0.000	5	16000
489		19:00:00	13840	0	96	20.64	101.60	2500	39.0	67	666.953	6274.396	0.25	100	0.25	12.00	130.69	0.000	0.000	0.000	5	16000
490		19:30:00	13840	0	95	20.64	101.60	2500	39.0	67	666.953	6288.291	0.30	100	0.30	14.40	130.99	0.000	0.000	0.000	5	16000
491		20:00:00	13840	0	95	20.64	101.60	2500	39.0	67	666.953	6302.186	0.15	100	0.15	7.20	131.14	0.000	0.000	0.000	5	12000
492		20:30:00	13840	0	95	20.64	101.60	2500	39.0	67	666.953	6316.080	0.30	100	0.30	14.40	131.44	0.000	0.000	0.000	5	14000
493		21:00:00	13840	0	95	20.64	101.60	2500	39.0	67	666.953	6329.975	0.30	100	0.30	14.40	131.74	0.000	0.000	0.000	5	14000
494		21:00:00	Shut in well, monitor buildups																			
495		21:01:00					0.00	0	0.0	0	0.000	6329.975	0.00	0	0.00	0.00	131.74	0.000	0.000	0.000		
496		21:05:00	19600	30																		
497		21:10:00	20000	30																		
498		21:15:00	20130	30																		
499		21:30:00	20340	125																		
500		21:45:00	20450	250																		
501		22:00:00	20480	275																		
502		22:30:00	20550	300																		
503		23:00:00	20560	350																		
504		23:30:00	20600	400																		
505	1999/08/09	00:00:00	20640	420																		
506		00:30:00	20660	420																		
507		01:00:00	20690	500																		
508		01:30:00	20690	500																		
509		02:00:00	20700	560																		
510		02:30:00	20700	600																		
511		03:00:00	20700	660																		
512		04:00:00	20740	780																		
513		05:00:00	20740	900																		
514		06:00:00	20740	1000																		
515		06:30:00	20740	1100																		
516		07:00:00	20750	1100																		
517		07:30:00	20750	1100																		

FieldNotes Field Measurements

	Clock	Tbg	Csg		Choke		Static	Diff	Meter	Gas	Cum.	Fld		H2O	H2O	Cum	Oil	Oil	Cum.		
Date	Time	Pres	Pres	WHT	Orifice	Pres	Pres	Temp	Rate	Gas	Gas	Gain	BSW	Gain	Rate	H2O	Gain	Rate	Oil	Ph	Salinity
yyyy/mm/dhh:mm:ss		kPa(g)	kPa(g)	°C	mm	mm	kPa(g)	kPa	°C	10 ³ m ³ /d	10 ³ m ³	m ³	%	m ³	m ³ /d	m ³	m ³	m ³ /d	m ³		ppm
518	1999/08/09	08:00:00	20780	1100																	
519		08:30:00	20780	1100																	
520		09:00:00	20780	1100																	
521		09:30:00	20780	1100																	
522		10:00:00	20800	1100																	
523		10:30:00	20800	1100																	
524		11:00:00	20800	1100																	
525		11:30:00	20810	1100																	
526		12:00:00	20815	1100																	
527		12:30:00	20820	1100																	
528		13:00:00	20830	1100																	
529		13:30:00	20835	1100																	
530		14:00:00	20840	1100																	
531		14:30:00	20845	1100																	
532		15:00:00	20850	1200																	
533		15:30:00	20850	1400																	
534		16:00:00	20850	1500																	
535		16:30:00	20880	1800																	
536		17:00:00	20910	2200																	
537		17:30:00	20935	2300																	
538	1999/08/09	18:00:00	20950	2350																	
539		18:00:00	End of test.																		

AGAT Laboratories**GAS ANALYSIS**

CONTAINER IDENTIFICATION

CX 5870

LABORATORY NUMBER

GG41644B

OPERATOR NAME

RANGER OIL LIMITED

UNIQUE WELL IDENTIFIER

WELL NAME

KB m ELEVATION GRD m

FIELD OR AREA

POOL OR ZONE

NAME OF SAMPLER

COMPANY

FORT LIARD**TIGHT HOLE****NORWARD**

TEST TYPE

NO

TEST RECOVERY

TEST INTERVAL OR PERFS

SAMPLING POINT

METER RUN

SEPARATOR	TREATER	RESERVOIR	SOURCE	SAMPLED	RECEIVED
			2500	2500	2275
			67	67	21

RAILUP PRESSURE kPa

TEMPERATURE °C

DATE SAMPLED (Y-M-D)

99-08-09

DATE RECEIVED (Y-M-D)

99-08-12

DATE RETURNED (Y-M-D)

99-08-19

ANALYST

LQ NCO

OTHER INFORMATION

P-66-A @ 21:00hrs

COMP	MOLE FRACTION		PETROLEUM LIQUID CONTENT mL · m ⁻³
	AIR FREE AS RECEIVED	AIR FREE ACID GAS FREE	
H ₂	0.0001	0.0002	
H ₂	0.0010	0.0013	
N ₂	0.0532	0.0644	
CO ₂	0.1695	0.0000	
H ₂ S	0.0045	0.0000	
C ₁	0.7716	0.9340	
C ₂	0.0001	0.0001	
C ₃	0.0000	0.0000	0.0
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 AND ACID GAS FREE

35.29

AIR FREE AS RECEIVED

29.28

VARIOUS PROCEDURE
PENTANES PLUS

0.0

kPa

RELATIVE DENSITY

MOISTURE FREE AS SAMPLED

MEASURED

CALCULATED

0.742

MOISTURE AND ACID GAS FREE

MEASURED

CALCULATED

0.580

PSEUDO CRITICAL PROPERTIES (CALCULATED)

AS SAMPLED

p_{Pc} (abs)

5026 kPa

p_{Tc}

207.0 K

ACID GAS FREE

p_{Pc} (abs)

4521 kPa

p_{Tc}

186.1 K

RELATIVE MOLECULAR MASS

TOTAL GAS

21.5

C₇ +

0.0

H₂S g/m³

6.46

REMARKS:

EXCEED NORMAL LIMITS : N₂ , CO₂
FIELD H₂S = 0.4%/LAB = 0.45%

Ranger Ft. Liard P-66-A

