



FINGERPRINT ANALYSIS BY CAPILLARY GAS CHROMATOGRAPHY

On Stock Tank Oil from atmospheric flash of sample in cylinder # 84062103 - Bottom Gas @ 3146.5 m

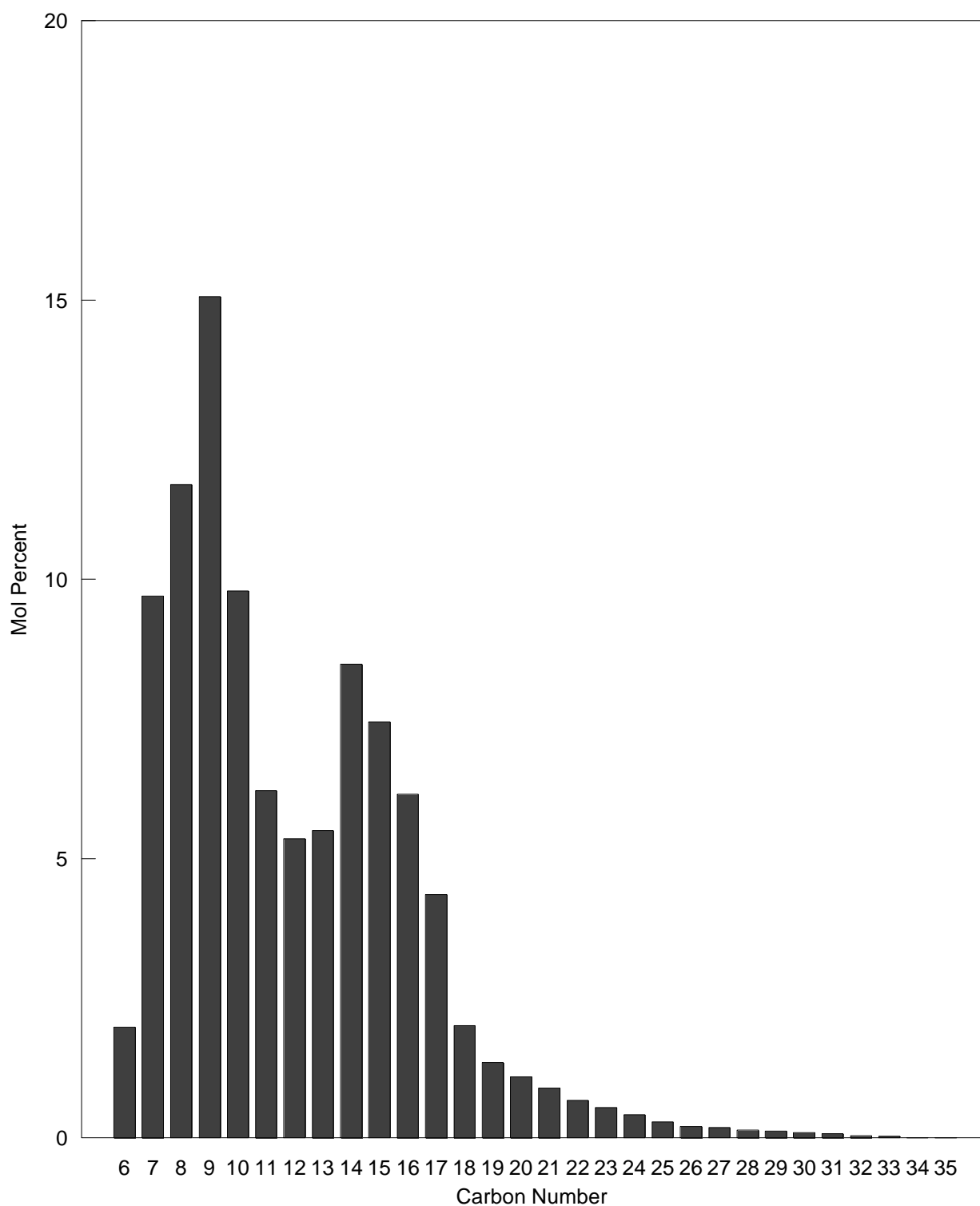
Component		Mol %
Hexanes minus	C6-	0.19
Hexanes	C6	1.98
Heptanes	C7	9.70
Octanes	C8	11.70
Nonanes	C9	15.06
Decanes	C10	9.79
Undecanes	C11	6.21
Dodecanes	C12	5.35
Tridecanes	C13	5.50
Tetradecanes	C14	8.48
Pentadecanes	C15	7.44
Hexadecanes	C16	6.15
Heptadecanes	C17	4.35
Octadecanes	C18	2.01
Nonadecanes	C19	1.34
Eicosanes	C20	1.09
Heneicosanes	C21	0.89
Docosanes	C22	0.67
Tricosanes	C23	0.54
Tetracosanes	C24	0.41
Pentacosanes	C25	0.28
Hexacosanes	C26	0.20
Heptacosanes	C27	0.18
Octacosanes	C28	0.14
Nonacosanes	C29	0.12
triacontanes	C30	0.09
Hentriacontanes	C31	0.07
Dotriacontanes	C32	0.04
Tritriacontanes	C33	0.03
Tetratriacontanes	C34	0.00
Pentatriacontanes Plus	C35+	0.00
TOTAL		100.00

Molecular Weight Calculated *	:	162.1
Density @ 60 °F Calculated *	:	0.8028
Molecular Weight Measured	:	--
Density @ 60 °F Measured	:	0.8028

*Calculation based on generalized properties as published by Katz and Firoozabadi

FINGERPRINT ANALYSIS BY CAPILLARY GAS CHROMATOGRAPHY

On Stock Tank Oil from atmospheric flash of sample in cylinder # 84062103 - Bottom Gas @ 3146.5 m



COMPOSITIONAL ANALYSIS OF RESERVOIR FLUID

Cylinder # 84062103 - Bottom Gas @ 3146.5 m

Component	Stock Tank		Reservoir
	Liquid	Gas	Fluid
	Mol %	Mol %	Mol %
Hydrogen Sulphide	H2S 0.00	0.00	0.00
Carbon Dioxide	CO2 0.06	3.89	3.73
Nitrogen	N2 0.00	0.30	0.29
Methane	C1 0.47	81.67	78.19
Ethane	C2 0.25	7.50	7.19
Propane	C3 0.39	3.24	3.12
Iso-Butane	iC4 0.14	0.48	0.47
N-Butane	nC4 0.37	0.87	0.85
Iso-Pentane	iC5 0.32	0.28	0.28
N-Pentane	nC5 0.42	0.29	0.30
Hexanes	C6 1.94	0.40	0.47
Heptanes	C7 9.48	0.62	1.00
Octanes	C8 11.44	0.31	0.79
Nonanes	C9 14.72	0.13	0.76
Decanes	C10 9.57	0.02	0.43
Undecanes	C11 6.07	0.00	0.26
Dodecanes Plus	C12+ 44.36	0.00	1.87
TOTAL	100.00	100.00	100.00

Ratios

Molar Ratio	:	0.0429	0.9571	1.0000
Mass Ratio	:	0.2511	0.7489	1.0000
Liquid Ratio (bbl/bbl)	:	1.0000 @ SC	--	6.4413 @ PT*
Gas Liquid Ratio	:	1.0000 bbl @ SC	14955 SCF	--

Stream Properties

Molecular Weight	:	158.8	21.23	27.13
Density obs. (gm/cc)	:	0.8003 @ 60 °F	--	0.4964 @ PT*
Gravity (AIR = 1.000)	:	45.1 °API @ 60 °F	0.735	153.3
GHV (BTU/scf)	:	--	1193	--

Hexanes Plus Properties

Mol %	:	97.58	1.48	5.58
Molecular Weight	:	161.6	97.8	145.4
Density (gm/cc @ 60 °F)	:	0.8033	0.6861	0.7806
Gravity (°API @ 60 °F)	:	44.5	74.5	49.6

Heptanes Plus Properties

Mol %	:	95.65	1.08	5.11
Molecular Weight	:	163.1	102.9	151.0
Density (gm/cc @ 60 °F)	:	0.8047	0.6928	0.7873
Gravity (°API @ 60 °F)	:	44.2	72.5	48.1

Decanes Plus Properties

Mol %	:	60.00	0.02	2.56
Molecular Weight	:	194.8	133.9	194.3
Density (gm/cc @ 60 °F)	:	0.8257	0.7277	0.8252
Gravity (°API @ 60 °F)	:	39.7	62.8	39.8

Undecanes Plus Properties

Mol %	:	50.43	0.00	2.13
Molecular Weight	:	206.3	--	206.3
Density (gm/cc @ 60 °F)	:	0.8320	--	0.8320
Gravity (°API @ 60 °F)	:	38.4	--	38.4

Dodecanes Plus Properties

Mol %	:	44.36	0.00	1.87
Molecular Weight	:	214.4	--	214.4
Density (gm/cc @ 60 °F)	:	0.8363	--	0.8363
Gravity (°API @ 60 °F)	:	37.5	--	37.5

* (P)ressure : 6000 psig * (T)emperature : 81 °F

DEW POINT PRESSURE : 5150 @ 118 ° C

FINGERPRINT ANALYSIS BY CAPILLARY GAS CHROMATOGRAPHY

On Stock Tank Oil from atmospheric flash of sample in cylinder # 89032109 - Middle Gas @ 3120.5 m

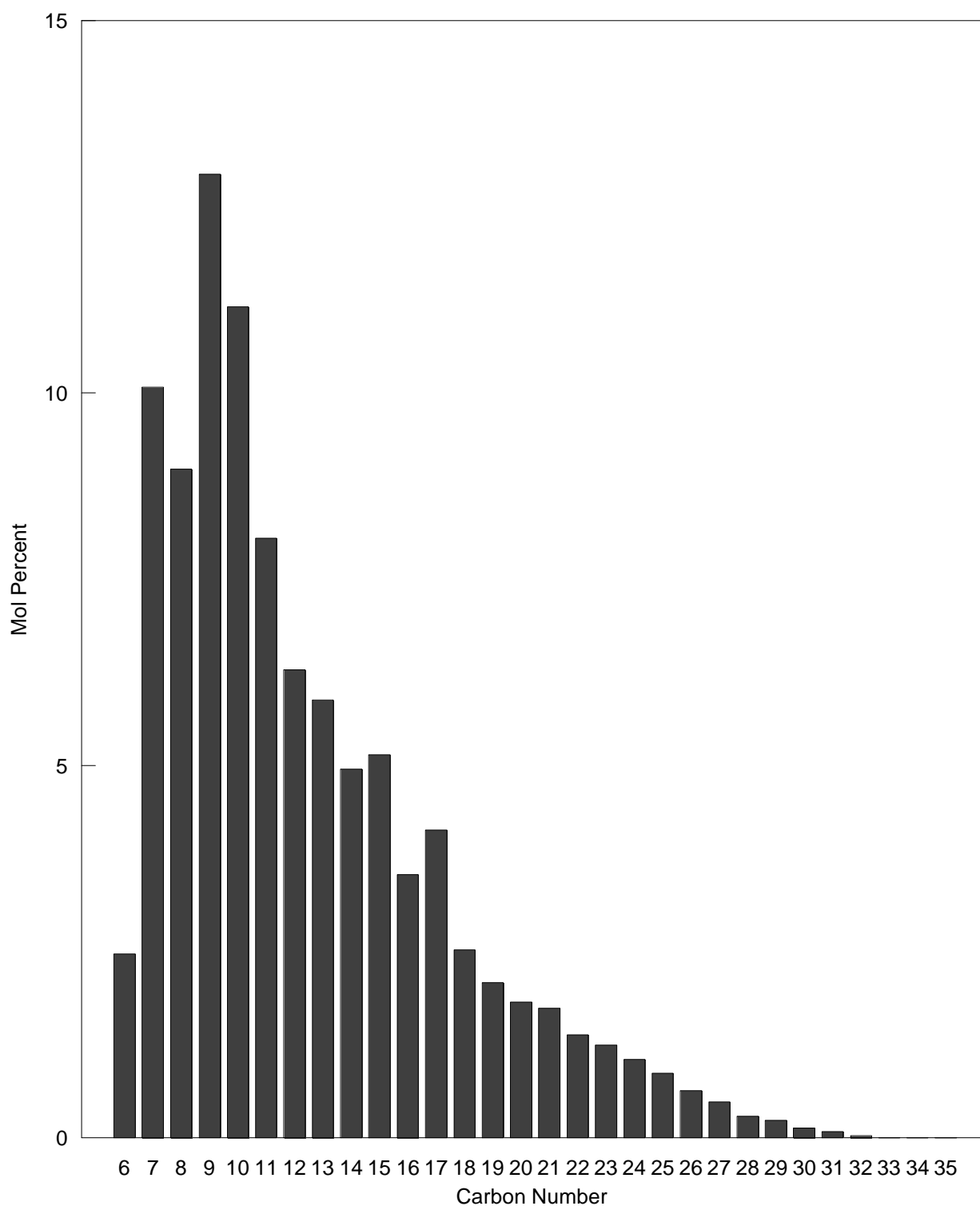
Component		Mol %
Hexanes minus	C6-	1.84
Hexanes	C6	2.47
Heptanes	C7	10.08
Octanes	C8	8.98
Nonanes	C9	12.94
Decanes	C10	11.16
Undecanes	C11	8.05
Dodecanes	C12	6.28
Tridecanes	C13	5.88
Tetradecanes	C14	4.95
Pentadecanes	C15	5.14
Hexadecanes	C16	3.53
Heptadecanes	C17	4.13
Octadecanes	C18	2.52
Nonadecanes	C19	2.08
Eicosanes	C20	1.82
Heneicosanes	C21	1.74
Docosanes	C22	1.38
Tricosanes	C23	1.24
Tetracosanes	C24	1.05
Pentacosanes	C25	0.87
Hexacosanes	C26	0.63
Heptacosanes	C27	0.48
Octacosanes	C28	0.29
Nonacosanes	C29	0.23
Triacosanes	C30	0.13
Hentriacontanes	C31	0.08
Dotriacontanes	C32	0.03
Tritriacontanes	C33	0.00
Tetratriacontanes	C34	0.00
Pentatriacontanes Plus	C35+	0.00
TOTAL		100.00

Molecular Weight Calculated *	:	167.2
Density @ 60 °F Calculated *	:	0.8065
Molecular Weight Measured	:	--
Density @ 60 °F Measured	:	0.8065

*Calculation based on generalized properties as published by Katz and Firoozabadi

FINGERPRINT ANALYSIS BY CAPILLARY GAS CHROMATOGRAPHY

On Stock Tank Oil from atmospheric flash of sample in cylinder # 89032109 - Middle Gas @ 3120.5 m



COMPOSITIONAL ANALYSIS OF RESERVOIR FLUID

Cylinder # 89032109 - Middle Gas @ 3120.5 m

Component	Stock Tank		Stock Tank		Reservoir
	Liquid	Mol %	Gas	Mol %	Fluid
					Mol %
Hydrogen Sulphide	H2S	0.00	0.00		0.00
Carbon Dioxide	CO2	0.26	17.73		17.55
Nitrogen	N2	0.00	0.15		0.15
Methane	C1	0.41	70.26		69.52
Ethane	C2	0.21	5.93		5.87
Propane	C3	0.36	2.82		2.79
Iso-Butane	iC4	0.16	0.49		0.49
N-Butane	nC4	0.37	0.79		0.79
Iso-Pentane	iC5	0.35	0.28		0.28
N-Pentane	nC5	0.42	0.26		0.26
Hexanes	C6	2.45	0.38		0.40
Heptanes	C7	10.01	0.56		0.66
Octanes	C8	8.92	0.22		0.31
Nonanes	C9	12.85	0.11		0.24
Decanes	C10	11.08	0.02		0.14
Undecanes	C11	7.99	0.00		0.08
Dodecanes Plus	C12+	44.16	0.00		0.47
TOTAL		100.00	100.00		100.00

Ratios

Molar Ratio	:	0.0106	0.9894	1.0000
Mass Ratio	:	0.0672	0.9328	1.0000
Liquid Ratio (bbl/bbl)	:	1.0000 @ SC	--	23.6829 @ PT*
Gas Liquid Ratio	:	1.0000 bbl @ SC	60660 SCF	--

Stream Properties

Molecular Weight	:	165.5	24.53	26.02
Density obs. (gm/cc)	:	0.8062 @ 60 °F	--	0.5085 @ PT*
Gravity (AIR = 1.000)	:	43.8 °API @ 60 °F	0.850	146.5
GHV (BTU/scf)	:	--	1024	--

Hexanes Plus Properties

Mol %	:	97.46	1.29	2.30
Molecular Weight	:	168.5	97.1	129.0
Density (gm/cc @ 60 °F)	:	0.8090	0.6852	0.7524
Gravity (°API @ 60 °F)	:	43.2	74.8	56.4

Heptanes Plus Properties

Mol %	:	95.01	0.91	1.90
Molecular Weight	:	170.7	102.5	138.5
Density (gm/cc @ 60 °F)	:	0.8108	0.6924	0.7650
Gravity (°API @ 60 °F)	:	42.8	72.7	53.3

Decanes Plus Properties

Mol %	:	63.23	0.02	0.69
Molecular Weight	:	201.6	133.9	199.7
Density (gm/cc @ 60 °F)	:	0.8302	0.7277	0.8280
Gravity (°API @ 60 °F)	:	38.8	62.8	39.2

Undecanes Plus Properties

Mol %	:	52.15	0.00	0.55
Molecular Weight	:	216.0	--	216.0
Density (gm/cc @ 60 °F)	:	0.8376	--	0.8376
Gravity (°API @ 60 °F)	:	37.3	--	37.3

Dodecanes Plus Properties

Mol %	:	44.16	0.00	0.47
Molecular Weight	:	228.5	--	228.5
Density (gm/cc @ 60 °F)	:	0.8437	--	0.8437
Gravity (°API @ 60 °F)	:	36.1	--	36.1

* (P)ressure : 6000 psig * (T)emperature : 81 °F

DEW POINT PRESSURE : 4520 @ 117 ° C



FINGERPRINT ANALYSIS BY CAPILLARY GAS CHROMATOGRAPHY

On Stock Tank Oil from atmospheric flash of sample in cylinder # 84062404 - Top Gas @ 3109 m

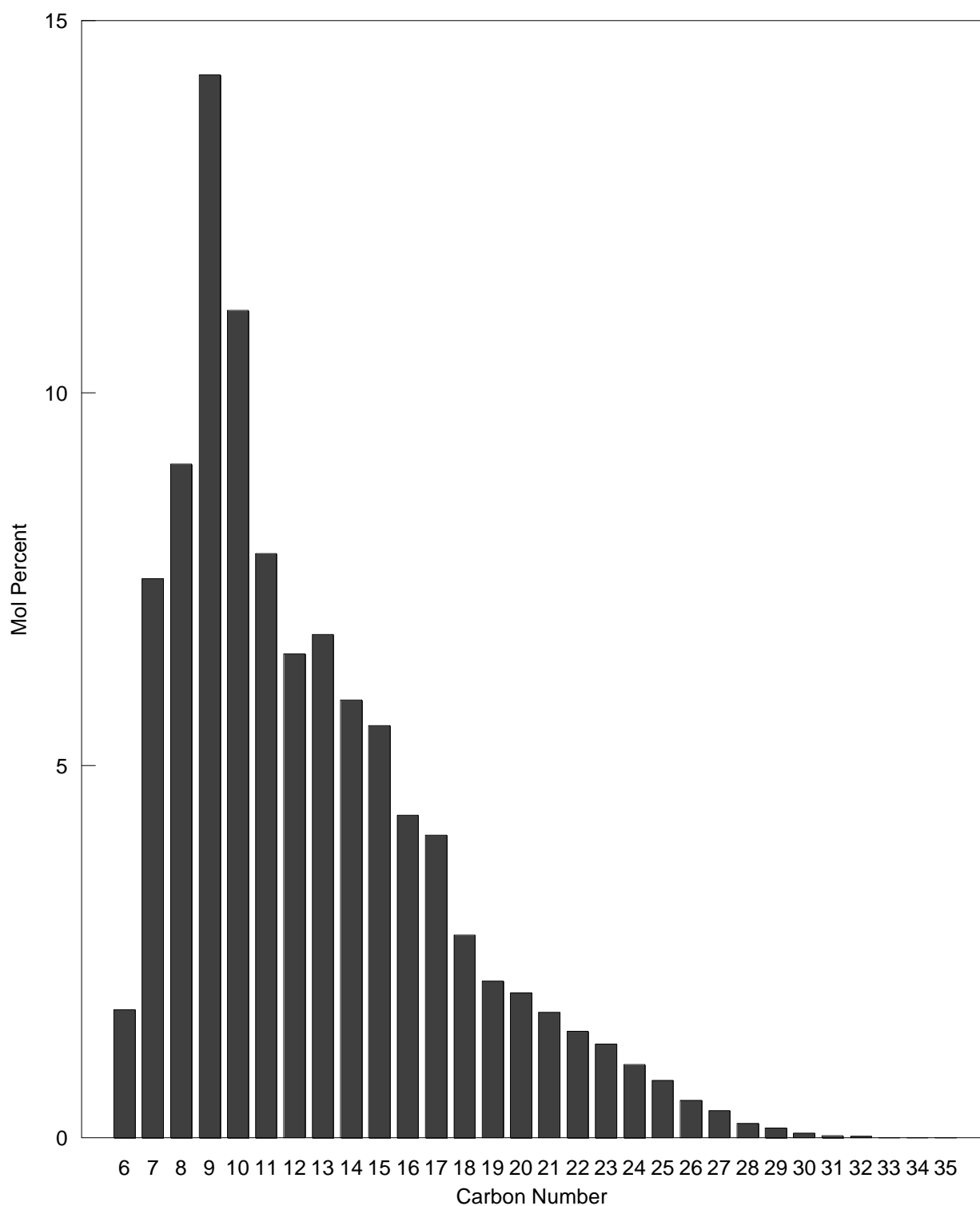
Component	Mol %	
Hexanes minus	C6-	1.27
Hexanes	C6	1.72
Heptanes	C7	7.51
Octanes	C8	9.05
Nonanes	C9	14.27
Decanes	C10	11.11
Undecanes	C11	7.84
Dodecanes	C12	6.50
Tridecanes	C13	6.76
Tetradecanes	C14	5.88
Pentadecanes	C15	5.53
Hexadecanes	C16	4.33
Heptadecanes	C17	4.06
Octadecanes	C18	2.72
Nonadecanes	C19	2.10
Eicosanes	C20	1.94
Heneicosanes	C21	1.68
Docosanes	C22	1.43
Tricosanes	C23	1.26
Tetracosanes	C24	0.98
Pentacosanes	C25	0.77
Hexacosanes	C26	0.50
Heptacosanes	C27	0.36
Octacosanes	C28	0.19
Nonacosanes	C29	0.13
triacontanes	C30	0.06
Hentriacontanes	C31	0.03
Dotriacontanes	C32	0.02
Tritriacontanes	C33	0.00
Tetratriacontanes	C34	0.00
Pentatriacontanes Plus	C35+	0.00
TOTAL		100.00

Molecular Weight Calculated *	:	169.2
Density @ 60 °F Calculated *	:	0.8082
Molecular Weight Measured	:	--
Density @ 60 °F Measured	:	0.8082

*Calculation based on generalized properties as published by Katz and Firoozabadi

FINGERPRINT ANALYSIS BY CAPILLARY GAS CHROMATOGRAPHY

On Stock Tank Oil from atmospheric flash of sample in cylinder # 84062404 - Top Gas @ 3109 m



COMPOSITIONAL ANALYSIS OF RESERVOIR FLUID

Cylinder # 84062404 - Top Gas @ 3109 m

Component	Stock Tank		Stock Tank		Reservoir
	Liquid	Mol %	Gas	Mol %	Fluid
Hydrogen Sulphide	H2S	0.00	0.00	0.00	0.00
Carbon Dioxide	CO2	0.26	17.59	17.44	17.44
Nitrogen	N2	0.00	0.12	0.12	0.12
Methane	C1	0.42	71.15	70.52	70.52
Ethane	C2	0.20	5.75	5.70	5.70
Propane	C3	0.31	2.42	2.40	2.40
Iso-Butane	iC4	0.13	0.39	0.39	0.39
N-Butane	nC4	0.31	0.67	0.67	0.67
Iso-Pentane	iC5	0.27	0.22	0.22	0.22
N-Pentane	nC5	0.35	0.22	0.22	0.22
Hexanes	C6	1.70	0.33	0.34	0.34
Heptanes	C7	7.43	0.57	0.63	0.63
Octanes	C8	8.96	0.32	0.40	0.40
Nonanes	C9	14.13	0.19	0.31	0.31
Decanes	C10	11.00	0.05	0.15	0.15
Undecanes	C11	7.76	0.01	0.08	0.08
Dodecanes Plus	C12+	46.76	0.00	0.41	0.41
TOTAL		100.00	100.00	100.00	100.00

Ratios

Molar Ratio	:	0.0089	0.9911	1.0000
Mass Ratio	:	0.0579	0.9421	1.0000
Liquid Ratio (bbl/bbl)	:	1.0000 @ SC	--	27.6314 @ PT*
Gas Liquid Ratio	:	1.0000 bbl @ SC	71567 SCF	--

Stream Properties

Molecular Weight	:	167.2	24.40	25.67
Density obs. (gm/cc)	:	0.8075 @ 60 °F	--	0.5064 @ PT*
Gravity (AIR = 1.000)	:	43.6 °API @ 60 °F	0.845	147.6
GHV (BTU/scf)	:	--	1021	--

Hexanes Plus Properties

Mol %	:	97.74	1.47	2.32
Molecular Weight	:	170.0	100.6	126.5
Density (gm/cc @ 60 °F)	:	0.8100	0.6899	0.7454
Gravity (°API @ 60 °F)	:	43.0	73.4	58.2

Heptanes Plus Properties

Mol %	:	96.04	1.14	1.98
Molecular Weight	:	171.5	105.4	133.8
Density (gm/cc @ 60 °F)	:	0.8112	0.6960	0.7552
Gravity (°API @ 60 °F)	:	42.8	71.6	55.7

Decanes Plus Properties

Mol %	:	65.52	0.06	0.64
Molecular Weight	:	199.8	136.1	193.7
Density (gm/cc @ 60 °F)	:	0.8289	0.7299	0.8216
Gravity (°API @ 60 °F)	:	39.0	62.2	40.6

Undecanes Plus Properties

Mol %	:	54.52	0.01	0.49
Molecular Weight	:	213.1	146.9	211.7
Density (gm/cc @ 60 °F)	:	0.8359	0.7399	0.8344
Gravity (°API @ 60 °F)	:	37.6	59.6	37.9

Dodecanes Plus Properties

Mol %	:	46.76	0.00	0.41
Molecular Weight	:	224.0	--	224.0
Density (gm/cc @ 60 °F)	:	0.8413	--	0.8413
Gravity (°API @ 60 °F)	:	36.5	--	36.5

* (P)ressure : 6000 psig * (T)emperature : 81 °F

DEW POINT PRESSURE : 4820 @ 117 ° C



Company : Esso Australia Limited
Well : Scallop # 1

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Room Temperature Validity Check On Bottom Hole Sample

Saturation Pressure : 3385 psig @ 26 ° C

Sample # 7a

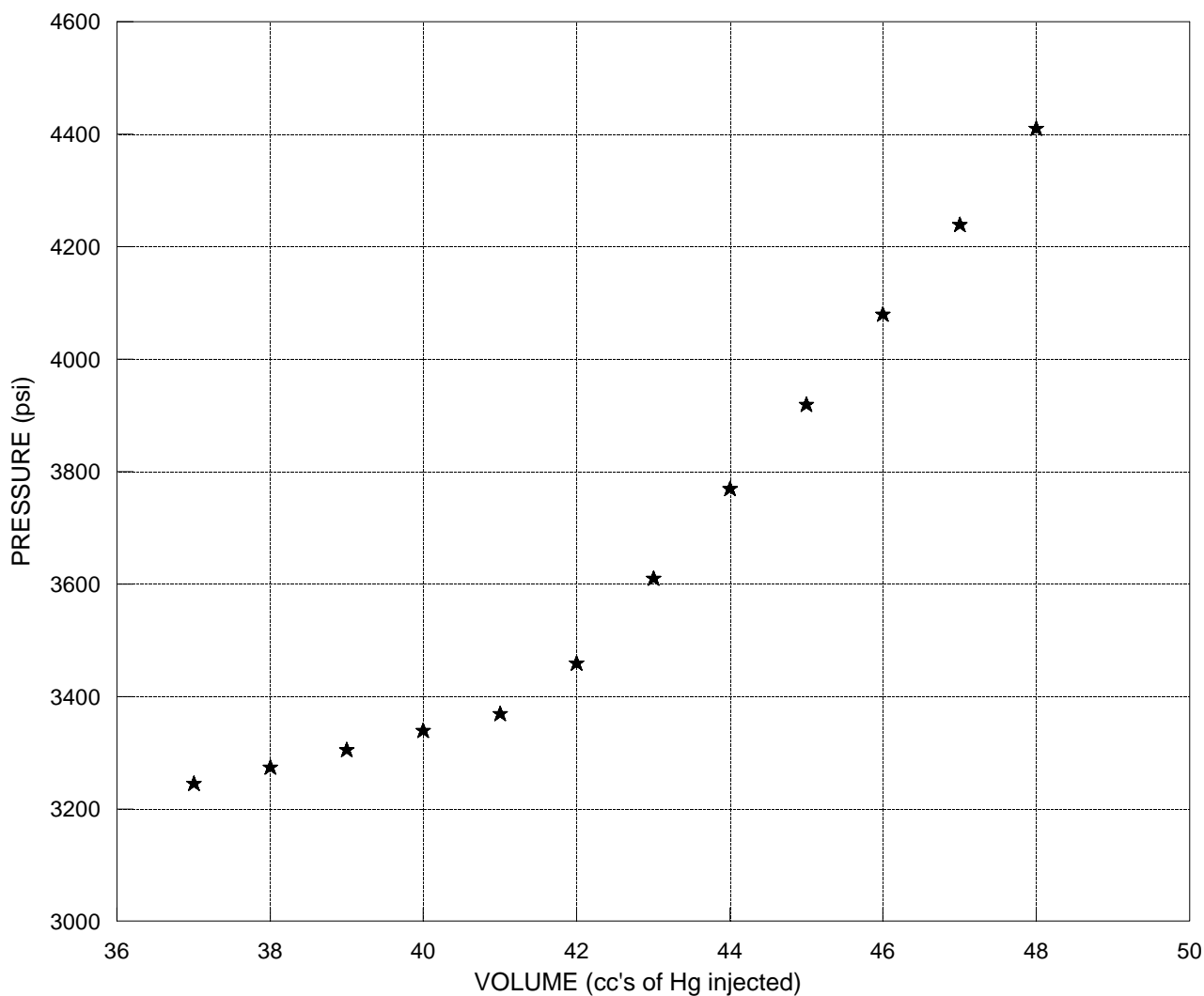
Sampling Conditions

Date	:	February 25, 2003
Reservoir Pressure	:	4093.2 psia
Reservoir Temperature	:	109.3 ° C

Sampler ID	:	MDT - BA 36
Volume	:	1 Gallon
Depth	:	2840 m

Tranferred into Cylinder #	:	84062601
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Volume (cc's)	Pressure (psi)
48.00	4410
47.00	4240
46.00	4080
45.00	3920
44.00	3770
43.00	3610
42.00	3460
41.00	3370
40.00	3340
39.00	3305
38.00	3275
37.00	3245





Company : Esso Australia Limited
Well : Scallop # 1

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Room Temperature Validity Check On Bottom Hole Sample

Saturation Pressure : 3380 psig @ 26 ° C

Sample # 7b

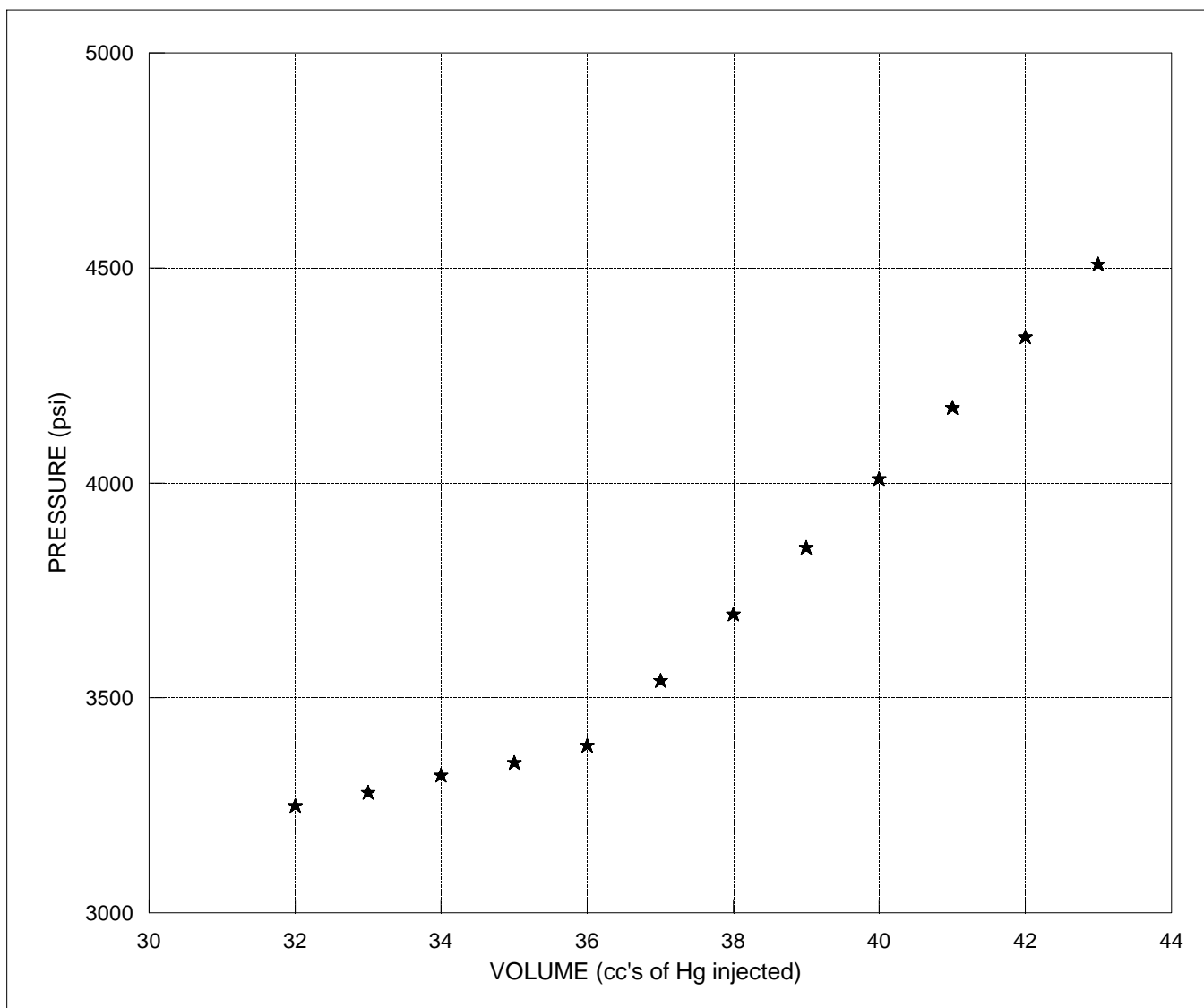
Sampling Conditions

Date	:	February 25, 2003
Reservoir Pressure	:	4093.2 psia
Reservoir Temperature	:	109.3 ° C

Sampler ID	:	MDT - BA 36
Volume	:	1 Gallon
Depth	:	2840 m

Tranferred into Cylinder #	:	84103217
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Volume (cc's)	Pressure (psi)
43.00	4510
42.00	4340
41.00	4175
40.00	4010
39.00	3850
38.00	3695
37.00	3540
36.00	3390
35.00	3350
34.00	3320
33.00	3280
32.00	3250





Company : Esso Australia Limited
Well : Scallop # 1

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Room Temperature Validity Check On Bottom Hole Sample

Saturation Pressure : 3390 psig @ 26 ° C

Sample # 7c

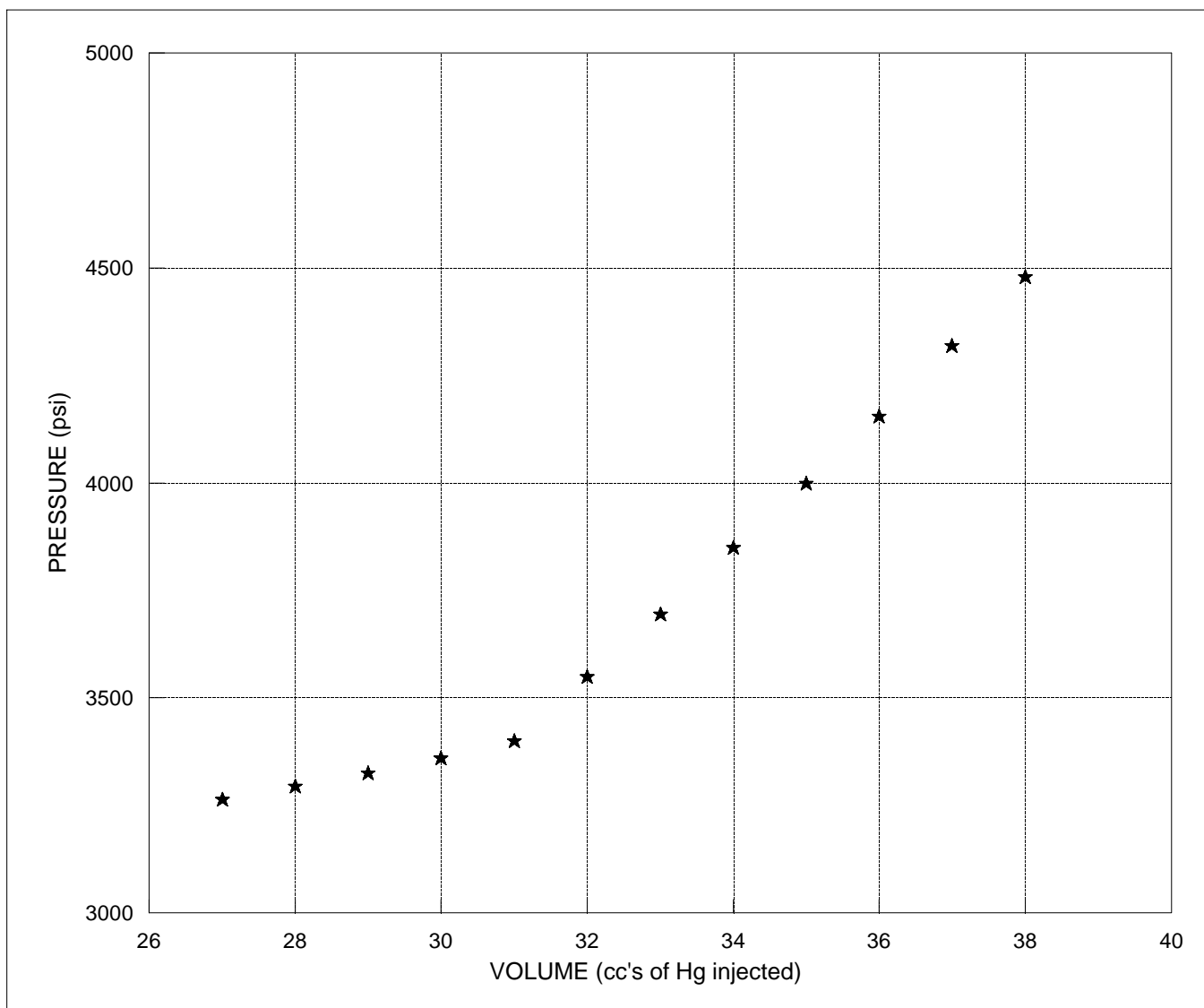
Sampling Conditions

Date	:	February 25, 2003
Reservoir Pressure	:	4093.2 psia
Reservoir Temperature	:	109.3 ° C

Sampler ID	:	MDT - BA 36
Volume	:	1 Gallon
Depth	:	2840 m

Tranferred into Cylinder #	:	84093202
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Volume (cc's)	Pressure (psi)
38.00	4480
37.00	4320
36.00	4155
35.00	4000
34.00	3850
33.00	3695
32.00	3550
31.00	3400
30.00	3360
29.00	3325
28.00	3295
27.00	3265





Company : Esso Australia Limited
Well : Scallop # 1

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File : E - 23004

Room Temperature Validity Check On Bottom Hole Sample

Saturation Pressure : 3385 psig @ 26 ° C

Sample # 7d

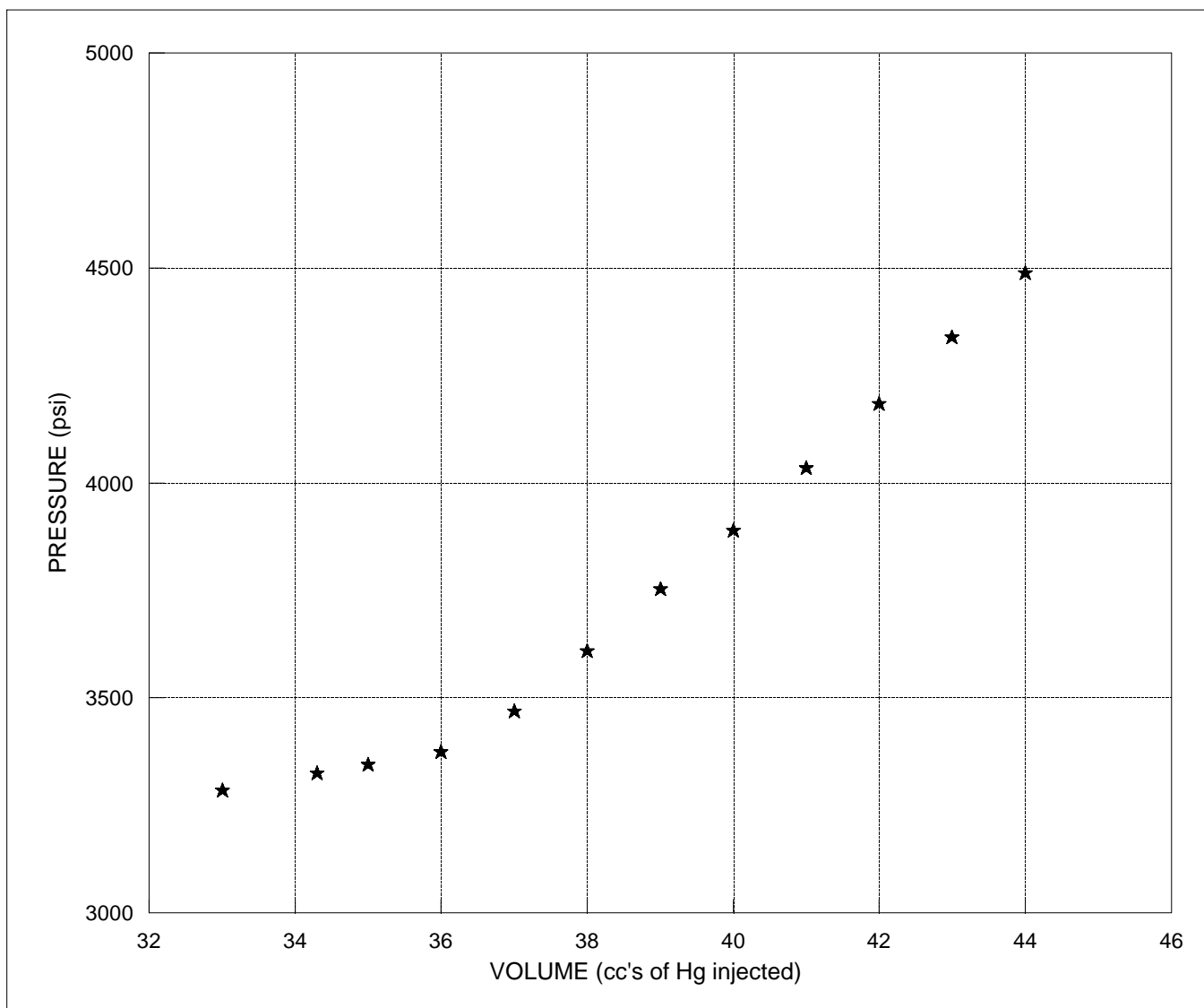
Sampling Conditions

Date	:	February 25, 2003
Reservoir Pressure	:	4093.2 psia
Reservoir Temperature	:	109.3 ° C

Sampler ID	:	MDT - BA 36
Volume	:	1 Gallon
Depth	:	2840 m

Tranferred into Cylinder #	:	84063609
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Volume (cc's)	Pressure (psi)
44.00	4490
43.00	4340
42.00	4185
41.00	4035
40.00	3890
39.00	3755
38.00	3610
37.00	3470
36.00	3375
35.00	3345
34.30	3325
33.00	3285





Company : Esso Australia Limited
Well : Scallop # 1

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Reservoir Temperature Validity Check On Bottom Hole Sample

Saturation Pressure : 3960 psig @ 109 ° C

Sample # 7a

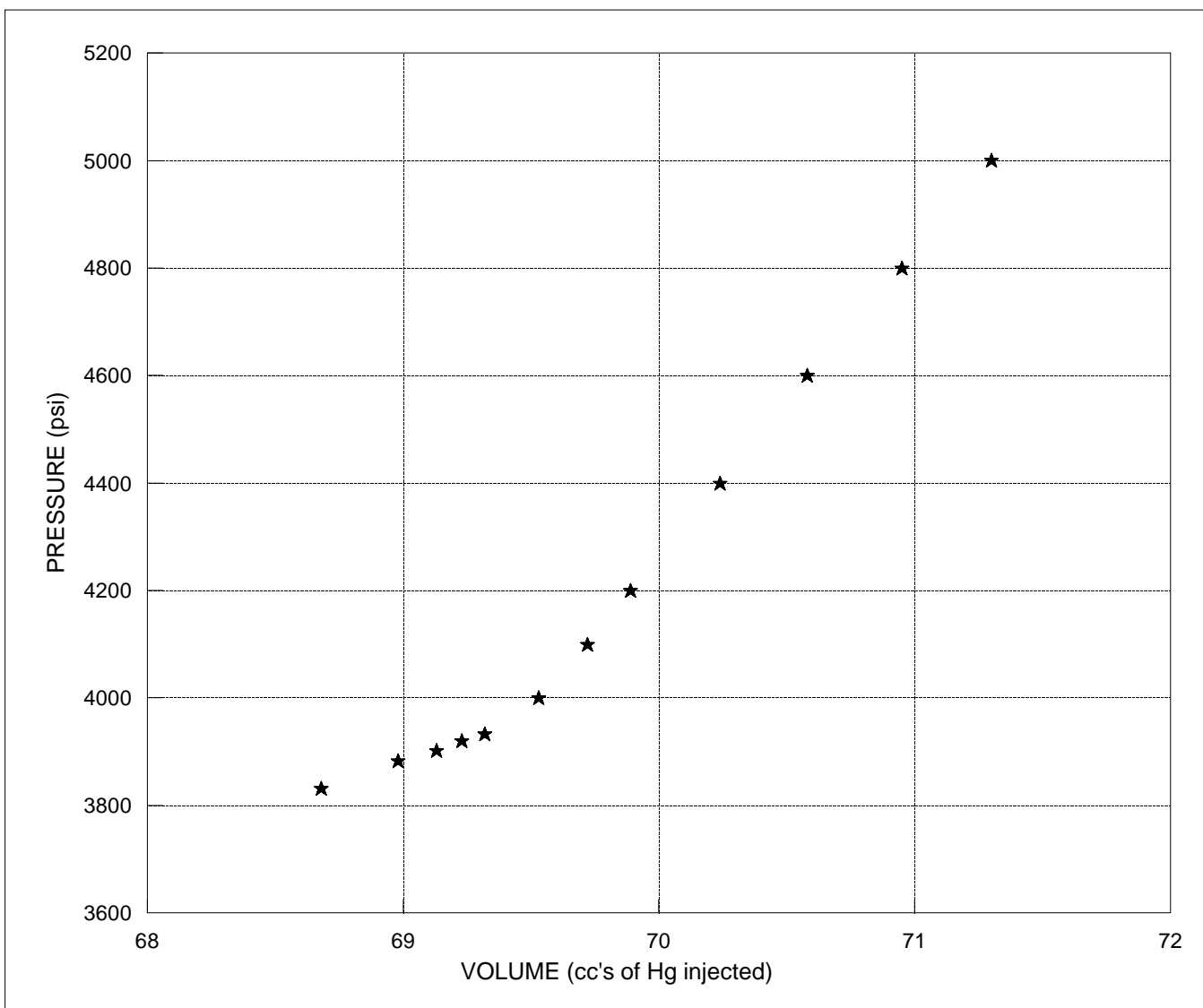
Sampling Conditions

Date	:	February 25, 2003
Reservoir Pressure	:	4093.2 psia
Reservoir Temperature	:	109.3 ° C

Sampler ID	:	MDT - BA 36
Volume	:	1 Gallon
Depth	:	2840 m

Tranferred into Cylinder #	:	84062601
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Volume (cc's)	Pressure (psi)
71.30	5000
70.95	4800
70.58	4600
70.24	4400
69.89	4200
69.72	4100
69.53	4000
69.32	3933
69.23	3920
69.13	3902
68.98	3883
68.68	3832



FINGERPRINT ANALYSIS BY CAPILLARY GAS CHROMATOGRAPHY

On Stock Tank Oil from atmospheric flash of sample in cylinder # 84062601 - Bottom Oil @ 2840 m

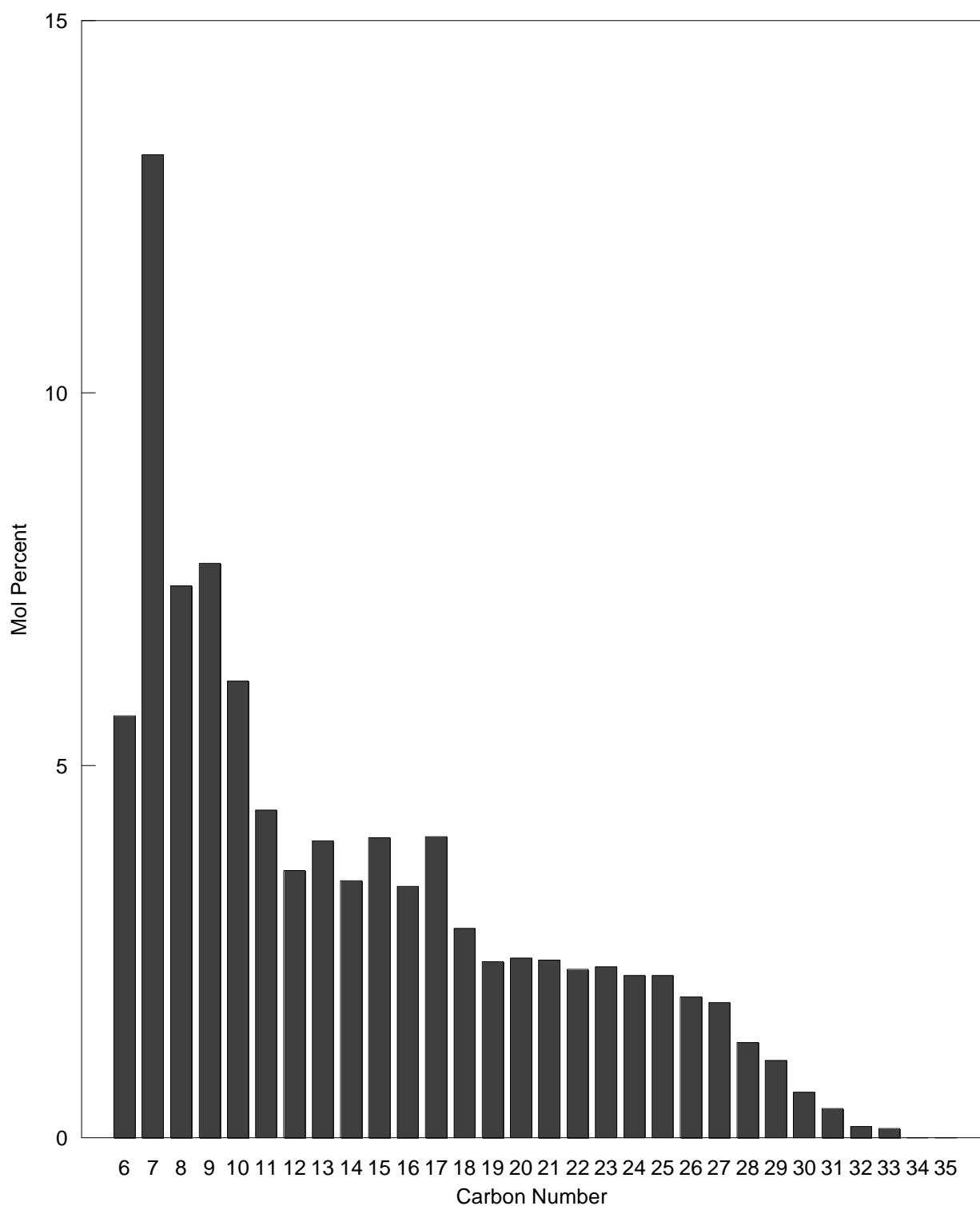
Component	Mol %	
Hexanes minus	C6-	6.85
Hexanes	C6	5.66
Heptanes	C7	13.20
Octanes	C8	7.41
Nonanes	C9	7.71
Decanes	C10	6.13
Undecanes	C11	4.40
Dodecanes	C12	3.59
Tridecanes	C13	3.99
Tetradecanes	C14	3.45
Pentadecanes	C15	4.03
Hexadecanes	C16	3.37
Heptadecanes	C17	4.04
Octadecanes	C18	2.81
Nonadecanes	C19	2.36
Eicosanes	C20	2.41
Heneicosanes	C21	2.38
Docosanes	C22	2.26
Tricosanes	C23	2.30
Tetracosanes	C24	2.18
Pentacosanes	C25	2.18
Hexacosanes	C26	1.89
Heptacosanes	C27	1.81
Octacosanes	C28	1.28
Nonacosanes	C29	1.04
Triacosanes	C30	0.61
Hentriacontanes	C31	0.39
Dotriacontanes	C32	0.15
Tritriacontanes	C33	0.12
Tettratriacontanes	C34	0.00
Pentatriacontanes Plus	C35+	0.00
TOTAL		100.00

Molecular Weight Calculated *	:	182.5
Density @ 60 °F Calculated *	:	0.8168
Molecular Weight Measured	:	--
Density @ 60 °F Measured	:	0.8215

*Calculation based on generalized properties as published by Katz and Firoozabadi

FINGERPRINT ANALYSIS BY CAPILLARY GAS CHROMATOGRAPHY

On Stock Tank Oil from atmospheric flash of sample in cylinder # 84062601 - Bottom Oil @ 2840 m



COMPOSITIONAL ANALYSIS OF RESERVOIR FLUID

Cylinder # 84062601 - Bottom Oil @ 2840 m

Component	Stock Tank		Stock Tank		Reservoir
	Liquid	Mol %	Gas	Mol %	Fluid
					Mol %
Hydrogen Sulphide	H2S	0.00	0.00	0.00	0.00
Carbon Dioxide	CO2	0.05	3.14	2.20	2.20
Nitrogen	N2	0.00	0.15	0.10	0.10
Methane	C1	0.42	70.65	49.41	49.41
Ethane	C2	0.37	10.34	7.32	7.32
Propane	C3	1.00	7.70	5.67	5.67
Iso-Butane	iC4	0.48	1.46	1.16	1.16
N-Butane	nC4	1.36	2.87	2.41	2.41
Iso-Pentane	iC5	1.19	0.94	1.02	1.02
N-Pentane	nC5	1.50	0.92	1.10	1.10
Hexanes	C6	5.69	0.92	2.36	2.36
Heptanes	C7	13.27	0.71	4.51	4.51
Octanes	C8	7.45	0.14	2.35	2.35
Nonanes	C9	7.75	0.05	2.38	2.38
Decanes	C10	6.16	0.01	1.87	1.87
Undecanes	C11	4.42	0.00	1.34	1.34
Dodecanes Plus	C12+	48.90	0.00	14.80	14.80
TOTAL		100.00	100.00	100.00	100.00

Ratios

Molar Ratio	:	0.3024	0.6976	1.0000
Mass Ratio	:	0.7613	0.2387	1.0000
Liquid Ratio (bbl/bbl)	:	1.0000 @ SC	--	1.8489 @ PT*
Gas Liquid Ratio	:	1.0000 bbl @ SC	1375 SCF	--

Stream Properties

Molecular Weight	:	182.5	24.80	72.49
Density obs. (gm/cc)	:	0.8179 @ 60 °F	--	0.5819 @ PT*
Gravity (AIR = 1.000)	:	41.3 °API @ 60 °F	0.860	111.4
GHV (BTU/scf)	:	--	1409	--

Hexanes Plus Properties

Mol %	:	93.64	1.83	29.61
Molecular Weight	:	191.0	91.7	186.7
Density (gm/cc @ 60 °F)	:	0.8251	0.6776	0.8213
Gravity (°API @ 60 °F)	:	39.8	77.1	40.6

Heptanes Plus Properties

Mol %	:	87.96	0.91	27.25
Molecular Weight	:	197.9	99.5	195.6
Density (gm/cc @ 60 °F)	:	0.8298	0.6884	0.8277
Gravity (°API @ 60 °F)	:	38.9	73.8	39.3

Decanes Plus Properties

Mol %	:	59.49	0.01	18.01
Molecular Weight	:	242.1	133.9	242.1
Density (gm/cc @ 60 °F)	:	0.8511	0.7277	0.8511
Gravity (°API @ 60 °F)	:	34.6	62.8	34.6

Undecanes Plus Properties

Mol %	:	53.32	0.00	16.14
Molecular Weight	:	254.6	--	254.6
Density (gm/cc @ 60 °F)	:	0.8560	--	0.8560
Gravity (°API @ 60 °F)	:	33.6	--	33.6

Dodecanes Plus Properties

Mol %	:	48.90	0.00	14.80
Molecular Weight	:	264.3	--	264.3
Density (gm/cc @ 60 °F)	:	0.8597	--	0.8597
Gravity (°API @ 60 °F)	:	32.9	--	32.9

* (P)ressure : 3960 psig * (T)emperature : 229 °F



Company : Esso Australia Limited
Well : Scallop # 1

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Room Temperature Validity Check On Bottom Hole Sample

Saturation Pressure : 4010 psig @ 26 ° C

Sample # 8

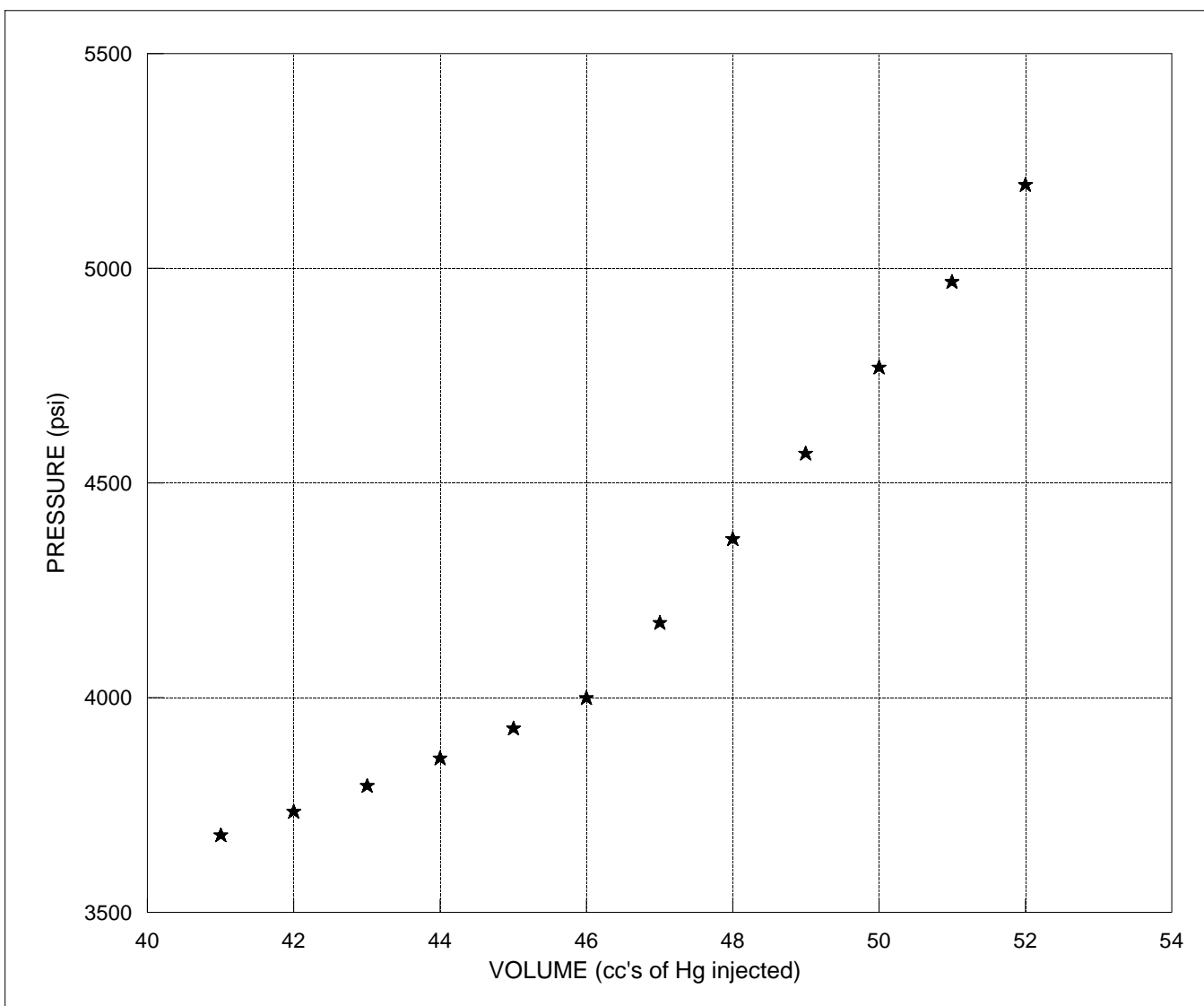
Sampling Conditions

Date	:	February 25, 2003
Reservoir Pressure	:	4092.7 psia
Reservoir Temperature	:	108.07 ° C

Sampler ID	:	MPSR - 136
Volume	:	450 cc
Depth	:	2840 m

Tranferred into Cylinder #	:	84032809
----------------------------	---	----------

Volume (cc's)	Pressure (psi)
52.00	5195
51.00	4970
50.00	4770
49.00	4570
48.00	4370
47.00	4175
46.00	4000
45.00	3930
44.00	3860
43.00	3795
42.00	3735
41.00	3680





Company : Esso Australia Limited
Well : Scallop # 1

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Reservoir Temperature Validity Check On Bottom Hole Sample

Saturation Pressure : 4525 psig @ 108 ° C

Sample # 8

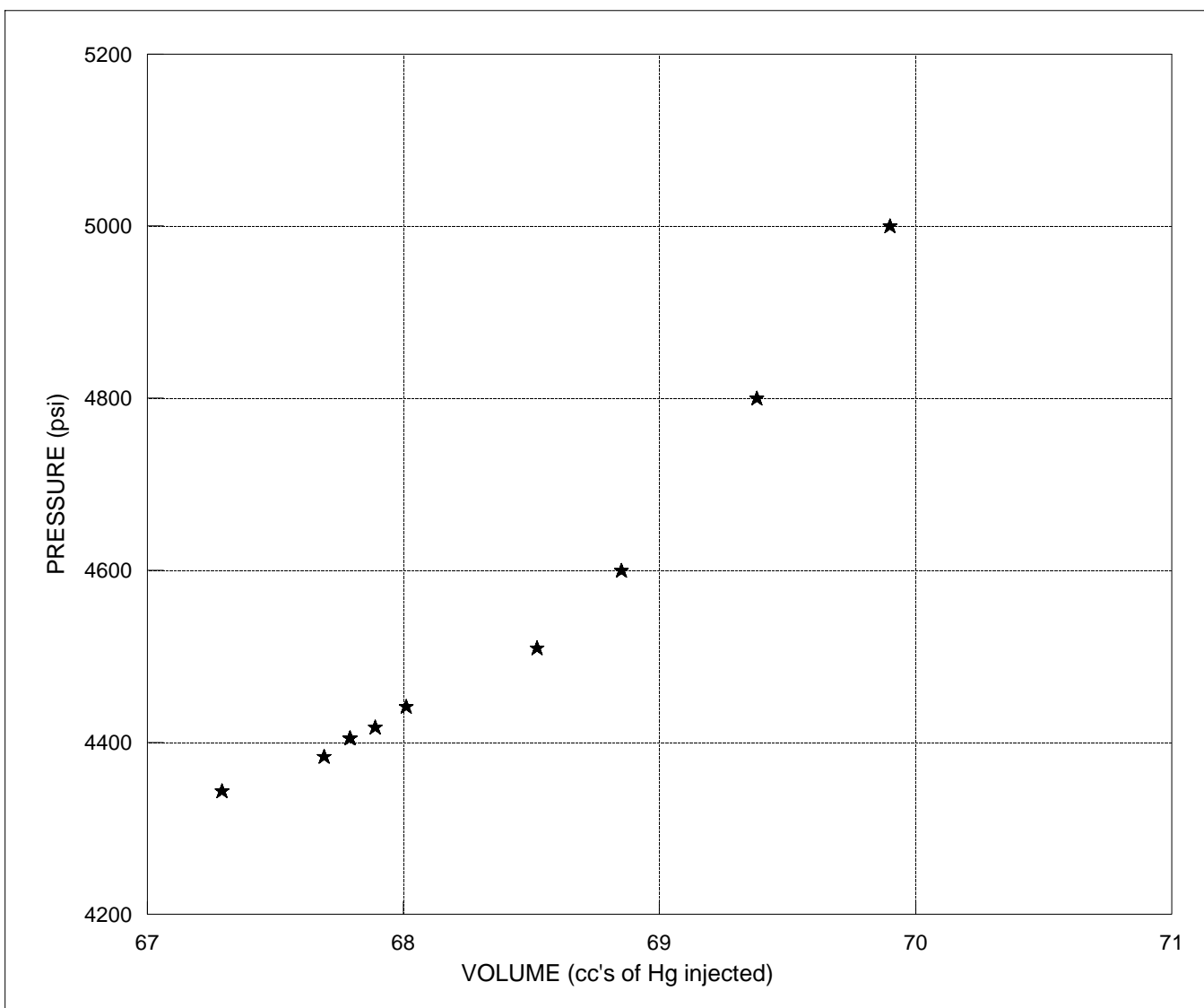
Sampling Conditions

Date	:	February 25, 2003
Reservoir Pressure	:	4092.7 psia
Reservoir Temperature	:	108.07 ° C

Sampler ID	:	MPSR - 136
Volume	:	450 cc
Depth	:	2840 m

Tranferred into Cylinder #	:	84032809
----------------------------	---	----------

Volume (cc's)	Pressure (psi)
69.90	5000
69.38	4800
68.85	4600
68.52	4510
68.01	4442
67.89	4418
67.79	4405
67.69	4384
67.29	4344
67.79	4405
67.79	4405
67.79	4405





FINGERPRINT ANALYSIS BY CAPILLARY GAS CHROMATOGRAPHY

On Stock Tank Oil from atmospheric flash of sample in cylinder # 84032809 - Bottom Oil @ 2840 m

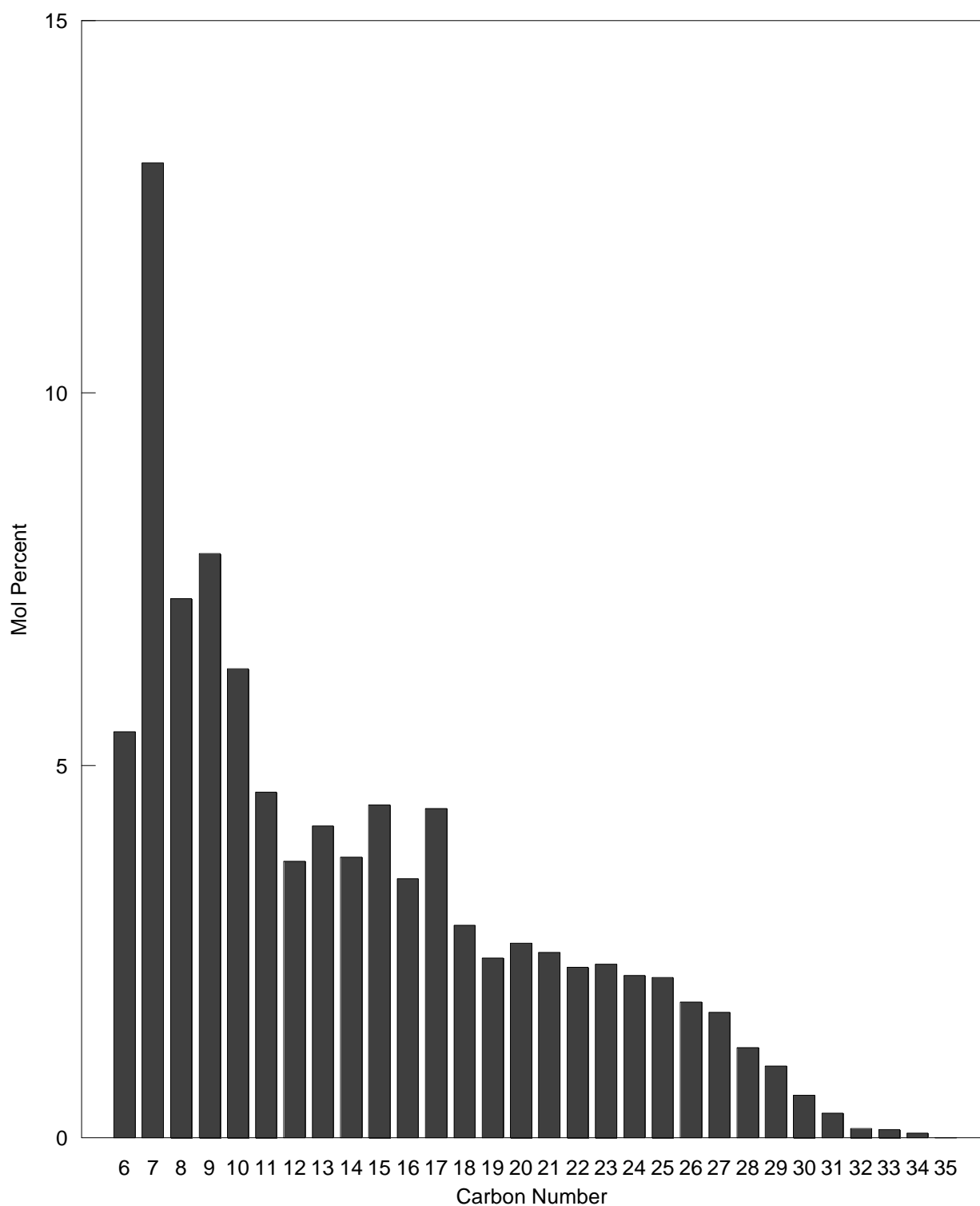
Component		Mol %
Hexanes minus	C6-	5.23
Hexanes	C6	5.45
Heptanes	C7	13.09
Octanes	C8	7.24
Nonanes	C9	7.84
Decanes	C10	6.30
Undecanes	C11	4.64
Dodecanes	C12	3.71
Tridecanes	C13	4.19
Tetradecanes	C14	3.77
Pentadecanes	C15	4.47
Hexadecanes	C16	3.48
Heptadecanes	C17	4.42
Octadecanes	C18	2.85
Nonadecanes	C19	2.41
Eicosanes	C20	2.61
Heneicosanes	C21	2.49
Docosanes	C22	2.29
Tricosanes	C23	2.33
Tetracosanes	C24	2.18
Pentacosanes	C25	2.15
Hexacosanes	C26	1.82
Heptacosanes	C27	1.68
Octacosanes	C28	1.21
Nonacosanes	C29	0.96
Triacosanes	C30	0.57
Hentriacontanes	C31	0.33
Dotriacontanes	C32	0.12
Tritriacontanes	C33	0.11
Tetratriacontanes	C34	0.06
Pentatriacontanes Plus	C35+	0.00
TOTAL		100.00

Molecular Weight Calculated *	:	184.8
Density @ 60 °F Calculated *	:	0.8188
Molecular Weight Measured	:	--
Density @ 60 °F Measured	:	0.8231

*Calculation based on generalized properties as published by Katz and Firoozabadi

FINGERPRINT ANALYSIS BY CAPILLARY GAS CHROMATOGRAPHY

On Stock Tank Oil from atmospheric flash of sample in cylinder # 84032809 - Bottom Oil @ 2840 m



COMPOSITIONAL ANALYSIS OF RESERVOIR FLUID

Cylinder # 84032809 - Bottom Oil @ 2840 m

Component		Stock Tank Liquid	Stock Tank Gas	Reservoir Fluid
		Mol %	Mol %	Mol %
Hydrogen Sulphide	H2S	0.00	0.00	0.00
Carbon Dioxide	CO2	0.04	2.78	2.06
Nitrogen	N2	0.00	0.18	0.13
Methane	C1	0.42	72.52	53.59
Ethane	C2	0.35	9.99	7.46
Propane	C3	0.89	7.10	5.47
Iso-Butane	iC4	0.42	1.32	1.08
N-Butane	nC4	1.16	2.56	2.19
Iso-Pentane	iC5	1.03	0.86	0.91
N-Pentane	nC5	1.31	0.85	0.97
Hexanes	C6	5.43	0.87	2.07
Heptanes	C7	13.04	0.72	3.95
Octanes	C8	7.21	0.16	2.01
Nonanes	C9	7.81	0.07	2.10
Decanes	C10	6.27	0.02	1.66
Undecanes	C11	4.62	0.00	1.21
Dodecanes Plus	C12+	50.00	0.00	13.14
TOTAL		100.00	100.00	100.00

Ratios

Molar Ratio	:	0.2626	0.7374	1.0000
Mass Ratio	:	0.7293	0.2707	1.0000
Liquid Ratio (bbl/bbl)	:	1.0000 @ SC	--	1.9989 @ PT*
Gas Liquid Ratio	:	1.0000 bbl @ SC	1668 SCF	--

Stream Properties

Molecular Weight	:	183.4	24.24	66.02
Density obs. (gm/cc)	:	0.8186 @ 60 °F	--	0.5624 @ PT*
Gravity (AIR = 1.000)	:	41.2 °API @ 60 °F	0.841	119.8
GHV (BTU/scf)	:	--	1387	--

Hexanes Plus Properties

Mol %	:	94.37	1.84	26.14
Molecular Weight	:	190.9	92.6	185.8
Density (gm/cc @ 60 °F)	:	0.8250	0.6790	0.8204
Gravity (°API @ 60 °F)	:	39.9	76.7	40.8

Heptanes Plus Properties

Mol %	:	88.95	0.97	24.07
Molecular Weight	:	197.4	100.4	194.6
Density (gm/cc @ 60 °F)	:	0.8294	0.6896	0.8268
Gravity (°API @ 60 °F)	:	38.9	73.5	39.5

Decanes Plus Properties

Mol %	:	60.89	0.02	16.01
Molecular Weight	:	239.7	133.9	239.6
Density (gm/cc @ 60 °F)	:	0.8500	0.7277	0.8500
Gravity (°API @ 60 °F)	:	34.8	62.8	34.8

Undecanes Plus Properties

Mol %	:	54.62	0.00	14.35
Molecular Weight	:	251.8	--	251.8
Density (gm/cc @ 60 °F)	:	0.8549	--	0.8549
Gravity (°API @ 60 °F)	:	33.9	--	33.9

Dodecanes Plus Properties

Mol %	:	50.00	0.00	13.14
Molecular Weight	:	261.5	--	261.5
Density (gm/cc @ 60 °F)	:	0.8586	--	0.8586
Gravity (°API @ 60 °F)	:	33.1	--	33.1

* (P)ressure : 4525 psig * (T)emperature : 227 °F



Company : Esso Australia Limited
Well : Scallop # 1

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Room Temperature Validity Check On Bottom Hole Sample

Saturation Pressure : 3805 psig @ 26 ° C

Sample # 9

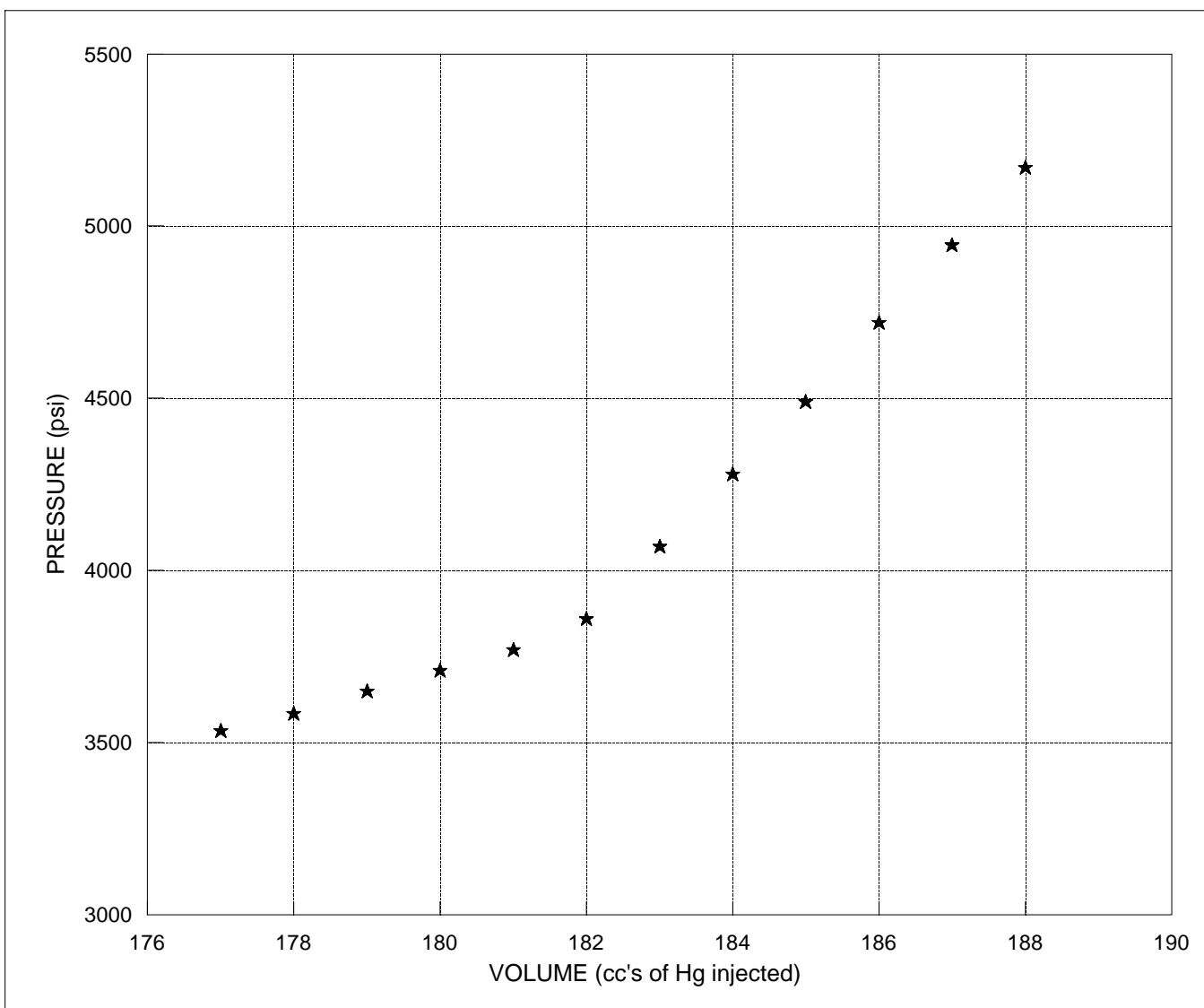
Sampling Conditions

Date	:	February 25, 2003
Reservoir Pressure	:	4092.7 psia
Reservoir Temperature	:	108.07 ° C

Sampler ID	:	MPSR - 316
Volume	:	450 cc
Depth	:	2840 m

Tranferred into Cylinder #	:	84062602
----------------------------	---	----------

Volume (cc's)	Pressure (psi)
188.00	5170
187.00	4945
186.00	4720
185.00	4490
184.00	4280
183.00	4070
182.00	3860
181.00	3770
180.00	3710
179.00	3650
178.00	3585
177.00	3535





Company : Esso Australia Limited
Well : Scallop # 1

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Reservoir Temperature Validity Check On Bottom Hole Sample

Saturation Pressure : 4380 psig @ 108 ° C

Sample # 9

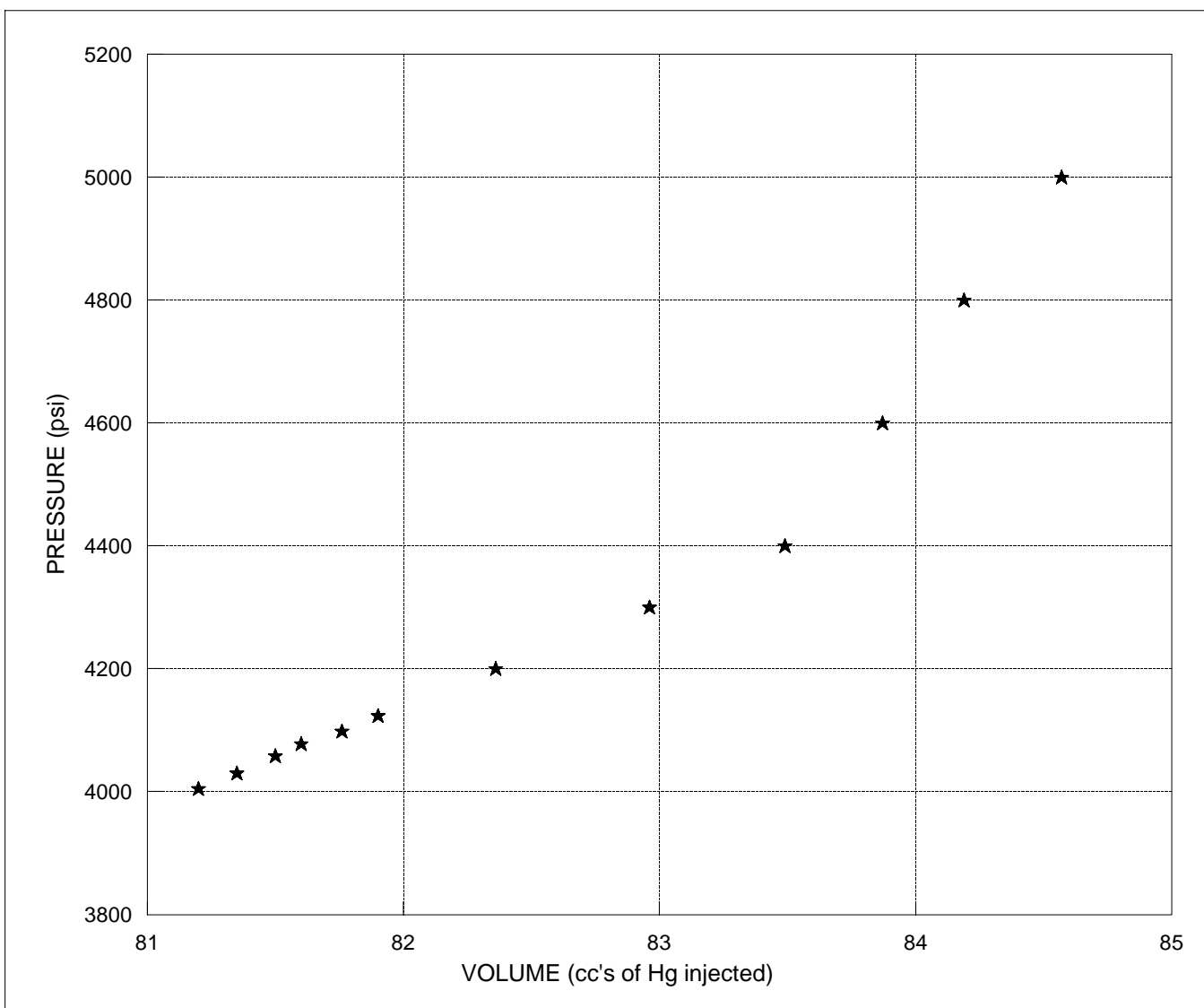
Sampling Conditions

Date	:	February 25, 2003
Reservoir Pressure	:	4092.7 psia
Reservoir Temperature	:	108.07 ° C

Sampler ID	:	MPSR - 316
Volume	:	450 cc
Depth	:	2840 m

Tranferred into Cylinder #	:	84062602
----------------------------	---	----------

Volume (cc's)	Pressure (psi)
84.57	5000
84.19	4800
83.87	4600
83.49	4400
82.96	4300
82.36	4200
81.90	4124
81.76	4099
81.60	4078
81.50	4058
81.35	4030
81.20	4005





Company : Esso Australia Limited
Well : Scallop # 1

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FINGERPRINT ANALYSIS BY CAPILLARY GAS CHROMATOGRAPHY

On Stock Tank Oil from atmospheric flash of sample in cylinder # 84062602 - Bottom oil @ 2840 m

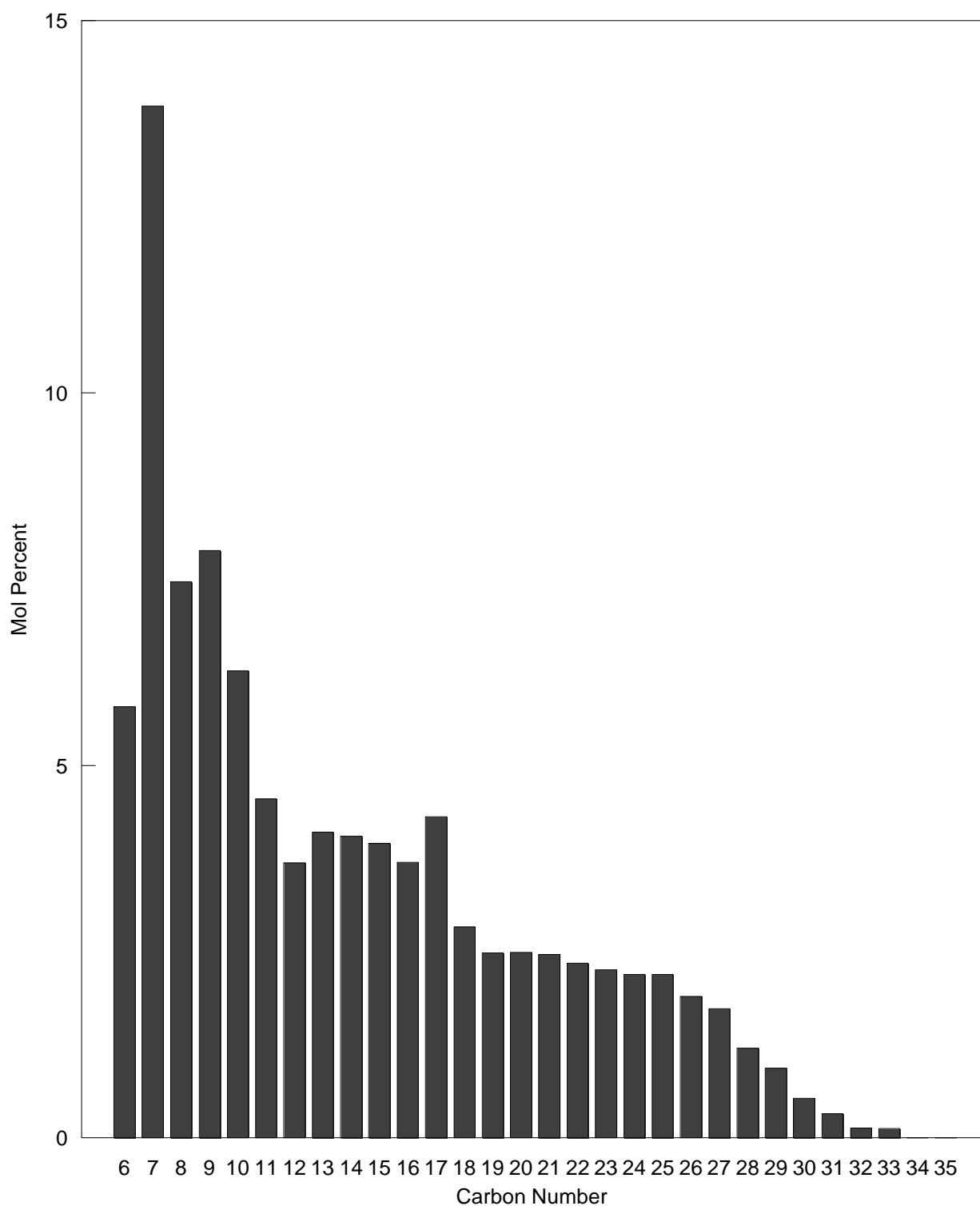
Component	Mol %	
Hexanes minus	C6-	4.29
Hexanes	C6	5.79
Heptanes	C7	13.85
Octanes	C8	7.47
Nonanes	C9	7.89
Decanes	C10	6.27
Undecanes	C11	4.55
Dodecanes	C12	3.69
Tridecanes	C13	4.10
Tetradecanes	C14	4.05
Pentadecanes	C15	3.95
Hexadecanes	C16	3.70
Heptadecanes	C17	4.31
Octadecanes	C18	2.83
Nonadecanes	C19	2.48
Eicosanes	C20	2.49
Heneicosanes	C21	2.46
Docosanes	C22	2.34
Tricosanes	C23	2.25
Tetracosanes	C24	2.19
Pentacosanes	C25	2.19
Hexacosanes	C26	1.90
Heptacosanes	C27	1.73
Octacosanes	C28	1.20
Nonacosanes	C29	0.93
triacontanes	C30	0.53
Hentriacontanes	C31	0.32
Dotriacontanes	C32	0.13
Tritriacontanes	C33	0.12
Tettratriacontanes	C34	0.00
Pentatriacontanes Plus	C35+	0.00
TOTAL		100.00

Molecular Weight Calculated *	:	184.7
Density @ 60 °F Calculated *	:	0.8191
Molecular Weight Measured	:	--
Density @ 60 °F Measured	:	0.8219

*Calculation based on generalized properties as published by Katz and Firoozabadi

FINGERPRINT ANALYSIS BY CAPILLARY GAS CHROMATOGRAPHY

On Stock Tank Oil from atmospheric flash of sample in cylinder # 84062602 - Bottom oil @ 2840 m



COMPOSITIONAL ANALYSIS OF RESERVOIR FLUID

Cylinder # 84062602 - Bottom oil @ 2840 m

Component		Stock Tank Liquid	Stock Tank Gas	Reservoir Fluid
		Mol %	Mol %	Mol %
Hydrogen Sulphide	H2S	0.00	0.00	0.00
Carbon Dioxide	CO2	0.04	2.92	2.12
Nitrogen	N2	0.00	0.17	0.12
Methane	C1	0.42	72.25	52.36
Ethane	C2	0.35	10.15	7.44
Propane	C3	0.90	7.31	5.54
Iso-Butane	iC4	0.44	1.40	1.13
N-Butane	nC4	1.15	2.57	2.18
Iso-Pentane	iC5	0.97	0.82	0.86
N-Pentane	nC5	1.18	0.78	0.89
Hexanes	C6	5.72	0.77	2.14
Heptanes	C7	13.68	0.64	4.25
Octanes	C8	7.38	0.14	2.14
Nonanes	C9	7.79	0.06	2.20
Decanes	C10	6.19	0.02	1.73
Undecanes	C11	4.49	0.00	1.24
Dodecanes Plus	C12+	49.28	0.00	13.66
TOTAL		100.00	100.00	100.00

Ratios

Molar Ratio	:	0.2770	0.7230	1.0000
Mass Ratio	:	0.7427	0.2573	1.0000
Liquid Ratio (bbl/bbl)	:	1.0000 @ SC	--	1.9376 @ PT*
Gas Liquid Ratio	:	1.0000 bbl @ SC	1559 SCF	--

Stream Properties

Molecular Weight	:	182.1	24.17	67.92
Density obs. (gm/cc)	:	0.8178 @ 60 °F	--	0.5691 @ PT*
Gravity (AIR = 1.000)	:	41.4 °API @ 60 °F	0.838	116.9
GHV (BTU/scf)	:	--	1380	--

Hexanes Plus Properties

Mol %	:	94.54	1.63	27.36
Molecular Weight	:	189.4	92.7	185.2
Density (gm/cc @ 60 °F)	:	0.8240	0.6790	0.8202
Gravity (°API @ 60 °F)	:	40.1	76.7	40.8

Heptanes Plus Properties

Mol %	:	88.82	0.86	25.22
Molecular Weight	:	196.2	100.4	193.8
Density (gm/cc @ 60 °F)	:	0.8286	0.6897	0.8265
Gravity (°API @ 60 °F)	:	39.1	73.5	39.5

Decanes Plus Properties

Mol %	:	59.97	0.02	16.63
Molecular Weight	:	239.8	133.9	239.7
Density (gm/cc @ 60 °F)	:	0.8501	0.7277	0.8500
Gravity (°API @ 60 °F)	:	34.8	62.8	34.8

Undecanes Plus Properties

Mol %	:	53.77	0.00	14.90
Molecular Weight	:	252.0	--	252.0
Density (gm/cc @ 60 °F)	:	0.8549	--	0.8549
Gravity (°API @ 60 °F)	:	33.9	--	33.9

Dodecanes Plus Properties

Mol %	:	49.28	0.00	13.66
Molecular Weight	:	261.6	--	261.6
Density (gm/cc @ 60 °F)	:	0.8586	--	0.8586
Gravity (°API @ 60 °F)	:	33.1	--	33.1

* (P)ressure : 4380 psig * (T)emperature : 227 °F



Company : Esso Australia Limited
Well : Scallop # 1

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Room Temperature Validity Check On Bottom Hole Sample

Saturation Pressure : 2820 psig @ 26 ° C

Sample # 10

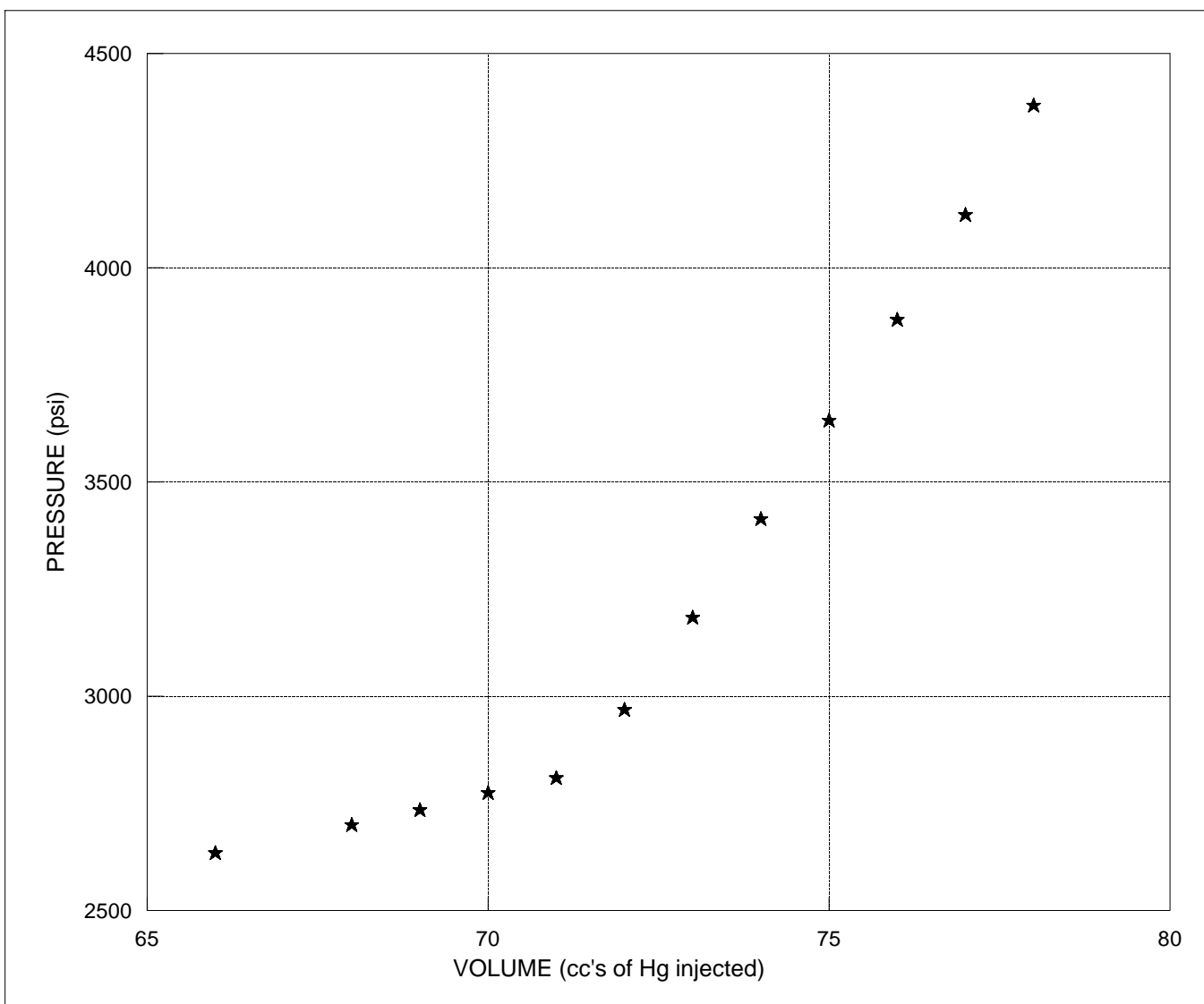
Sampling Conditions

Date	:	February 25, 2003
Reservoir Pressure	:	3668.27 psia
Reservoir Temperature	:	102.68 ° C

Sampler ID	:	MPSR - 477
Volume	:	450 cc
Depth	:	2630.2 m

Tranferred into Cylinder #	:	8403-X
----------------------------	---	--------

Volume (cc's)	Pressure (psi)
78.00	4380
77.00	4125
76.00	3880
75.00	3645
74.00	3415
73.00	3185
72.00	2970
71.00	2810
70.00	2775
69.00	2735
68.00	2700
66.00	2635





Company : Esso Australia Limited
Well : Scallop # 1

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Room Temperature Validity Check On Bottom Hole Sample

Saturation Pressure : 2820 psig @ 26 ° C

Sample # 11

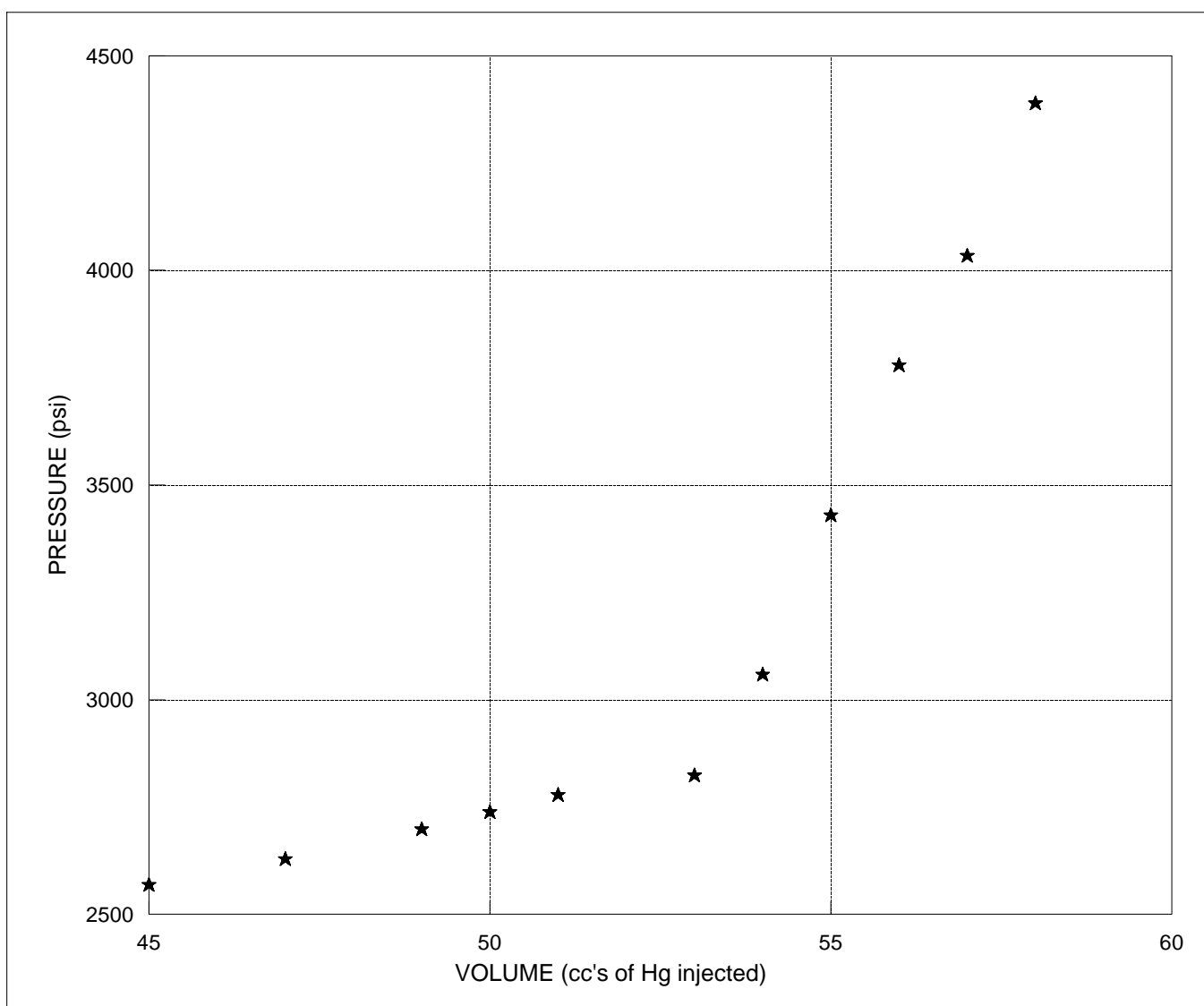
Sampling Conditions

Date	:	February 25, 2003
Reservoir Pressure	:	3668.27 psia
Reservoir Temperature	:	102.68 ° C

Sampler ID	:	MPSR - 501
Volume	:	450 cc
Depth	:	2630.2 m

Tranferred into Cylinder #	:	84062304
----------------------------	---	----------

Volume (cc's)	Pressure (psi)
59.00	4565
58.00	4390
57.00	4035
56.00	3780
55.00	3430
54.00	3060
53.00	2825
51.00	2780
50.00	2740
49.00	2700
47.00	2630
45.00	2570





Company : Esso Australia Limited
Well : Scallop # 1

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Reservoir Temperature Validity Check On Bottom Hole Sample

Saturation Pressure : 3520 psig @ 103 ° C

Sample # 10

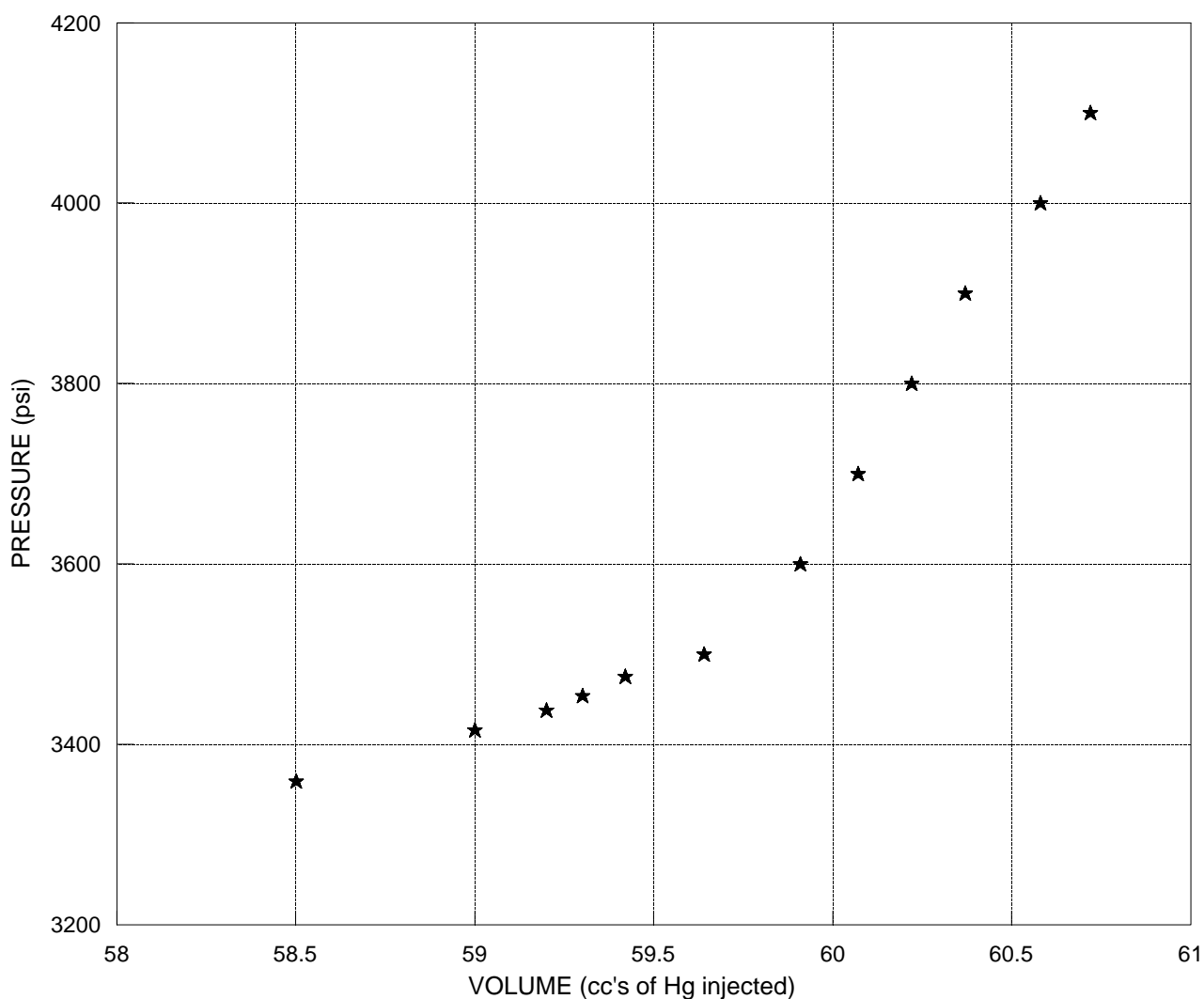
Sampling Conditions

Date	:	February 25, 2003
Reservoir Pressure	:	3668.27 psia
Reservoir Temperature	:	102.68 ° C

Sampler ID	:	MPSR - 477
Volume	:	450 cc
Depth	:	2630.2 m

Tranferred into Cylinder #	:	8403-X
----------------------------	---	--------

Volume (cc's)	Pressure (psi)
60.72	4100
60.58	4000
60.37	3900
60.22	3800
60.07	3700
59.91	3600
59.64	3500
59.42	3475
59.30	3454
59.20	3438
59.00	3416
58.50	3359





Company : Esso Australia Limited
Well : Scallop # 1

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FINGERPRINT ANALYSIS BY CAPILLARY GAS CHROMATOGRAPHY

On Stock Tank Oil from atmospheric flash of sample in cylinder # 8403-X - Top Oil @ 2630.2 m

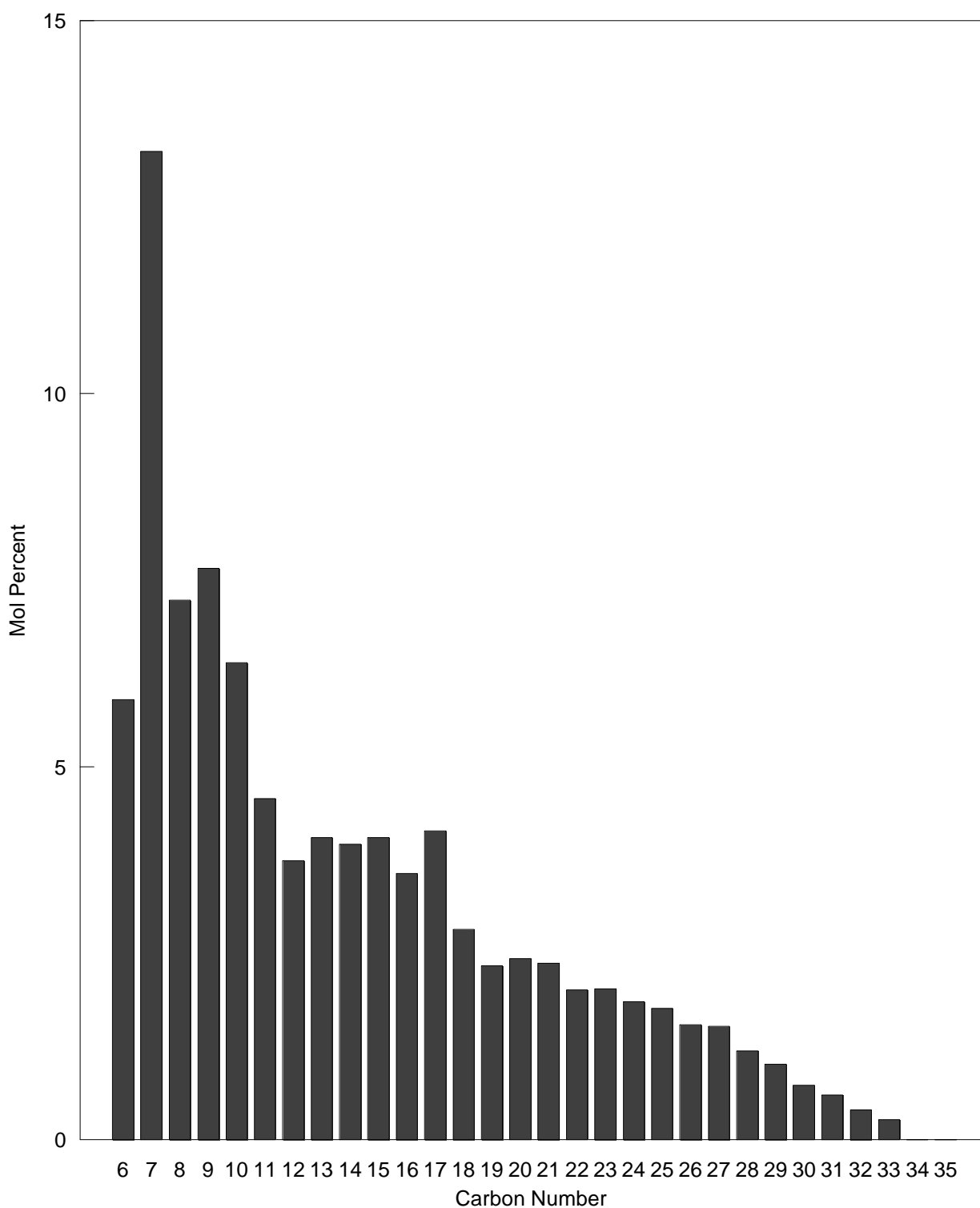
Component		Mol %
Hexanes minus	C6-	6.65
Hexanes	C6	5.90
Heptanes	C7	13.25
Octanes	C8	7.23
Nonanes	C9	7.66
Decanes	C10	6.39
Undecanes	C11	4.57
Dodecanes	C12	3.74
Tridecanes	C13	4.05
Tetradecanes	C14	3.96
Pentadecanes	C15	4.05
Hexadecanes	C16	3.57
Heptadecanes	C17	4.14
Octadecanes	C18	2.82
Nonadecanes	C19	2.33
Eicosanes	C20	2.43
Heneicosanes	C21	2.36
Docosanes	C22	2.01
Tricosanes	C23	2.02
Tetracosanes	C24	1.85
Pentacosanes	C25	1.76
Hexacosanes	C26	1.54
Heptacosanes	C27	1.52
Octacosanes	C28	1.19
Nonacosanes	C29	1.01
Triacosanes	C30	0.73
Hentriacontanes	C31	0.60
Dotriacontanes	C32	0.40
Tritriacontanes	C33	0.27
Tetratriacontanes	C34	0.00
Pentatriacontanes Plus	C35+	0.00
TOTAL		100.00

Molecular Weight Calculated *	:	181.7
Density @ 60 °F Calculated *	:	0.8164
Molecular Weight Measured	:	--
Density @ 60 °F Measured	:	0.8242

*Calculation based on generalized properties as published by Katz and Firoozabadi

FINGERPRINT ANALYSIS BY CAPILLARY GAS CHROMATOGRAPHY

On Stock Tank Oil from atmospheric flash of sample in cylinder # 8403-X - Top Oil @ 2630.2 m



COMPOSITIONAL ANALYSIS OF RESERVOIR FLUID

Cylinder # 8403-X - Top Oil @ 2630.2 m

Component		Stock Tank Liquid	Stock Tank Gas	Reservoir Fluid
		Mol %	Mol %	Mol %
Hydrogen Sulphide	H2S	0.00	0.00	0.00
Carbon Dioxide	CO2	0.02	1.16	0.78
Nitrogen	N2	0.00	0.26	0.17
Methane	C1	0.40	69.09	46.11
Ethane	C2	0.40	11.55	7.82
Propane	C3	1.13	8.91	6.31
Iso-Butane	iC4	0.59	1.86	1.44
N-Butane	nC4	1.47	3.19	2.61
Iso-Pentane	iC5	1.27	1.04	1.12
N-Pentane	nC5	1.56	0.99	1.18
Hexanes	C6	5.89	0.96	2.61
Heptanes	C7	13.22	0.74	4.92
Octanes	C8	7.21	0.16	2.52
Nonanes	C9	7.64	0.07	2.60
Decanes	C10	6.38	0.02	2.15
Undecanes	C11	4.56	0.00	1.53
Dodecanes Plus	C12+	48.25	0.00	16.13
TOTAL		100.00	100.00	100.00

Ratios

Molar Ratio	:	0.3345	0.6655	1.0000
Mass Ratio	:	0.7819	0.2181	1.0000
Liquid Ratio (bbl/bbl)	:	1.0000 @ SC	--	1.7470 @ PT*
Gas Liquid Ratio	:	1.0000 bbl @ SC	1198 SCF	--

Stream Properties

Molecular Weight	:	180.3	25.27	77.12
Density obs. (gm/cc)	:	0.8161 @ 60 °F	--	0.5983 @ PT*
Gravity (AIR = 1.000)	:	41.7 °API @ 60 °F	0.877	104.8
GHV (BTU/scf)	:	--	1483	--

Hexanes Plus Properties

Mol %	:	93.16	1.95	32.46
Molecular Weight	:	189.3	92.3	185.4
Density (gm/cc @ 60 °F)	:	0.8240	0.6785	0.8205
Gravity (°API @ 60 °F)	:	40.1	76.9	40.8

Heptanes Plus Properties

Mol %	:	87.27	0.99	29.85
Molecular Weight	:	196.4	100.3	194.3
Density (gm/cc @ 60 °F)	:	0.8288	0.6895	0.8269
Gravity (°API @ 60 °F)	:	39.1	73.5	39.5

Decanes Plus Properties

Mol %	:	59.19	0.02	19.81
Molecular Weight	:	239.5	133.9	239.4
Density (gm/cc @ 60 °F)	:	0.8500	0.7277	0.8500
Gravity (°API @ 60 °F)	:	34.8	62.8	34.8

Undecanes Plus Properties

Mol %	:	52.81	0.00	17.66
Molecular Weight	:	252.2	--	252.2
Density (gm/cc @ 60 °F)	:	0.8551	--	0.8551
Gravity (°API @ 60 °F)	:	33.8	--	33.8

Dodecanes Plus Properties

Mol %	:	48.25	0.00	16.13
Molecular Weight	:	262.1	--	262.1
Density (gm/cc @ 60 °F)	:	0.8589	--	0.8589
Gravity (°API @ 60 °F)	:	33.1	--	33.1

* (P)ressure : 3520 psig * (T)emperature : 217 °F