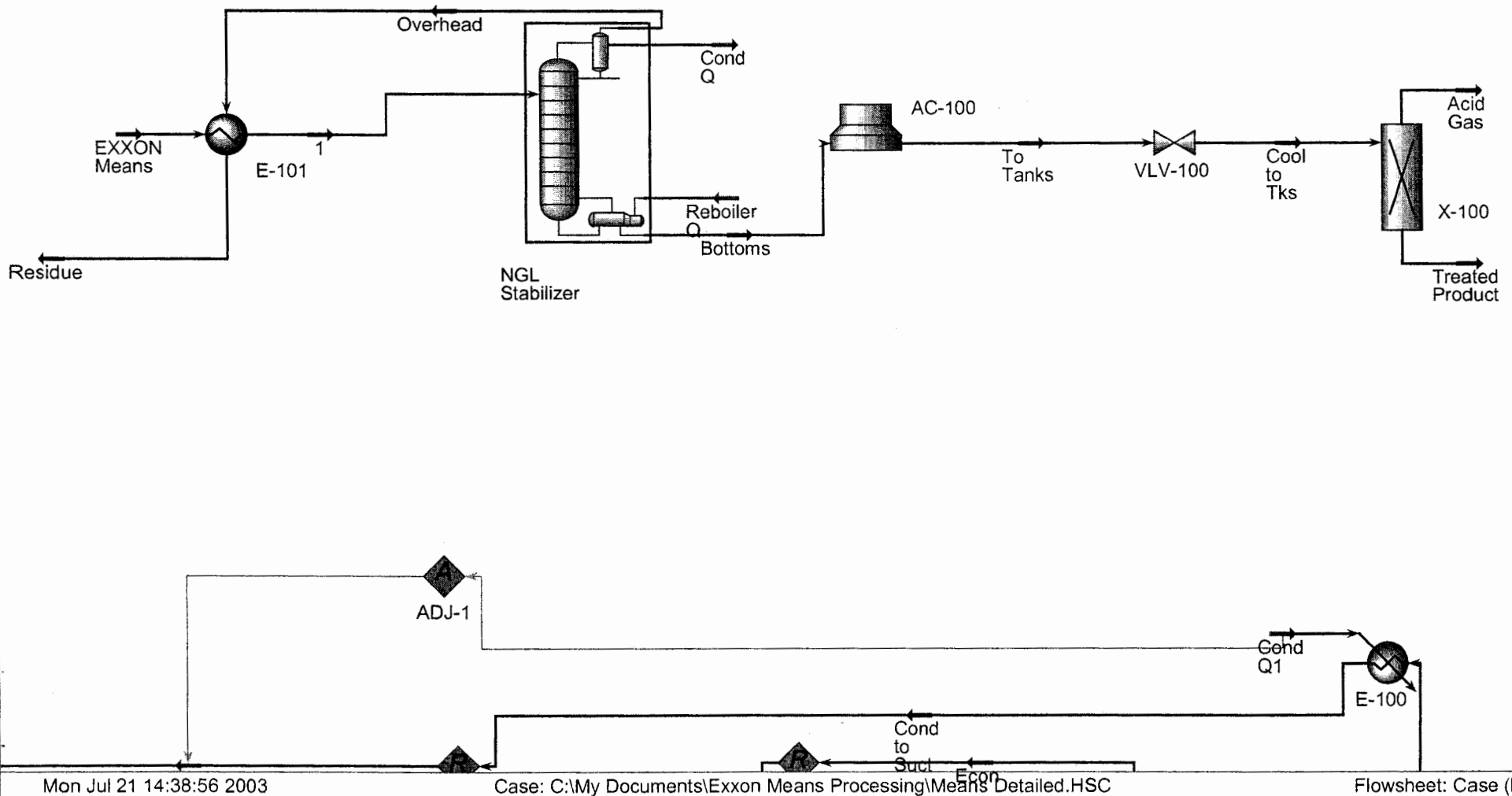




1	 Holloman Corporation Calgary, Alberta CANADA			Case Name: C:\My Documents\Exxon Means Processing\Means Detailed.HSC		
2				Unit Set: NewUser		
3				Date/Time: Mon Jul 21 14:40:52 2003		
4						
5						
6	Material Stream: EXXON Means			Fluid Package: Basis-1		
7				Property Package: PRSV		
8						
9	CONDITIONS					
10						
11		Overall	Vapour Phase	Liquid Phase		
12	Vapour / Phase Fraction	0.9986	0.9986	0.001365		
13	Temperature: (F)	104.0 *	104.0	104.0		
14	Pressure: (psig)	685.3 *	685.3	685.3		
15	Molar Flow (MMSCFD)	50.00 *	49.93	0.06827		
16	Mass Flow (lb/hr)	2.291e+05	2.286e+05	530.8		
17	Liquid Volume Flow (USGPM)	612.3	610.7	1.511		
18	Molar Enthalpy (Btu/lbmole)	-1.458e+05	-1.458e+05	-1.218e+05		
19	Molar Entropy (Btu/lbmole-F)	34.58	34.60	23.11		
20	Heat Flow (Btu/hr)	-8.005e+08	-7.995e+08	-9.131e+05		
21	Std Liq Volume Flow (USGPM)	669.5	669.3	1.385		
22	PROPERTIES					
23						
24		Overall	Vapour Phase	Liquid Phase		
25	Vapour / Phase Fraction	0.9986	0.9986	0.001365		
26	Temperature: (F)	104.0 *	104.0	104.0		
27	Pressure: (psig)	685.3 *	685.3	685.3		
28	Actual Volume Flow (barrel/day)	1.512e+05	1.512e+05	49.78		
29	Mass Enthalpy (Btu/lb)	-3493	-3497	-1720		
30	Mass Entropy (Btu/lb-F)	0.8285	0.8297	0.3264		
31	Molecular Weight	41.74	41.70	70.80		
32	Molar Density (lbmole/ft3)	0.1552	0.1550	0.6437		
33	Mass Density (lb/ft3)	6.477	6.464	45.57		
34	Std Liquid Mass Density (lb/ft3)	---	42.58	47.79		
35	Molar Heat Capacity (Btu/lbmole-F)	14.66	14.63	37.48		
36	Mass Heat Capacity (Btu/lb-F)	0.3513	0.3509	0.5293		
37	Thermal Conductivity (Btu/hr-ft-F)	---	0.01428	0.04235		
38	Viscosity (cP)	---	0.01707	0.2458		
39	Surface Tension (dyne/cm)	---	---	8.947		
40	Specific Heat (Btu/lbmole-F)	14.66	14.63	37.48		
41	Z Factor	---	0.7465	0.1798		
42	Molar Vapour Fraction	0.9986	0.9986	0.001365		
43	Mass Vapour Fraction	0.9977	0.9977	0.002316		
44	Volume Vapour Fraction	0.9975	0.9975	0.002467		
45	Molar Volume (ft3/lbmole)	6.444	6.450	1.554		
46	Actual Gas Flow (ACFM)	---	589.4	---		
47	Actual Liquid Flow (USGPM)	1.452	---	1.452		
48	Std. Gas Flow (MMSCFD)	50.00	49.93	0.06827		
49	Std. Liquid Volume Flow (barrel/day)	2.295e+04	2.295e+04	47.47		
50	Watson K	9.354	9.349	11.55		
51	Kinematic Viscosity (cSt)	---	0.1648	0.3367		
52	Cp/Cv	1.157	1.157	1.056		
53	Lower Heating Value (Btu/lbmole)	---	---	---		
54	Mass Lower Heating Value (Btu/lb)	---	---	---		
55	Liquid Fraction	0.001365	0.0000	1.000		
56	Partial Pressure (psig)	562.2	562.2	562.2		
57	COMPOSITION					
58						
59	Overall Phase			Vapour Fraction	0.9986	
60						
61	COMPONENTS	MOLAR FLOW (lbmole/hr)	MOLE FRACTION	MASS FLOW (lb/hr)	MASS FRACTION	LIQUID VOLUME FLOW (barrel/day)
62						LIQUID VOLUME FRACTION
63	H2S	131.7 *	0.02399 *	4489 *	0.01959 *	389.9 *
64	Nitrogen	75.36 *	0.01373 *	2111 *	0.009213 *	179.3 *
65	CO2	4521 *	0.8235 *	1.990e+05 *	0.8684 *	1.651e+04 *
66	Hypotech Ltd.			HYSYS.Process v2.1.1 (Build 3198)		Page 1 of 3

1	 Holloman Corporation Calgary, Alberta CANADA			Case Name: C:\My Documents\Exxon Means Processing\Means Detailed.HSC			
2				Unit Set: NewUser			
3				Date/Time: Mon Jul 21 14:40:52 2003			
4							
5							
6	Material Stream: EXXON Means (continued)				Fluid Package: Basis-1		
7					Property Package: PRSV		
8							
9	COMPOSITION						
10							
11	Overall Phase (continued)				Vapour Fraction 0.9986		
12							
13	COMPONENTS	MOLAR FLOW	MOLE FRACTION	MASS FLOW	MASS FRACTION	LIQUID VOLUME	LIQUID VOLUME
14		(lbmole/hr)		(lb/hr)		FLOW (barrel/day)	FRACTION
15	Methane	345.8 *	0.06298 *	5547 *	0.02421 *	1269 *	0.06043 *
16	Ethane	235.2 *	0.04284 *	7073 *	0.03087 *	1362 *	0.06486 *
17	Propane	72.02 *	0.01312 *	3176 *	0.01386 *	429.2 *	0.02044 *
18	i-Butane	23.11 *	0.004209 *	1343 *	0.005862 *	163.7 *	0.007796 *
19	n-Butane	34.09 *	0.006209 *	1981 *	0.008646 *	232.6 *	0.01108 *
20	i-Pentane	20.03 *	0.003649 *	1446 *	0.006308 *	158.8 *	0.007563 *
21	n-Pentane	7.520 *	0.001370 *	542.6 *	0.002368 *	59.00 *	0.002810 *
22	n-Hexane	6.367 *	0.001160 *	548.7 *	0.002395 *	56.70 *	0.002701 *
23	n-Octane	16.47 *	0.002999 *	1881 *	0.008209 *	182.6 *	0.008699 *
24	H2O	1.221 *	0.0002224 *	22.00 *	9.599e-05 *	1.509 *	7.189e-05 *
25	Total	5490	1.0000	2.291e+05	1.0000	2.099e+04	1.0000
26	Vapour Phase						Phase Fraction 0.9986
27							
28	COMPONENTS	MOLAR FLOW	MOLE FRACTION	MASS FLOW	MASS FRACTION	LIQUID VOLUME	LIQUID VOLUME
29		(lbmole/hr)		(lb/hr)		FLOW (barrel/day)	FRACTION
30	H2S	131.5	0.02399	4483	0.01961	389.3	0.01859
31	Nitrogen	75.34	0.01374	2111	0.009232	179.2	0.008559
32	CO2	4518	0.8241	1.988e+05	0.8698	1.650e+04	0.7878
33	Methane	345.6	0.06304	5545	0.02426	1268	0.06056
34	Ethane	234.9	0.04285	7064	0.03090	1360	0.06495
35	Propane	71.81	0.01310	3167	0.01385	428.0	0.02044
36	i-Butane	22.99	0.004192	1336	0.005844	162.8	0.007774
37	n-Butane	33.85	0.006174	1968	0.008607	231.0	0.01103
38	i-Pentane	19.77	0.003606	1427	0.006240	156.7	0.007483
39	n-Pentane	7.398	0.001349	533.8	0.002335	58.04	0.002772
40	n-Hexane	6.133	0.001119	528.5	0.002312	54.61	0.002608
41	n-Octane	13.84	0.002525	1581	0.006917	153.5	0.007331
42	H2O	1.220	0.0002225	21.98	9.613e-05	1.508	7.201e-05
43	Total	49.93	1.0000	2.286e+05	1.0000	610.7	1.0000
44	Liquid Phase						Phase Fraction 0.001365
45							
46	COMPONENTS	MOLAR FLOW	MOLE FRACTION	MASS FLOW	MASS FRACTION	LIQUID VOLUME	LIQUID VOLUME
47		(lbmole/hr)		(lb/hr)		FLOW (barrel/day)	FRACTION
48	H2S	0.1908	0.02546	6.503	0.01225	0.5648	0.01090
49	Nitrogen	0.02003	0.002672	0.5612	0.001057	0.04765	0.0009200
50	CO2	3.103	0.4139	136.5	0.2573	11.33	0.2187
51	Methane	0.1106	0.01476	1.775	0.003343	0.4058	0.007835
52	Ethane	0.2711	0.03616	8.152	0.01536	1.569	0.03030
53	Propane	0.2010	0.02681	8.862	0.01670	1.198	0.02312
54	i-Butane	0.1233	0.01645	7.166	0.01350	0.8731	0.01686
55	n-Butane	0.2345	0.03128	13.63	0.02568	1.600	0.03089
56	i-Pentane	0.2619	0.03493	18.89	0.03560	2.075	0.04006
57	n-Pentane	0.1218	0.01625	8.787	0.01656	0.9555	0.01845
58	n-Hexane	0.2342	0.03124	20.18	0.03802	2.085	0.04026
59	n-Octane	2.624	0.3500	299.7	0.5646	29.09	0.5617
60	H2O	0.0009715	0.0001296	0.01750	3.298e-05	0.001201	2.318e-05
61	Total	0.06827	1.0000	530.8	1.0000	1.511	1.0000
62	K VALUE						
63							
64	COMPONENTS		MIXED		LIGHT		HEAVY
65	H2S		0.9425		0.9425		---
66	Hyprotech Ltd. HYSYS.Process v2.1.1 (Build 3198) Page 2 of 3						



Holloman Corporation
Calgary, Alberta
CANADA

Case Name: C:\My Documents\Exxon Means Processing\Means Detailed.HSC
Unit Set: NewUser
Date/Time: Mon Jul 21 14:40:52 2003

Material Stream: EXXON Means (continued)

Fluid Package: Basis-1
Property Package: PRSV

K VALUE

COMPONENTS	MIXED	LIGHT	HEAVY
Nitrogen	5.142	5.142	---
CO2	1.991	1.991	---
Methane	4.272	4.272	---
Ethane	1.185	1.185	---
Propane	0.4886	0.4886	---
i-Butane	0.2549	0.2549	---
n-Butane	0.1974	0.1974	---
i-Pentane	0.1032	0.1032	---
n-Pentane	0.08305	0.08305	---
n-Hexane	0.03581	0.03581	---
n-Octane	0.007214	0.007214	---
H2O	1.717	1.717	---

1	 Holloman Corporation Calgary, Alberta CANADA		Case Name: C:\My Documents\Exxon Means Processing\Means Detailed.HSC			
2			Unit Set: NewUser			
3			Date/Time: Mon Jul 21 14:41:57 2003			
4						
5			Fluid Package: Basis-1			
6	Material Stream: Residue		Property Package: PRSV			
7						
8						
9	CONDITIONS					
10						
11		Overall	Vapour Phase			
12	Vapour / Phase Fraction	1.000	1.000			
13	Temperature: (F)	81.79	81.79			
14	Pressure: (psig)	655.3	655.3			
15	Molar Flow (MMSCFD)	48.89	48.89			
16	Mass Flow (lb/hr)	2.211e+05	2.211e+05			
17	Liquid Volume Flow (USGPM)	586.5	586.5			
18	Molar Enthalpy (Btu/lbmole)	-1.479e+05	-1.479e+05			
19	Molar Entropy (Btu/lbmole-F)	34.21	34.21			
20	Heat Flow (Btu/hr)	-7.939e+08	-7.939e+08			
21	Std Liq Volume Flow (USGPM)	673.1	673.1			
22	PROPERTIES					
23						
24		Overall	Vapour Phase			
25	Vapour / Phase Fraction	1.000	1.000			
26	Temperature: (F)	81.79	81.79			
27	Pressure: (psig)	655.3	655.3			
28	Actual Volume Flow (barrel/day)	1.457e+05	1.457e+05			
29	Mass Enthalpy (Btu/lb)	-3590	-3590			
30	Mass Entropy (Btu/lb-F)	0.8305	0.8305			
31	Molecular Weight	41.19	41.19			
32	Molar Density (lbmole/ft3)	0.1575	0.1575			
33	Mass Density (lb/ft3)	6.487	6.487			
34	Std Liquid Mass Density (lb/ft3)	---	40.96			
35	Molar Heat Capacity (Btu/lbmole-F)	14.61	14.61			
36	Mass Heat Capacity (Btu/lb-F)	0.3546	0.3546			
37	Thermal Conductivity (Btu/hr-ft-F)	0.01373	0.01373			
38	Viscosity (cP)	0.01653	0.01653			
39	Surface Tension (dyne/cm)	---	---			
40	Specific Heat (Btu/lbmole-F)	14.61	14.61			
41	Z Factor	0.7321	0.7321			
42	Molar Vapour Fraction	1.000	1.000			
43	Mass Vapour Fraction	1.000	1.000			
44	Volume Vapour Fraction	1.000	1.000			
45	Molar Volume (ft3/lbmole)	6.350	6.350			
46	Actual Gas Flow (ACFM)	568.1	568.1			
47	Actual Liquid Flow (USGPM)	---	---			
48	Std. Gas Flow (MMSCFD)	48.89	48.89			
49	Std. Liquid Volume Flow (barrel/day)	2.308e+04	2.308e+04			
50	Watson K	9.234	9.234			
51	Kinematic Viscosity (cSt)	0.1590	0.1590			
52	Cp/Cv	1.157	1.157			
53	Lower Heating Value (Btu/lbmole)	---	---			
54	Mass Lower Heating Value (Btu/lb)	---	---			
55	Liquid Fraction	0.0000	0.0000			
56	Partial Pressure (psig)	549.3	549.3			
57	COMPOSITION					
58						
59	Overall Phase			Vapour Fraction 1.000		
60						
61	COMPONENTS	MOLAR FLOW (lbmole/hr)	MOLE FRACTION	MASS FLOW (lb/hr)	MASS FRACTION	LIQUID VOLUME FLOW (barrel/day)
62						LIQUID VOLUME FRACTION
63	H2S	122.8	0.02287	4183	0.01892	363.3
64	Nitrogen	75.36	0.01404	2111	0.009547	179.3
65	CO2	4519	0.8418	1.989e+05	0.8994	1.650e+04
66	Hyprotech Ltd.	HYSYS.Process v2.1.1 (Build 3198)			Page 1 of 2	

1	 Holloman Corporation Calgary, Alberta CANADA			Case Name: C:\My Documents\Exxon Means Processing\Means Detailed.HSC				
2				Unit Set: NewUser				
3				Date/Time: Mon Jul 21 14:41:57 2003				
4								
5				Fluid Package: Basis-1				
6	Material Stream: Residue (continued)			Property Package: PRSV				
7								
8								
9	COMPOSITION							
10								
11	Overall Phase (continued)							
12						Vapour Fraction	1.000	
13	COMPONENTS	MOLAR FLOW (lbmole/hr)	MOLE FRACTION	MASS FLOW (lb/hr)	MASS FRACTION	LIQUID VOLUME FLOW (barrel/day)	LIQUID VOLUME FRACTION	
14								
15	Methane	345.8	0.06441	5547	0.02508	1269	0.06309	
16	Ethane	234.8	0.04374	7061	0.03193	1359	0.06760	
17	Propane	54.01	0.01006	2382	0.01077	321.9	0.01601	
18	i-Butane	8.924	0.001662	518.7	0.002346	63.20	0.003143	
19	n-Butane	7.262	0.001353	422.1	0.001909	49.55	0.002465	
20	i-Pentane	0.2954	5.503e-05	21.31	9.639e-05	2.341	0.0001164	
21	n-Pentane	0.03476	6.474e-06	2.508	1.134e-05	0.2727	1.356e-05	
22	n-Hexane	0.0001390	2.589e-08	0.01198	5.416e-08	0.001238	6.155e-08	
23	n-Octane	7.520e-09	1.401e-12	8.590e-07	3.885e-12	8.339e-08	4.147e-12	
24	H2O	0.03133	5.835e-06	0.5643	2.552e-06	0.03872	1.926e-06	
25	Total	5368	1.0000	2.211e+05	1.0000	2.011e+04	1.0000	
26	Vapour Phase						Phase Fraction	1.000
27								
28	COMPONENTS	MOLAR FLOW (lbmole/hr)	MOLE FRACTION	MASS FLOW (lb/hr)	MASS FRACTION	LIQUID VOLUME FLOW (barrel/day)	LIQUID VOLUME FRACTION	
29								
30	H2S	122.8	0.02287	4183	0.01892	363.3	0.01807	
31	Nitrogen	75.36	0.01404	2111	0.009547	179.3	0.008916	
32	CO2	4519	0.8418	1.989e+05	0.8994	1.650e+04	0.8206	
33	Methane	345.8	0.06441	5547	0.02508	1269	0.06309	
34	Ethane	234.8	0.04374	7061	0.03193	1359	0.06760	
35	Propane	54.01	0.01006	2382	0.01077	321.9	0.01601	
36	i-Butane	8.924	0.001662	518.7	0.002346	63.20	0.003143	
37	n-Butane	7.262	0.001353	422.1	0.001909	49.55	0.002465	
38	i-Pentane	0.2954	5.503e-05	21.31	9.639e-05	2.341	0.0001164	
39	n-Pentane	0.03476	6.474e-06	2.508	1.134e-05	0.2727	1.356e-05	
40	n-Hexane	0.0001390	2.589e-08	0.01198	5.416e-08	0.001238	6.155e-08	
41	n-Octane	7.520e-09	1.401e-12	8.590e-07	3.885e-12	8.339e-08	4.147e-12	
42	H2O	0.03133	5.835e-06	0.5643	2.552e-06	0.03872	1.926e-06	
43	Total	48.89	1.0000	2.211e+05	1.0000	586.5	1.0000	
44	K VALUE							
45								
46	COMPONENTS	MIXED		LIGHT		HEAVY		
47	H2S	---		---		---		
48	Nitrogen	---		---		---		
49	CO2	---		---		---		
50	Methane	---		---		---		
51	Ethane	---		---		---		
52	Propane	---		---		---		
53	i-Butane	---		---		---		
54	n-Butane	---		---		---		
55	i-Pentane	---		---		---		
56	n-Pentane	---		---		---		
57	n-Hexane	---		---		---		
58	n-Octane	---		---		---		
59	H2O	---		---		---		
60								
61								
62								
63								
64								
65								
66	Hyprotech Ltd.		HYSYS.Process v2.1.1 (Build 3198)			Page 2 of 2		

1	 Holloman Corporation Calgary, Alberta CANADA		Case Name: C:\My Documents\Exxon Means Processing\Means Detailed.HSC				
2			Unit Set: NewUser				
3			Date/Time: Mon Jul 21 14:42:04 2003				
4							
5							
6	Material Stream: Treated Product					Fluid Package: Basis-1	
7						Property Package: PRSV	
8							
9	CONDITIONS						
10							
11		Overall	Liquid Phase	Aqueous Phase			
12	Vapour / Phase Fraction	0.0000	0.9903	0.009731			
13	Temperature: (F)	110.7	110.7	110.7			
14	Pressure: (psig)	185.3	185.3	185.3			
15	Molar Flow (MMSCFD)	1.008	0.9979	0.009806			
16	Mass Flow (lb/hr)	7605	7585	19.40			
17	Liquid Volume Flow (USGPM)	24.76	24.72	0.03882			
18	Molar Enthalpy (Btu/lbmole)	-7.225e+04	-7.176e+04	-1.218e+05			
19	Molar Entropy (Btu/lbmole-F)	20.15	20.21	14.30			
20	Heat Flow (Btu/hr)	-7.994e+06	-7.863e+06	-1.312e+05			
21	Std Liq Volume Flow (USGPM)	24.45	24.41	0.03819			
22	PROPERTIES						
23							
24		Overall	Liquid Phase	Aqueous Phase			
25	Vapour / Phase Fraction	0.0000	0.9903	0.009731			
26	Temperature: (F)	110.7	110.7	110.7			
27	Pressure: (psig)	185.3	185.3	185.3			
28	Actual Volume Flow (barrel/day)	878.6	877.2	1.337			
29	Mass Enthalpy (Btu/lb)	-1051	-1037	-6763			
30	Mass Entropy (Btu/lb-F)	0.2932	0.2919	0.7935			
31	Molecular Weight	68.73	69.23	18.02			
32	Molar Density (lbmole/ft3)	0.5384	0.5339	3.443			
33	Mass Density (lb/ft3)	37.00	36.96	62.02			
34	Std Liquid Mass Density (lb/ft3)	38.79	38.75	63.33			
35	Molar Heat Capacity (Btu/lbmole-F)	40.46	40.69	17.37			
36	Mass Heat Capacity (Btu/lb-F)	0.5887	0.5877	0.9643			
37	Thermal Conductivity (Btu/hr-ft-F)	0.05439	0.05427	0.3675			
38	Viscosity (cP)	0.1861	0.1851	0.6076			
39	Surface Tension (dyne/cm)	---	11.22	68.84			
40	Specific Heat (Btu/lbmole-F)	40.46	40.69	17.37			
41	Z Factor	---	0.06119	0.009490			
42	Molar Vapour Fraction	0.0000	0.9903	0.009731			
43	Mass Vapour Fraction	0.0000	0.9974	0.002551			
44	Volume Vapour Fraction	0.0000	0.9984	0.001568			
45	Molar Volume (ft3/lbmole)	1.858	1.873	0.2905			
46	Actual Gas Flow (ACFM)	---	---	---			
47	Actual Liquid Flow (USGPM)	25.63	25.59	0.03899			
48	Std. Gas Flow (MMSCFD)	1.008	0.9980	0.009807			
49	Std. Liquid Volume Flow (barrel/day)	837.5	836.8	1.309			
50	Watson K	13.24	13.24	18.78			
51	Kinematic Viscosity (cSt)	0.03349	0.3126	0.6116			
52	Cp/Cv	1.052	1.051	1.129			
53	Lower Heating Value (Btu/lbmole)	1.338e+06	1.351e+06	5.013e-05			
54	Mass Lower Heating Value (Btu/lb)	1.947e+04	1.952e+04	2.783e-06			
55	Liquid Fraction	1.000	1.000	1.000			
56	Partial Pressure (psig)	-14.70	-14.70	-14.70			
57	COMPOSITION						
58							
59	Overall Phase				Vapour Fraction 0.0000		
60							
61	COMPONENTS	MOLAR FLOW (lbmole/hr)	MOLE FRACTION	MASS FLOW (lb/hr)	MASS FRACTION	LIQUID VOLUME FLOW (barrel/day)	LIQUID VOLUME FRACTION
62							
63	H2S	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
64	Nitrogen	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
65	CO2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
66	Hypertech Ltd. HYSYS.Process v2.1.1 (Build 3198) Page 1 of 3						

1	 Holloman Corporation Calgary, Alberta CANADA			Case Name: C:\My Documents\Exxon Means Processing\Means Detailed.HSC			
2				Unit Set: NewUser			
3				Date/Time: Mon Jul 21 14:42:04 2003			
4							
5							
6	Material Stream: Treated Product (continued)				Fluid Package: Basis-1		
7					Property Package: PRSV		
8							
9	COMPOSITION						
10							
11	Overall Phase (continued)						
12	Vapour Fraction 0.0000						
13	COMPONENTS	MOLAR FLOW (lbmole/hr)	MOLE FRACTION	MASS FLOW (lb/hr)	MASS FRACTION	LIQUID VOLUME FLOW (barrel/day)	LIQUID VOLUME FRACTION
14							
15	Methane	1.702e-06	1.539e-08	2.731e-05	3.591e-09	6.246e-06	7.357e-09
16	Ethane	0.3890	0.003515	11.70	0.001538	2.252	0.002652
17	Propane	18.00	0.1627	793.9	0.1044	107.3	0.1264
18	i-Butane	14.19	0.1282	824.5	0.1084	100.5	0.1183
19	n-Butane	26.82	0.2424	1559	0.2050	183.1	0.2156
20	i-Pentane	19.74	0.1784	1424	0.1873	156.4	0.1843
21	n-Pentane	7.485	0.06765	540.1	0.07102	58.72	0.06917
22	n-Hexane	6.367	0.05754	548.7	0.07215	56.70	0.06678
23	n-Octane	16.47	0.1488	1881	0.2474	182.6	0.2151
24	H2O	1.190	0.01075	21.43	0.002818	1.470	0.001732
25	Total	110.7	1.0000	7605	1.0000	849.0	1.0000
26	Liquid Phase						Phase Fraction 0.9903
27							
28	COMPONENTS	MOLAR FLOW (lbmole/hr)	MOLE FRACTION	MASS FLOW (lb/hr)	MASS FRACTION	LIQUID VOLUME FLOW (barrel/day)	LIQUID VOLUME FRACTION
29							
30	H2S	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
31	Nitrogen	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
32	CO2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
33	Methane	1.702e-06	1.554e-08	2.731e-05	3.600e-09	6.246e-06	7.369e-09
34	Ethane	0.3890	0.003550	11.70	0.001542	2.252	0.002656
35	Propane	18.00	0.1643	793.9	0.1047	107.3	0.1266
36	i-Butane	14.19	0.1295	824.5	0.1087	100.5	0.1185
37	n-Butane	26.82	0.2448	1559	0.2055	183.1	0.2160
38	i-Pentane	19.74	0.1801	1424	0.1878	156.4	0.1845
39	n-Pentane	7.485	0.06831	540.1	0.07120	58.72	0.06928
40	n-Hexane	6.367	0.05811	548.7	0.07234	56.70	0.06689
41	n-Octane	16.47	0.1503	1881	0.2480	182.6	0.2154
42	H2O	0.1128	0.001030	2.033	0.0002680	0.1395	0.0001645
43	Total	0.9979	1.0000	7585	1.0000	24.72	1.0000
44	Aqueous Phase						Phase Fraction 0.009731
45							
46	COMPONENTS	MOLAR FLOW (lbmole/hr)	MOLE FRACTION	MASS FLOW (lb/hr)	MASS FRACTION	LIQUID VOLUME FLOW (barrel/day)	LIQUID VOLUME FRACTION
47							
48	H2S	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
49	Nitrogen	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
50	CO2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
51	Methane	6.437e-14	5.978e-14	1.033e-12	5.324e-14	2.362e-13	1.775e-13
52	Ethane	7.600e-11	7.058e-11	2.285e-09	1.178e-10	4.399e-10	3.306e-10
53	Propane	8.240e-12	7.652e-12	3.634e-10	1.873e-11	4.910e-11	3.689e-11
54	i-Butane	1.024e-14	9.514e-15	5.954e-13	3.070e-14	7.255e-14	5.451e-14
55	n-Butane	2.273e-14	2.111e-14	1.321e-12	6.810e-14	1.551e-13	1.165e-13
56	i-Pentane	1.996e-17	1.853e-17	1.440e-15	7.423e-17	1.581e-16	1.188e-16
57	n-Pentane	1.418e-17	1.317e-17	1.023e-15	5.276e-17	1.113e-16	8.361e-17
58	n-Hexane	4.018e-21	3.731e-21	3.462e-19	1.785e-20	3.578e-20	2.688e-20
59	n-Octane	2.236e-27	2.077e-27	2.554e-25	1.317e-26	2.480e-26	1.863e-26
60	H2O	1.077	1.000	19.40	1.000	1.331	1.000
61	Total	0.009806	1.0000	19.40	1.0000	0.03882	1.0000
62	K VALUE						
63							
64	COMPONENTS	MIXED		LIGHT		HEAVY	
65	H2S	---		---		---	
66	Hyprotech Ltd. HYSYS.Process v2.1.1 (Build 3198) Page 2 of 3						

1	 Holloman Corporation Calgary, Alberta CANADA	Case Name: C:\My Documents\Exxon Means Processing\Means Detailed.HSC			
2		Unit Set: NewUser			
3		Date/Time: Mon Jul 21 14:42:04 2003			
4					
5					
6	Material Stream: Treated Product (continued)				Fluid Package: Basis-1
7					Property Package: PRSV
8					
9	K VALUE				
10					
11	COMPONENTS	MIXED	LIGHT	HEAVY	
12	Nitrogen	---	---	---	
13	CO2	---	---	---	
14	Methane	0.0000	0.0000	---	
15	Ethane	0.0000	0.0000	0.0000	
16	Propane	0.0000	0.0000	0.0000	
17	i-Butane	0.0000	0.0000	---	
18	n-Butane	0.0000	0.0000	---	
19	i-Pentane	0.0000	0.0000	---	
20	n-Pentane	0.0000	0.0000	---	
21	n-Hexane	0.0000	0.0000	---	
22	n-Octane	0.0000	0.0000	---	
23	H2O	0.0000	0.0000	0.0000	
24					
25					
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66	Hyprotech Ltd.		HYSYS.Process v2.1.1 (Build 3198)		Page 3 of 3

1	 Holloman Corporation Calgary, Alberta CANADA			Case Name: C:\My Documents\Exxon Means Processing\Means Detailed.HSC		
2				Unit Set: NewUser		
3				Date/Time: Mon Jul 21 14:42:10 2003		
4						
5						
6	Material Stream: Acid Gas			Fluid Package: Basis-1		
7				Property Package: PRSV		
8						
9	CONDITIONS					
10						
11		Overall	Vapour Phase			
12	Vapour / Phase Fraction	1.000	1.000			
13	Temperature: (F)	100.0 *	100.0			
14	Pressure: (psig)	5.304 *	5.304			
15	Molar Flow (MMSCFD)	0.1040	0.1040			
16	Mass Flow (lb/hr)	413.3	413.3			
17	Liquid Volume Flow (USGPM)	1.035	1.035			
18	Molar Enthalpy (Btu/lbmole)	-4.283e+04	-4.283e+04			
19	Molar Entropy (Btu/lbmole-F)	44.85	44.85			
20	Heat Flow (Btu/hr)	-4.889e+05	-4.889e+05			
21	Std Liq Volume Flow (USGPM)	1.007	1.007			
22	PROPERTIES					
23						
24		Overall	Vapour Phase			
25	Vapour / Phase Fraction	1.000	1.000			
26	Temperature: (F)	100.0 *	100.0			
27	Pressure: (psig)	5.304 *	5.304			
28	Actual Volume Flow (barrel/day)	1.453e+04	1.453e+04			
29	Mass Enthalpy (Btu/lb)	-1183	-1183			
30	Mass Entropy (Btu/lb-F)	1.239	1.239			
31	Molecular Weight	36.20	36.20			
32	Molar Density (lbmole/ft3)	0.003359	0.003359			
33	Mass Density (lb/ft3)	0.1216	0.1216			
34	Std Liquid Mass Density (lb/ft3)	---	51.17			
35	Molar Heat Capacity (Btu/lbmole-F)	8.516	8.516			
36	Mass Heat Capacity (Btu/lb-F)	0.2353	0.2353			
37	Thermal Conductivity (Btu/hr-ft-F)	0.01008	0.01008			
38	Viscosity (cP)	0.01296	0.01296			
39	Surface Tension (dyne/cm)	---	---			
40	Specific Heat (Btu/lbmole-F)	8.516	8.516			
41	Z Factor	0.9914	0.9914			
42	Molar Vapour Fraction	1.000	1.000			
43	Mass Vapour Fraction	1.000	1.000			
44	Volume Vapour Fraction	1.000	1.000			
45	Molar Volume (ft3/lbmole)	297.7	297.7			
46	Actual Gas Flow (ACFM)	56.65	56.65			
47	Actual Liquid Flow (USGPM)	---	---			
48	Std. Gas Flow (MMSCFD)	0.1040	0.1040			
49	Std. Liquid Volume Flow (barrel/day)	34.52	34.52			
50	Watson K	9.032	9.032			
51	Kinematic Viscosity (cSt)	6.654	6.654			
52	Cp/Cv	1.304	1.304			
53	Lower Heating Value (Btu/lbmole)	---	---			
54	Mass Lower Heating Value (Btu/lb)	---	---			
55	Liquid Fraction	0.0000	0.0000			
56	Partial Pressure (psig)	-10.42	-10.42			
57	COMPOSITION					
58						
59	Overall Phase			Vapour Fraction 1.000		
60						
61	COMPONENTS	MOLAR FLOW (lbmole/hr)	MOLE FRACTION	MASS FLOW (lb/hr)	MASS FRACTION	LIQUID VOLUME FLOW (barrel/day)
62						LIQUID VOLUME FRACTION
63	H2S	8.977	0.7863	305.9	0.7402	26.57
64	Nitrogen	4.214e-10	3.691e-11	1.180e-08	2.856e-11	1.002e-09
65	CO2	2.439	0.2137	107.4	0.2598	8.906
66	Hypertech Ltd.			HYSYS.Process v2.1.1 (Build 3198)		Page 1 of 2



Holloman Corporation
Calgary, Alberta
CANADA

Case Name: C:\My Documents\Exxon Means Processing\Means Detailed.HSC

Unit Set: NewUser

Date/Time: Mon Jul 21 14:42:10 2003

Material Stream: Acid Gas (continued)

Fluid Package: Basis-1

Property Package: PRSV

COMPOSITION

Overall Phase (continued)

Vapour Fraction 1.000

COMPONENTS	MOLAR FLOW (lbmole/hr)	MOLE FRACTION	MASS FLOW (lb/hr)	MASS FRACTION	LIQUID VOLUME FLOW (barrel/day)	LIQUID VOLUME FRACTION
Methane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Ethane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Propane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
i-Butane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
n-Butane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
i-Pentane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
n-Pentane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
n-Hexane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
n-Octane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
H2O	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	11.42	1.0000	413.3	1.0000	35.47	1.0000

Vapour Phase

Phase Fraction 1.000

COMPONENTS	MOLAR FLOW (lbmole/hr)	MOLE FRACTION	MASS FLOW (lb/hr)	MASS FRACTION	LIQUID VOLUME FLOW (barrel/day)	LIQUID VOLUME FRACTION
H2S	8.977	0.7863	305.9	0.7402	26.57	0.7489
Nitrogen	4.214e-10	3.691e-11	1.180e-08	2.856e-11	1.002e-09	2.826e-11
CO2	2.439	0.2137	107.4	0.2598	8.906	0.2511
Methane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Ethane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Propane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
i-Butane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
n-Butane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
i-Pentane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
n-Pentane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
n-Hexane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
n-Octane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
H2O	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.1040	1.0000	413.3	1.0000	1.035	1.0000

K VALUE

COMPONENTS	MIXED	LIGHT	HEAVY
H2S	---	---	---
Nitrogen	---	---	---
CO2	---	---	---
Methane	---	---	---
Ethane	---	---	---
Propane	---	---	---
i-Butane	---	---	---
n-Butane	---	---	---
i-Pentane	---	---	---
n-Pentane	---	---	---
n-Hexane	---	---	---
n-Octane	---	---	---
H2O	---	---	---