

**APPENDIX A**  
**SUMMARY OF DATA FROM RUN CT-256-6**

Table A-1  
 First Stage Fischer-Tropsch Slurry Reactor  
 Operating Conditions and Material Balances  
 (Second-Stage Not Operative)  
 (Run CT-258-6)

	6-3	6-4	6-5	6-6	6-10	6-11	6-14
(Nitrogen-Free Basis)							
M.B. No.	0.2	9.2	10.2	17.5	16.2	17.2	20.8
Days On-stream							
First-Stage Conditions:							
Charge H <sub>2</sub> /CO (Molar)	0.700	0.714	0.714	0.720	0.684	0.700	0.644
Temperature, °C	250	249	249	250	249	249	249
Pressure, MPa	1.170	2.104	2.104	2.104	2.107	2.107	2.107
Feed Sup. Vel., cm/s	2.926	2.904	2.904	3.010	3.001	3.012	3.015
Space Vel., M/gFe-hr	2.113	3.908	3.908	4.020	3.900		1
N <sub>2</sub> in Feed, Mol %	1.2	0.7	0.7	0.7	3.2		
Conversions, Mol %:							
H <sub>2</sub>	50.06	43.02	42.22	38.04	30.43		
CO	61.11	45.25	43.02	37.00	26.69		
H <sub>2</sub> +CO	59.02	44.05	43.15	38.10	27.50	35.12	4
Yields, Wt % of Products:							
Hydrocarbons (1)	16.92	9.05	9.07	9.59	7.92	8.15	9.50
CO <sub>2</sub>	41.30	31.30	28.43	25.05	10.10	29.00	24.60
H <sub>2</sub> O (1)	0.71	1.50	1.21	1.00	1.32	1.25	0.65
H <sub>2</sub>	2.24	2.07	3.94	3.00	3.20	2.91	3.35
CO	30.04	54.30	57.45	60.00	69.30	50.00	61.74
Total	100	100	100	100	100	100	100
Bal Recovery, Wt % of Charge:	95.22	95.73	92.94	90.53	102.14	100.20	85.84
gHC/kg <sup>3</sup> (H <sub>2</sub> +CO) conv.:	209	161	182	100	227	189	159
(H/C) Atomic Ratio in HC:	2.12	2.12	2.12	2.12	2.11	2.13	2.12
Selectivities, Wt % of HC:							
Methane	2.03	2.45	2.31	2.19	2.15	2.04	2.09
Ethane	2.15	2.13	1.95	1.84	1.36	1.84	1.74
Ethane	0.40	0.45	0.41	0.30	0.31	0.40	0.38
Propane	2.00	2.04	2.43	2.20	1.77	2.35	2.19
Propane	0.53	0.61	0.58	0.54	0.43	0.62	0.58
Butenes	2.20	2.11	1.94	1.83	1.51	2.00	1.80
i-Butane	0.14	0.24	0.23	0.24	0.10	0.37	0.24
n-Butane	0.54	0.63	0.60	0.50	0.40	0.72	0.67
C <sub>5</sub> - C <sub>11</sub> (2)	7.00	6.95	6.40	6.05	3.30	6.40	5.80
Light Hydrocarbons (3)	13.50	18.10	19.05	15.52	23.63	19.41	17.50
Heavy Hydrocarbons (4)	10.00	12.50	11.05	10.20	15.42	15.49	15.97
Slurry Rx.-Wax	50.23	51.00	52.40	50.00	49.10	47.20	50.50
Total	100	100	100	100	100	100	100

(1) Including Oxygenates  
 (2) In Gas Phase Only  
 (3) Collected in Chilled and Ambient Condensers  
 (4) Collected in Hot Condenser

Table A-1(cont'd)  
 First Stage Fischer-Tropsch Slurry Reactor  
 Operating Conditions and Material Balances  
 (Second-Stage Not Operative)  
 (Run CT-256-6)

	6-17	6-18	6-19	6-20	6-21	6-22	6-23	6-24
(Nitrogen-Free Basis)								
M.B. No.	23.8	24.8	25.8	27.6	30.3	31.6		
Days On-stream								
First-Stage Conditions:								
Charge H <sub>2</sub> /CO (Molar)	0.676	0.679	0.690	0.721	0.694	0.651		
Temperature, °C	249	249	249	249	249	249		
Pressure, MPa	1.156	1.156	1.177	1.177	1.103	1.170		
Feed Sup. Vel., cm/s	1.198	1.214	1.205	2.009	3.114	3.059		
Space Vel., NL/gFe-hr	0.509	0.512	0.507	1.203	1.317	1.299		
N <sub>2</sub> in Feed, Mol %	3.1	4.1	4.2	1.0	7.1	7.4		
Conversions, Mol % :								
H <sub>2</sub>	83.43	82.19	81.85	30.68	41.07	40.16		
CO	91.35	90.09	90.0	34.00	34.18	31.52		
H <sub>2</sub> +CO	88.16	86.00	86.71	35.52	30.00	34.92		
Yields, Wt % of Products :								
Hydrocarbons (1)	24.62	22.41	22.55	10.94	9.30	7.86		
CO <sub>2</sub>	64.25	63.55	64.24	26.26	25.25	24.58		
H <sub>2</sub> O (3)	0.69	2.08	1.23	0.18	0.09	0.20		
H <sub>2</sub>	0.98	0.97	1.00	3.01	2.78	2.65		
CO	9.62	10.99	10.99	59.72	62.99	64.63		
Total	100	100	100	100	100	100		
Ball Recovery, Wt % of Charge:	95.33	85.56	85.70	103.54	99.32	100.76		
gHC/kg <sub>3</sub> (H <sub>2</sub> +CO) conv.:	187	172	173	241	175	179		
(H/C) Atomic Ratio in HC :	2.11	2.11	2.11	2.12	2.12	2.12		
Selectivities, Wt % of HC :								
Methane	2.28	2.52	2.12	2.39	2.39	2.49		
Ethane	1.21	1.20	1.37	1.03	1.96	1.98		
Ethene	3.27	0.30	0.33	0.39	0.30	0.30		
Propane	1.70	1.90	1.94	2.33	2.49	2.50		
Propene	0.38	0.39	0.46	0.51	0.53	0.53		
Butanes	1.52	1.73	1.74	1.95	2.11	2.14		
i-Butane	0.00	0.07	0.07	0.24	0.27	0.31		
n-Butane	0.43	0.40	0.49	0.50	0.62	0.63		
C <sub>5</sub> - C <sub>11</sub> (2)	3.75	4.24	4.93	6.05	7.46	7.80		
Light Hydrocarbons (3)	19.51	19.15	18.32	27.00	23.00	20.04		
Heavy Hydrocarbons (4)	13.88	12.58	14.87	3.12	7.28	7.84		
Slurry Rx.-Wax	55.00	55.00	55.00	52.49	50.98	50.00		
Total	100	100	100	100	100	100		

- (1) Including Oxygenates
- (2) In Gas Phase Only
- (3) Collected in Chilled and Ambient Condensers
- (4) Collected in Hot Condenser

Table A-2  
Composition of Hydrocarbon Products from  
First-Stage Slurry F-T Reactor  
(Run CT-266-8)

M.B.No. Days On-stream	6-3	6-4	6-5	6-6	6-10	6-11	6-14
METHANE	2.83	2.45	2.31	2.19	2.15	2.04	2.09
ETHENE	2.15	2.13	1.95	1.94	1.36	1.84	1.74
ETHANE	0.46	0.45	0.41	0.38	0.31	0.40	0.38
PROPENE	2.88	2.64	2.43	2.28	1.77	2.35	2.19
PROPANE	0.53	0.51	0.58	0.54	0.43	0.52	0.58
I-BUTANE	0.14	0.24	0.23	0.24	0.10	0.37	0.24
1-BUTENE+2-METHYLPROPENE	2.21	2.08	1.94	1.83	1.51	2.09	1.86
N-BUTANE	0.54	0.63	0.68	0.58	0.48	0.72	0.67
TRANS-2-BUTENE	0.03	0.00	0.00	0.00	0.00	0.00	0.00
CIS-2-BUTENE	0.03	0.03	0.00	0.00	0.00	0.00	0.00
3-METHYL-1-BUTENE	0.44	0.16	0.14	0.13	0.59	0.00	0.00
I-PENTANE	0.25	0.30	0.27	0.28	0.64	0.07	0.07
1-PENTENE	1.89	1.54	1.46	1.46	1.13	1.07	1.45
2-METHYL-1-BUTENE	0.06	0.07	0.06	0.06	0.36	0.06	0.06
N-PENTANE	0.43	0.56	0.48	0.46	0.11	0.62	0.54
TRANS-2-PENTENE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CIS-2-PENTENE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HEXENES + ISO-HEXANES	0.00	0.00	0.05	0.00	0.00	0.07	0.10
2,3-DIMETHYLBUTANE	0.00	0.06	0.00	0.00	0.00	0.00	0.00
2-METHYLPENTANE	0.22	0.17	0.16	0.14	0.64	0.13	0.13
3-METHYLPENTANE	0.03	0.07	0.07	0.07	0.00	0.11	0.12
1-HEXENE	1.37	1.16	1.14	1.00	0.00	1.36	1.17
N-HEXANE	0.39	0.39	0.38	0.37	0.21	0.50	0.46
HEPTENES + ISO-HEPTANES	0.24	0.09	0.09	0.04	0.00	0.13	0.13
1-HEPTENE	0.06	0.72	0.73	0.70	0.30	0.84	0.77
N-HEPTANE	0.24	0.25	0.24	0.24	0.09	0.31	0.30
1-OCTENE	0.44	0.39	0.37	0.33	0.11	0.46	0.35
ISO-C8-P + 0 + N6 + N6	0.00	0.00	0.05	0.00	0.00	0.00	0.00
N-OCTANE	0.11	0.13	0.12	0.10	0.05	0.14	0.11
C9-CLEFTINS + ISO-P	0.15	0.91	0.58	0.19	0.10	0.10	0.08
ACETONE	0.00	0.00	0.00	0.00	0.17	0.11	0.11
I-PROPANE	0.00	0.00	0.00	0.00	0.14	0.29	0.25
UNKNOWN LITE HYDRO-CARB LIQ (1)	13.58	18.18	19.35	15.52	23.50	19.41	17.58
UNKNOWN HWY HYDRO-CARB LIQ (2)	10.08	12.59	11.05	18.28	15.42	15.49	15.97
SLURRY REACTOR WAX	56.82	51.00	52.46	50.00	49.18	47.28	50.56

(1) Collected in Ambient and Chilled Condensers  
(2) Collected in Hot Condenser

Table A-2(cont'd)  
Composition of Hydrocarbon Products from  
First-Stage Slurry F-T Reactor  
(Run CT-260-8)

M.B.No.	6-17	6-18	6-19	6-20	6-23	6-24
Days On-stream	23.8	24.8	25.8	27.6	30.6	31.6
METHANE	2.28	2.52	2.12	2.39	2.39	2.40
ETHENE	1.21	1.38	1.37	1.83	1.96	1.98
ETHANE	0.27	0.30	0.33	0.39	0.38	0.38
PROPENE	1.70	1.90	1.94	2.33	2.48	2.50
PROPANE	0.36	0.39	0.40	0.51	0.53	0.53
1-BUTANE	0.00	0.07	0.07	0.24	0.27	0.31
1-BUTENE+2-METHYLPROPENE	1.62	1.70	1.74	1.95	2.11	2.14
N-BUTANE	0.13	0.48	0.49	0.58	0.62	0.63
TRANS-2-BUTENE	0.00	0.01	0.00	0.00	0.00	0.00
CIS-2-BUTENE	0.00	0.02	0.00	0.00	0.00	0.00
3-METHYL-1-BUTENE	0.02	0.07	0.09	0.13	0.14	0.15
1-PENTANE	0.10	0.00	0.00	0.06	0.00	0.00
1-PENTENE	1.27	1.44	1.40	1.82	1.78	1.84
2-METHYL-1-BUTENE	0.03	0.04	0.07	0.00	0.00	0.00
N-PENTANE	0.35	0.40	0.44	0.50	0.54	0.54
TRANS-2-PENTENE	0.01	0.01	0.02	0.00	0.00	0.00
CIS-2-PENTENE	0.01	0.01	0.04	0.00	0.00	0.00
HEXENES + ISO-HEXANES	0.10	0.12	0.20	0.25	0.19	0.21
2,3-DIMETHYLBUTANE	0.01	0.00	0.00	0.00	0.00	0.00
2-METHYLPENTANE	0.02	0.01	0.06	0.09	0.13	0.13
3-METHYLPENTANE	0.01	0.03	0.05	0.00	0.00	0.00
1-HEXENE	0.03	1.00	1.00	1.30	1.40	1.57
N-HEXANE	0.24	0.20	0.32	0.44	0.47	0.48
HEPTENES + ISO-HEPTANES	0.09	0.08	0.16	0.00	0.12	0.11
1-HEPTENE	0.30	0.44	0.50	1.00	1.10	1.19
N-HEPTANE	0.11	0.13	0.17	0.32	0.38	0.37
1-OCTENE	0.11	0.13	0.16	0.51	0.67	0.70
ISO-C8-P + 0 + N6 + N8	0.00	0.00	0.00	0.60	0.60	0.60
N-OCTANE	0.03	0.04	0.07	0.14	0.19	0.19
C9-OLEFINS + ISO-P	0.02	0.02	0.04	0.14	0.21	0.23
ACETONE	0.06	0.12	0.14	0.23	0.22	0.22
I-PROPANOL	0.15	0.10	0.23	0.25	0.24	0.22
UNKNOWN LITE HYDRO-CARB LIQ (1)	19.51	19.15	18.32	27.00	23.00	28.04
UNKNOWN Hvy HYDRO-CARB LIQ (2)	13.00	12.50	14.07	3.12	7.28	2.04
SLURRY REACTOR WAX	55.00	55.00	55.00	52.49	50.00	50.00

(1) Collected in Ambient and Chilled Condensers  
(2) Collected in Hot Condenser

**APPENDIX B**

**SUMMARY OF DATA FROM RUN CT-258-7**

Table B-1  
**First Stage Fischer-Tropsch Slurry Reactor**  
**Operating Conditions and Material Balances**  
**(Second-Stage Not Operative)**  
 (Run CT-256-7)

	7-30	7-37	7-38	7-39	7-40	7-41	7-42	7-43	7-44
(Nitrogen-Free Basis)									
M.B. No.	41.4	42.4	43.4	44.4	45.4	46.4	47.4	48.4	49.4
Days On-stream									
First-Stage Conditions:									
Charge H <sub>2</sub> /CO (Molar)	0.673	0.676	0.676	0.677	0.682	0.677	0.680	0.678	0.678
Temperature, °C	257	257	257	256	256	256	256	257	256
Pressure, MPa	2.515	2.515	2.515	2.508	2.508	2.515	2.508	2.509	2.521
Feed Sup. Vel., cm/s	3.298	4.012	4.038	4.024	4.024	4.026	3.995	4.044	4.003
Space Vel., NL/gFe-hr	3.063	4.754	4.881	4.881	4.930	5.024	5.020	5.081	3.335
N <sub>2</sub> in Feed, Mol %	0.5	0.5		0.7	0.8	0.7	0.7	0.8	0.7
Conversions, Mol %:									
H <sub>2</sub>	46.07	41.15	41.24	27	42.51	48.26	47.54	39.78	44.42
CO	42.45	30.79	30.75	1.24	30.66	31.99	31.88	34.36	44.35
H <sub>2</sub> +CO	43.91	30.54	30.58	36.93	38.68	38.56	38.22	36.72	44.32
Yields, Wt % of Products:									
Hydrocarbons (1)	11.21	9.62	10.05	9.59	9.16	8.64	8.98	9.53	11.33
CO <sub>2</sub>	29.71	26.23	26.05	25.13	25.60	24.03	24.23	24.01	31.50
H <sub>2</sub> O (1)	1.02	1.04	1.08	1.05	1.34	1.05	0.95	1.11	0.97
H <sub>2</sub>	2.53	2.78	2.89	2.81	2.71	2.37	2.40	2.82	2.61
CO	55.53	61.32	59.52	61.42	61.20	63.91	63.44	62.53	53.60
Total	100	100	100	100	100	100	100	100	100
B <sub>2</sub> Recovery, Wt % of Charge:	90.77	90.24	101.26	100.31	99.52	101.40	102.29	99.57	99.11
(CO <sub>2</sub> )(H <sub>2</sub> )/(CO)(H <sub>2</sub> ):	7.57	6.56	6.37	6.25	4.81	4.03	5.52	5.55	9.01
gHC/Na <sub>3</sub> (H <sub>2</sub> +CO) conv.:	190	171	205	202	182	176	186	201	197
(H/C) Atomic Ratio in HC:	2.14	2.16	2.14	2.15	2.16	2.16	2.15	2.15	2.14
Selectivities, Wt % of HC:									
Methane	3.26	3.83	3.48	3.38	3.63	3.48	3.38	3.38	3.12
Ethene	2.00	2.32	2.11	2.12	2.31	2.23	2.19	2.41	1.51
Ethane	0.52	0.66	0.54	0.54	0.59	0.54	0.52	0.61	0.46
Propene	2.39	2.76	2.51	2.52	2.74	2.70	2.68	2.88	1.84
Propene	0.92	1.08	0.94	0.95	1.01	0.96	0.96	1.04	0.79
Butenes	1.92	2.23	2.09	2.14	2.33	2.34	2.31	2.26	1.53
i-Butane	0.68	0.73	0.62	0.60	0.67	0.67	0.67	0.69	0.60
n-Butane	1.07	1.23	1.09	1.06	1.15	1.16	1.10	1.15	0.98
C <sub>5</sub> - C <sub>11</sub> (2)	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
Light Hydrocarbons (3)	26.74	30.50	24.96	26.42	26.96	27.91	26.72	26.65	24.10
Heavy Hydrocarbons (4)	20.44	12.19	20.30	20.24	21.67	21.85	23.66	17.13	19.55
Slurry R <sub>x</sub> -Wax	35.00	35.00	35.00	34.53	31.10	29.26	28.21	34.92	39.85
Total	100	100	100	100	100	100	100	100	100

- (1) Including Oxygenates
- (2) In Gas Phase Only
- (3) Collected in Chilled and Ambient Condensers
- (4) Collected in Hot Condenser

Table B-1 (Cont'd)  
 First Stage Fischer-Tropsch Slurry Reactor  
 Operating Conditions and Material Balances  
 (Second-Stage Not Operative)  
 (Run CT-256-7)

	7-45	7-46	7-47	7-48	7-49	7-50	7-51	7-52	7-53	7-54
(Nitrogen-Free Basis)										
M.S. No.	51.4	52.4	53.4	54.4	55.4	57.4	59.4	60.4	62.3	63.5
Days On-stream										
First-Stage Conditions:										
Charge H <sub>2</sub> /CC (Molar)	0.677	0.688	0.688	0.681	0.691	0.678	0.679	0.675	0.671	0.677
Temperature, °C	256	257	256	256	258	259	257	257	257	256
Pressure, MPa	2.521	2.521	2.521	2.521	2.521	2.521	2.521	2.521	2.521	2.515
Feed Sup. Vel., cm/y	3.998	4.000	4.000	4.007	4.017	4.009	4.010	4.013	4.048	4.015
Space Vel., NL/gfs-hr	3.372	3.412	3.445	3.468	3.541	3.548	3.707	3.742	3.844	3.998
N <sub>2</sub> In Feed, Mol %	0.7	0.7	0.5	0.7	0.7	0.7	0.7	0.7	1.2	1.2
Conversions, Mol % :										
H <sub>2</sub>	51.92	42.97	43.38	42.97	44.16	41.36	42.49	49.42	40.49	51.96
CO	35.24	42.33	41.61	40.6	42.61	38.10	40.13	36.42	37.96	29.37
H <sub>2</sub> +CO	41.97	42.69	42.32	41.54	43.35	39.41	41.09	41.66	38.98	35.49
Yields, Wt % of Products :										
Hydrocarbons (1)	10.75	12.30	12.57	12.30	11.33	10.32	11.55	10.68	10.81	8.42
CO <sub>2</sub>	28.19	29.39	29.60	28.01	30.06	27.32	27.90	28.72	25.97	22.43
H <sub>2</sub> O (1)	0.90	0.90	0.90	0.97	0.99	0.97	0.89	0.85	0.91	0.73
H <sub>2</sub>	2.10	2.06	2.06	2.04	2.04	2.72	2.66	2.30	2.76	2.20
CO	58.05	54.75	54.86	56.00	54.98	58.67	56.54	59.45	59.55	65.21
Total	100	100	100	100	100	100	100	100	100	100
Balance Recovery, Wt % of Charge :	100.30	100.34	101.51	101.04	99.09	100.53	100.87	101.91	99.31	101.65
(CO <sub>2</sub> ) (H <sub>2</sub> )/(CO) (H <sub>2</sub> O) :	6.44	9.02	8.22	7.70	8.34	7.46	8.41	6.95	7.55	5.79
gHC/Nm <sup>3</sup> (H <sub>2</sub> +CO) conv. :	212	225	234	234	201	204	228	203	215	173
(H/C) Atomic Ratio in HC :	2.13	2.13	2.13	2.13	2.14	2.15	2.14	2.14	2.14	2.15
Selectivities, Wt % of HC :										
Methane	2.05	2.05	2.73	2.68	3.26	3.44	3.05	3.21	3.31	3.93
Ethane	1.47	1.58	1.77	1.63	2.22	2.67	1.81	1.94	2.01	2.46
Ethane	0.39	0.42	0.45	0.47	0.57	0.52	0.52	0.46	0.49	0.52
Propene	1.81	1.91	2.44	2.24	2.69	2.67	2.20	2.37	2.42	2.80
Propene	0.71	0.77	0.80	0.84	0.99	0.97	0.82	0.84	0.90	0.90
Butenes	0.60	1.56	1.72	1.70	2.14	2.07	1.78	1.98	1.92	2.07
i-Butane	0.04	0.05	0.05	0.07	0.08	0.08	0.07	0.06	0.08	0.09
n-Butane	0.92	0.91	0.94	0.97	1.13	1.13	0.97	0.97	1.03	0.98
C <sub>5</sub> - C <sub>11</sub> (2)	0.80	4.93	4.91	5.27	5.72	6.10	4.92	5.44	5.43	5.75
Light Hydrocarbons (3)	22.59	22.33	21.90	21.72	26.54	26.76	25.03	24.04	24.26	25.93
Heavy Hydrocarbons (4)	18.68	18.72	18.65	17.16	19.95	19.23	22.95	17.69	17.26	18.52
Slurry Rx.-Wax	43.78	45.27	45.99	44.13	33.57	35.00	35.00	39.54	39.90	35.30
Total	100	100	100	100	100	100	100	100	100	100

(1) Including Oxygenates  
 (2) In Gas Phase Only  
 (3) Collected in Cooled and Ambient Condensers  
 (4) Collected in Hot Condenser



**Table B-1 (Cont'd)**  
**First Stage Fischer-Tropsch Slurry Reactor**  
**Operating Conditions and Material Balances**  
**(Second-Stage Not Operative)**  
 (Run CT-256-7)

	7-56	7-56	7-57	7-58	7-59	7-60	7-61	7-62	7-63	7-64
(Nitrogen-Free Basis)										
M.B. No.	64.4	65.5	66.6	67.4	68.4	69.4	70.4	71.4	72.4	73.4
Days On-stream										
First-Stage Conditions:										
Charge H <sub>2</sub> /CO (Molar)	0.684	0.687	0.685	0.677	0.676	0.676	0.678	0.674	0.675	0.673
Temperature, °C	255	257	258	258	275	275	275	275	274	273
Pressure, MPa	2.515	2.516	2.521	2.521	2.515	2.515	2.515	2.521	2.521	2.521
Feed Sup. Vel., cm/s	4.043	4.061	4.048	4.048	4.100	4.167	4.184	4.180	4.189	4.190
Space Vel., ML/gFe-hr	4.033	4.100	4.133	4.171	4.228	4.276	4.330	4.423	4.576	4.682
N <sub>2</sub> in Feed, Mol %	1.2	1.1	1.1	1.2	1.0	1.0	1.1	1.1	1.4	1.5
Conversions, Mol % :										
H <sub>2</sub>	39.18	43.23	44.86	36.47	60.00	60.57	64.47	57.05	59.77	58.27
CO	33.00	31.74	28.20	30.93	60.30	63.77	58.78	59.17	63.40	60.55
H <sub>2</sub> +CO	35.98	36.42	34.98	33.17	60.51	62.48	61.08	58.32	61.94	59.63
Yields, Wt % of Products :										
Hydrocarbons (1)	9.29	9.77	9.01	9.19	15.50	16.12	15.35	15.32	17.80	17.94
CO <sub>2</sub>	24.27	22.92	22.14	22.75	44.40	46.51	43.55	40.61	44.94	42.60
H <sub>2</sub> O (1)	0.84	1.14	1.19	1.02	0.80	0.87	0.89	0.80	0.87	0.80
H <sub>2</sub>	2.84	2.62	2.47	2.88	1.81	1.84	1.59	1.81	1.85	1.79
CO	02.75	03.55	05.18	04.15	37.44	34.65	37.63	35.46	37.77	35.76
Total	100	100	100	100	100	100	100	100	100	100
Ball Recovery, Wt % of Charge :	100.43	102.20	104.89	102.00	101.03	99.85	104.36	100.76	100	100
(CO <sub>2</sub> )(H <sub>2</sub> )/(CO)(H <sub>2</sub> O) :	7.45	4.72	4.63	6.08	14.21	16.09	11.78	16.91	15	15
gHC/Nm <sup>3</sup> (H <sub>2</sub> +CO) conv. :	201	212	209	221	201	201	218	225	226	226
(H/C) Atomic Ratio in HC :	2.15	2.14	2.14	2.14	2.15	2.16	2.14	2.16	2.15	2.15
Selectivities, Wt % of HC :										
Methane	3.06	3.10	3.10	3.29	3.83	3.95	3.33	4.16	3.58	3
Ethane	2.23	2.36	2.00	2.11	2.47	2.57	2.30	2.81	2.41	2.25
Ethene	0.54	0.46	0.43	0.46	0.56	0.62	0.54	0.69	0.61	0.58
Propane	2.64	3.15	2.74	2.78	3.26	3.40	3.06	3.67	3.16	3.02
Propene	0.90	0.98	0.79	0.84	0.80	0.94	0.85	1.03	0.90	0.87
Butenes	2.08	2.54	2.24	2.20	2.65	2.80	2.53	2.93	2.51	2.49
i-Butane	0.88	0.89	0.86	0.86	0.88	0.86	0.86	0.87	0.86	0.86
n-Butane	1.13	0.97	0.93	0.99	1.03	1.10	1.00	1.17	1.02	1.01
C <sub>5</sub> - C <sub>11</sub> (2)	5.95	6.26	6.03	6.14	5.27	10.20	4.99	5.66	4.94	9.39
Light Hydrocarbons (3)	26.38	24.43	24.49	24.92	25.98	28.06	26.83	25.70	23.22	19.96
Heavy Hydrocarbons (4)	18.29	18.31	17.64	16.55	23.61	23.86	26.61	23.62	22.02	20.85
Slurry Rx.-Wax	35.00	30.54	38.00	30.72	29.57	28.89	27.10	27.47	36.00	35.00
Total	100	100	100	100	100	100	100	100	100	100

(1) Including Oxygenates  
 (2) In Gas Phase Only  
 (3) Collected in Chilled and Ambient Condensers  
 (4) Collected in Hot Condenser

Table B-1 (Cont'd)  
 First Stage Fischer-Tropsch Slurry Reactor  
 Operating Conditions and Material Balances  
 (Second-Stage Not Operative)  
 (Run CT-256-7)

	7-66	7-66	7-71	7-78	7-82	7-83	7-84	7-95
(Nitrogen-Free Basis)								
N.B. No.	74.4	75.4	80.5	88.8	92.8	93.8	94.8	95.8
Days On-stream	0.677	0.673	0.678	0.687	0.679	0.678	0.671	0.671
First-Stage Conditions:								
Charge H <sub>2</sub> /CO (Molar)	274	276	276	262	279	279	279	278
Temperature, °C	2.521	2.521	2.515	2.184	2.515	2.508	2.508	2.508
Pressure, MPa	4.177	4.217	4.178	4.805	4.284	4.245	4.287	4.233
Feed Sup. Vel., cm/s	4.848	4.953	6.537	6.776	6.984	6.931	6.965	7.000
Space Vel., N <sub>2</sub> /gFe-hr	1.4	1.7	1.6	1.2	1.2	1.2	1.2	1.3
N <sub>2</sub> in Feed, Mol %								
Conversions, Mol % :								
H <sub>2</sub>	58.88	58.23	39.79	24.86	41.37	35.86	30.40	24.94
CO	61.82	60.57	39.53	33.96	51.69	47.19	41.89	34.57
H <sub>2</sub> +CO	68.15	59.83	39.63	38.28	47.52	43.83	36.80	30.71
Yields, Wt % of Products :								
Hydrocarbons (1)	17.72	17.72	11.87	8.98	13.90	13.12	11.39	9.39
CO <sub>2</sub>	44.19	42.47	25.57	21.42	32.75	29.84	25.43	21.31
H <sub>2</sub> (1)	0.88	0.93	0.91	0.96	1.18	1.04	1.18	1.88
H <sub>2</sub>	1.82	1.90	2.86	3.67	2.57	3.38	3.35	3.59
CO	35.39	35.97	58.79	65.88	48.37	52.91	58.67	64.63
Total	100	100	100	100	100	100	100	100
Bal Recovery, Wt % of Charge :	104.98	101.65	98.81	98.72	95.10	95.10	95.71	96.58
(CO <sub>2</sub> ) (H <sub>2</sub> )/(CO) (H <sub>2</sub> O) :	14.77	13.34	7.77	8.88	10.37	9.56	7.15	6.24
gHC/Nm <sup>3</sup> (H <sub>2</sub> +CO) conv. :	241	238	228	222	217	226	231	238
(H/C) Atomic Ratio in HC :	2.16	2.16	2.16	2.18	2.16	2.15	2.15	2.15
Selectivities, Wt % of HC :								
Methane	3.78	3.57	3.88	4.48	3.92	3.58	3.48	3.48
Ethene	2.58	2.58	2.64	1.58	2.74	2.45	2.42	2.39
Ethane	0.67	0.67	0.93	0.69	0.64	0.58	0.57	0.57
Propene	3.45	3.44	3.35	2.40	3.54	3.18	3.10	3.07
Propane	0.97	0.96	0.95	0.78	0.94	0.88	0.85	0.87
Butene	2.82	2.82	2.62	1.95	2.88	2.58	2.51	2.49
i-Butane	0.87	0.88	0.88	0.88	0.88	0.87	0.88	0.88
n-Butane	1.69	1.68	1.63	0.88	1.64	0.98	0.98	0.99
C <sub>5</sub> - C <sub>11</sub> (2)	12.45	18.44	8.29	12.67	6.68	8.11	8.88	9.33
Light Hydrocarbons (3)	15.39	16.48	18.82	16.33	15.76	16.37	16.18	15.11
Heavy Hydrocarbons (4)	28.34	21.72	24.18	21.33	25.28	24.58	24.55	24.88
Slurry Rx.-Max	36.88	35.88	36.88	36.88	36.88	36.88	36.88	36.88
Total	100	100	100	100	100	100	100	100

(1) Including Oxygenates  
 (2) In Gas Phase Only  
 (3) Collected in Chilled and Ambient Condensers  
 (4) Collected in Hot Condenser

Table B-2  
Composition of Hydrocarbon Products from  
First-Stage Slurry F-T Reactor  
(Run CT-260-7)

M.B. No. Days On-stream	7-36	7-37	7-38	7-39	7-40	7-41	7-42	7-43	7-44
METHANE	3.26	3.03	3.40	3.38	3.03	3.48	3.38	3.36	3.12
ETHENE	2.00	2.32	2.11	2.12	2.31	2.23	2.19	2.41	1.51
ETHANE	0.52	0.66	0.54	0.54	0.59	0.54	0.52	0.61	0.46
PROPANE	2.39	2.76	2.51	2.52	2.74	2.70	2.66	2.88	1.84
PROPENE	0.92	1.06	0.94	0.95	1.01	0.96	0.96	1.04	0.79
I-BUTANE	0.80	0.73	0.62	0.66	0.67	0.67	0.67	0.69	0.60
1-BUTENE+2-METHYLPROPENE	1.92	2.23	2.00	2.01	2.18	2.18	2.14	2.28	1.53
N-BUTANE	1.07	1.23	1.09	1.08	1.15	1.10	1.10	1.15	0.98
CIS-2-5-UTENE	0.00	0.00	0.00	0.13	0.15	0.10	0.16	0.00	0.00
3-METHYL-1-BUTENE	0.12	0.14	0.13	0.08	0.08	0.06	0.07	0.18	0.08
1-PENTANE	0.48	0.61	0.51	1.53	1.64	1.67	1.63	0.09	0.29
1-PENTENE	1.44	1.69	1.52	0.00	0.06	0.06	0.09	1.62	1.27
2-METHYL-1-BUTENE	0.05	0.05	0.06	0.00	0.00	0.00	0.00	0.07	0.00
N-PENTANE	0.07	1.00	0.86	0.89	0.92	0.91	0.90	0.91	0.83
CYCLOPENTANE	0.10	0.11	0.10	0.00	0.00	0.00	0.00	0.00	0.00
HEXENES + ISO-HEXANES	1.03	1.25	1.09	0.11	0.12	0.12	0.11	0.12	0.06
2,3-DIMETHYLBUTANE	0.00	0.00	0.00	0.17	0.17	0.17	0.20	0.00	0.00
2-METHYLPENTANE	0.14	0.19	0.15	0.09	0.09	0.09	0.13	0.17	0.16
3-METHYLPENTANE	0.00	0.10	0.08	0.00	0.06	0.06	0.00	0.09	0.07
1-HEXENE	0.00	0.00	0.00	1.12	1.18	1.23	1.18	1.17	0.95
N-HEXANE	0.64	0.78	0.66	0.60	0.70	0.72	0.78	0.68	0.63
HEPTENES + ISO-HEPTANES	0.00	0.00	0.00	0.07	0.08	0.08	1.69	0.09	0.08
1-HEPTENE	0.00	0.00	0.00	0.59	0.63	0.65	0.61	0.54	0.50
3-METHYLHEXANE	0.52	0.70	0.50	0.00	0.00	0.00	0.00	0.00	0.00
1-TRANS-3-DIMETHYL-N6	0.33	0.45	0.35	0.37	0.38	0.40	0.51	0.38	0.34
N-HEPTANE	0.00	0.00	0.00	0.19	0.22	0.21	0.20	0.21	0.18
1-OCTANE	0.00	0.00	0.00	0.11	0.13	0.12	0.11	0.12	0.11
N-OCTANE	0.20	0.37	0.30	0.00	0.00	0.00	0.00	0.00	0.00
TOLUENE	0.00	0.00	0.00	0.52	0.55	0.57	0.53	0.53	0.00
ACETONE	0.00	0.00	0.00	0.43	0.48	0.50	0.45	0.45	0.17
I-PROPANOL	25.74	30.50	24.90	25.42	25.98	27.91	25.72	28.65	24.10
UNKNOWN LITE HYDRO-CARB LIQ (1)	20.44	12.19	20.30	20.24	21.67	21.85	23.68	17.13	19.55
UNKNOWN HVY HYDRO-CARB LIQ (2)	35.00	35.00	35.00	34.53	31.10	29.26	28.21	34.92	39.85
SLURRY REACTOR-WAX									

(1) Collected in Ambient and Chilled Condensers

(2) Collected in Hot Condenser

Table B-2 (Cont'd)  
Composition of Hydrocarbon Products from  
First-Stage Slurry F-T Reactor  
(Run CY-268-7)

M.B. No.	7-46	7-46	7-47	7-48	7-49	7-50	7-51	7-52	7-53	7-54
Days On-stream	51.4	52.4	53.4	54.4	55.4	57.4	59.4	60.4	62.3	63.5
METHANE	2.65	2.69	2.73	2.68	3.25	3.44	3.05	3.21	3.31	3.93
ETHENE	1.47	1.58	1.77	1.83	2.22	2.07	1.81	1.94	2.01	2.46
ETHANE	0.39	0.42	0.46	0.47	0.67	0.52	0.45	0.46	0.49	0.52
PROPENE	1.81	1.91	2.13	2.24	2.69	2.57	2.26	2.37	2.42	2.80
PROPANE	0.71	0.75	0.80	0.84	0.99	0.97	0.82	0.84	0.90	0.98
1-BUTANE	0.64	0.65	0.68	0.71	0.88	0.84	0.67	0.68	0.68	0.69
1-BUTENE + 2-METHYLPROPENE	0.66	1.56	1.72	1.79	2.14	2.07	1.78	1.90	1.92	2.07
N-BUTANE	0.92	0.91	0.94	0.97	1.13	1.13	0.97	0.97	1.03	0.98
3-METHYL-1-BUTENE	0.69	0.69	0.71	0.72	0.84	0.84	0.67	0.67	0.71	0.71
1-PENTANE	1.60	0.66	0.66	0.67	0.69	0.68	0.67	0.67	0.68	0.69
1-PENTENE	1.26	1.22	1.27	1.32	1.55	1.51	1.27	1.39	1.37	1.41
2-METHYL-1-BUTENE	0.60	0.64	0.65	0.66	0.66	0.66	0.65	0.65	0.66	0.67
N-PENTANE	0.79	0.75	0.75	0.78	0.89	0.91	0.78	0.78	0.82	0.75
HEXENES + ISO-HEXANES	0.60	0.67	0.68	0.68	0.81	0.81	0.69	0.71	0.70	0.74
2-METHYLPENTANE	0.15	0.14	0.13	0.14	0.15	0.19	0.17	0.17	0.18	0.20
3-METHYLPENTANE	0.07	0.07	0.06	0.07	0.09	0.08	0.08	0.07	0.07	0.08
1-HEXENE	0.92	0.88	0.88	0.93	1.04	1.05	0.85	0.97	0.93	0.99
N-HEXANE	0.51	0.57	0.54	0.57	0.62	0.66	0.55	0.57	0.59	0.56
HEPTENES + ISO-HEPTANES	0.07	0.37	0.07	0.08	0.07	0.11	0.08	0.09	0.09	0.12
1-HEPTENE	0.48	0.45	0.42	0.51	0.48	0.57	0.39	0.48	0.45	0.52
N-HEPTANE	0.31	0.29	0.27	0.33	0.30	0.30	0.26	0.30	0.30	0.32
1-OCTENE	0.16	0.15	0.13	0.13	0.14	0.14	0.12	0.15	0.15	0.19
N-OCTANE	0.09	0.06	0.07	0.08	0.08	0.04	0.07	0.09	0.09	0.11
METHANOL	0.60	0.60	0.60	0.60	0.65	0.60	0.60	0.60	0.60	0.60
ACETONE	0.58	0.51	0.48	0.50	0.55	0.61	0.55	0.52	0.50	0.61
I-PROPANOL	0.39	0.37	0.37	0.39	0.43	0.45	0.39	0.43	0.47	0.45
UNKNOWN LITE HYDRO-CARB LIQ (1)	22.59	22.33	21.98	21.72	26.54	26.78	25.03	24.64	24.26	25.93
UNKNOWN Hvy HYDRO-CARB LIQ (2)	18.68	16.72	16.85	17.10	19.95	19.23	22.95	17.69	17.28	18.52
SLURRY REACTOR-WAX	43.78	45.27	45.69	44.13	33.57	35.00	35.00	39.54	39.90	35.00

(1) Collected in Ambient and Chilled Condensers  
(2) Collected in Hot Condenser

Table B-2 (Cont'd)  
Composition of Hydrocarbon Products from  
First-Stage Slurry F-T Reactor  
(Run C1-255-7)

M.B. No. Days On-stream	7-55	7-56	7-57	7-58	7-59	7-60	7-61	7-62	7-63	7-64
METHANE	3.06	3.16	3.16	3.29	3.82	2.95	3.33	4.16	3.58	3.32
ETHENE	2.23	2.36	2.06	2.11	2.47	2.57	2.30	2.41	2.28	2.28
ETHANE	0.54	0.46	0.43	0.46	0.56	0.62	0.54	0.69	0.61	0.58
PROPANE	2.64	3.15	2.74	2.78	3.26	3.48	3.06	3.67	3.16	3.02
PROPENE	0.99	0.88	0.79	0.84	0.89	0.94	0.85	1.03	0.90	0.87
1-BUTANE	0.00	0.09	0.06	0.06	0.06	0.06	0.06	0.07	0.08	0.06
1-BUTENE+2-METHYLPROPENE	2.08	2.58	2.24	2.28	2.62	2.76	2.50	2.90	2.48	2.46
N-BUTANE	1.13	0.97	0.93	0.99	1.03	1.16	1.00	1.17	1.02	1.01
TRANS-2-BUTENE	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00
CIS-2-BUTENE	0.00	0.00	0.00	0.00	0.03	0.04	0.00	0.03	0.03	0.03
3-METHYL-1-BUTENE	0.18	0.22	0.18	0.16	0.16	0.18	0.15	0.17	0.15	0.16
1-PENTANE	0.09	0.12	0.10	0.09	0.08	0.33	0.23	0.28	0.26	0.32
1-PENTENE	1.47	1.74	1.63	1.64	1.79	2.00	1.69	1.92	1.66	1.66
2-METHYL-1-BUTENE	0.07	0.10	0.09	0.09	0.07	0.09	0.07	0.08	0.07	0.08
N-PENTANE	0.09	0.75	0.76	0.60	0.77	0.90	0.74	0.84	0.74	0.84
CYCLOPENTANE	0.00	0.00	0.00	0.00	0.02	0.04	0.02	0.02	0.02	0.03
HEXENES + ISO-HEXANES	0.11	0.20	0.16	0.15	0.13	0.25	0.11	0.13	0.11	0.24
2,3-DIMETHYLBUTANE	0.00	0.00	0.00	0.00	0.07	0.17	0.06	0.07	0.05	0.14
2-METHYLPENTANE	0.20	0.20	0.18	0.18	0.06	0.10	0.04	0.05	0.04	0.10
3-METHYLPENTANE	0.00	0.07	0.08	0.08	0.03	0.04	0.03	0.03	0.02	0.04
1-HEXENE	1.02	1.15	1.11	1.12	1.00	1.57	0.90	1.01	0.89	1.40
N-HEXANE	0.05	0.54	0.58	0.59	0.47	0.77	0.42	0.48	0.41	0.74
HEPTENES + ISO-HEPTANES	0.10	0.12	0.10	0.11	0.00	0.47	0.00	0.00	0.00	0.38
1-HEPTENE	0.50	0.53	0.53	0.55	0.36	1.21	0.28	0.33	0.29	1.01
N-HEPTANE	0.34	0.27	0.29	0.31	0.17	0.64	0.14	0.16	0.14	0.53
C8-OLEFINS + ISO-P	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.00	0.00	0.15
1-OCTENE	0.16	0.17	0.17	0.18	0.08	0.57	0.06	0.07	0.00	0.61
N-OCTANE	0.11	0.00	0.00	0.00	0.04	0.29	0.03	0.03	0.03	0.31
C9-OLEFINS + ISO-P	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05
ISO-NONENES	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.23
N-NONANE	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.12
UNKNOWN LITE HYDRO-CARB LIQ (1)	20.30	24.43	24.43	24.92	26.96	26.06	26.63	26.70	23.02	19.94
UNKNOWN HWY HYDRO-CARB LIQ (2)	18.29	18.31	17.64	16.35	23.61	23.06	26.61	23.62	22.02	20.85
SLURRY REACTOR-WAX	35.00	36.54	30.00	38.72	29.57	28.89	21.18	27.47	30.00	35.00
METHANOL	0.00	0.00	0.00	0.00	0.00	0.23	0.72	0.78	0.60	0.71
ACETONE	0.50	0.45	0.43	0.45	0.41	0.29	0.66	0.07	0.06	0.29
I-PROPANOL	0.45	0.40	0.38	0.39	0.41	0.23	0.14	0.16	0.10	0.17

(1) Collected in Ambient and Chilled Condensers  
(2) Collected in Hot Condenser

Table B-2 (Cont'd)  
Composition of Hydrocarbon Products from  
First-Stage Slurry F-I Reactor  
(Run CY-250-7)

M.B. No.	7-65	7-66	7-71	7-76	7-82	7-83	7-84	7-85
Days On-stream	74.4	75.4	80.5	88.8	92.8	93.8	94.8	95.8
METHANE	3.76	3.57	3.60	4.40	3.92	3.50	3.48	3.40
ETHENE	2.58	2.56	2.64	1.98	2.74	2.45	2.42	2.39
ETHANE	0.67	0.67	0.62	0.69	0.64	0.58	0.57	0.57
PROPENE	3.45	3.44	3.35	2.40	3.54	3.18	3.10	3.07
PROPANE	0.97	0.96	0.96	0.70	0.94	0.88	0.86	0.87
1-BUTANE	0.67	0.68	0.68	0.68	0.68	0.67	0.66	0.66
1-BUTENE + 2-METHYLPROPENE	2.78	2.78	2.58	1.96	2.80	2.58	2.51	2.49
N-BUTANE	1.69	1.68	1.63	0.88	1.84	0.98	0.98	0.99
CIS-2-BUTENE	0.64	0.64	0.64	0.68	0.68	0.68	0.68	0.68
3-METHYL-1-BUTENE	0.18	0.20	0.68	0.11	0.68	0.68	0.68	0.68
1-PENTANE	0.34	0.35	0.12	0.67	0.68	0.68	0.68	0.68
1-PENTENE	2.66	2.67	1.81	1.58	2.64	1.92	1.90	1.97
2-METHYL-1-BUTENE	0.69	0.10	0.10	0.68	0.68	0.67	0.67	0.67
N-PENTANE	0.69	0.68	0.68	0.75	0.62	0.79	0.79	0.84
CIS-2-PENTENE	0.68	0.67	0.68	0.68	0.68	0.68	0.68	0.68
CYCLOPENTANE	0.64	0.64	0.64	0.68	0.68	0.68	0.68	0.68
HEXENES + ISO-HEXANES	0.34	0.31	0.18	0.22	0.21	0.23	0.21	0.22
2,3-DIMETHYLBUTANE	0.19	0.13	0.63	0.20	0.63	0.68	0.68	0.68
2-METHYLPENTANE	0.11	0.11	0.13	0.12	0.18	0.15	0.18	0.22
3-METHYLPENTANE	0.64	0.65	0.68	0.68	0.67	0.69	0.69	0.11
1-HEXENE	1.63	1.65	1.24	1.51	1.39	1.45	1.45	1.63
N-HEXANE	0.69	0.78	0.59	0.78	0.68	0.62	0.64	0.72
HEPTENES + ISO-HEPTANES	0.69	0.42	0.68	0.85	0.65	0.20	0.25	0.28
1-HEPTENE	1.91	1.69	0.59	2.87	0.63	0.99	1.06	1.10
N-HEPTANE	0.98	0.54	0.29	1.98	0.28	0.45	0.49	0.52
C8-OLEFINS + ISO-P	0.28	0.10	0.68	0.10	0.69	0.69	0.12	0.14
1-OCTENE	0.90	0.62	0.18	0.57	0.19	0.54	0.68	0.69
N-OCTANE	0.37	0.31	0.69	0.29	0.67	0.24	0.29	0.30
C9-OLEFINS + ISO-P	0.16	0.14	0.68	0.19	0.68	0.68	0.68	0.68
ISO-NONENES	0.32	0.31	0.68	0.29	0.65	0.28	0.27	0.31
N-NONANE	0.18	0.15	0.68	0.15	0.68	0.68	0.68	0.13
METHANOL	0.70	0.65	0.82	0.94	0.68	0.87	0.88	1.00
ACETONE	0.42	0.37	0.21	0.19	0.31	0.31	0.31	0.17
1-PROPANOL	0.24	0.18	0.38	0.45	0.49	0.49	0.49	0.69
UNKNOWN (HC AROMATICS)	0.60	0.60	0.60	0.60	0.64	0.68	0.19	0.10
UNKNOWN LITE HYDRO-CARB LIQ (1)	15.39	16.48	18.82	16.33	15.78	18.37	16.16	15.11
UNKNOWN HYY HYDRO-CARB LIQ (2)	29.34	21.72	24.18	21.33	26.28	24.58	24.55	24.80
SLURRY REACTOR-WAX	35.60	35.00	35.00	35.00	35.00	35.00	35.00	35.00

(1) Collected in Ambient and Chilled Condensers  
(2) Collected in Hot Condenser

Table B 3  
First Stage Fischer-Tropsch Slurry Reactor  
Operating Conditions and Material Balances  
 (Based on Inter Reactor Sample)  
 (Run Cf-256-7)

(Nitrogen Free Basis)			
M.B. No.	7- 9	7- 10	7- 16
Days On-stream	12.4	13.4	20.4
First-Stage Conditions:			
Charge H <sub>2</sub> /CO (Molar)	0.659	0.665	0.674
Temperature, °C	258	256	258
Pressure, MPa	2.521	2.521	1.970
Feed Sup. Vel., cm/s	3.412	3.416	2.720
Space Vel., NL/gFe-hr	3.272	3.324	2.690
N <sub>2</sub> in Feed, Mol %	4.6	4.8	0.7
Conversions, Mol % :			
H <sub>2</sub>	78.26	76.31	74.27
CO	84.52	82.33	83.16
H <sub>2</sub> +CO	82.03	79.92	79.58
Yields, Wt % of Products :			
Hydrocarbons (1)	18.21	17.79	18.32
CO <sub>2</sub>	64.70	63.48	62.40
H <sub>2</sub> O (1)	0.91	0.94	1.31
H <sub>2</sub>	1.01	1.07	1.24
CO	15.16	16.71	16.73
Total	100	100	100
Bal Recovery, Wt % of Charge:	97.42	100.85	95.97
(CO <sub>2</sub> )(H <sub>2</sub> )/(CO)(H <sub>2</sub> O) :	26.96	24.82	20.18
gHC/Nm <sup>3</sup> (H <sub>2</sub> +CO) conv.:	170	176	172
(H/C) Atomic Ratio in HC :	2.14	2.14	2.14
Selectivities, Wt % of HC :			
Methane	3.32	3.42	3.60
Ethene	1.83	1.88	1.83
Ethane	0.68	0.67	0.71
Propene	2.80	2.83	2.92
Propane	0.75	0.78	0.76
Butenes	2.46	2.49	2.59
i-Butane	0.05	0.05	0.05
n-Butane	0.87	0.92	0.92
C <sub>5</sub> - C <sub>11</sub> (2)	12.91	13.15	8.35
Light Hydrocarbons (3)	2.89	7.75	11.17
Heavy Hydrocarbons (4)	10.65	7.67	15.62
Slurry Rx.-Wax	59.68	57.21	50.53
Total	100	100	100

(1) Including Oxygenates

(2) In Gas Phase Only

(3) Collected in Chilled and Ambient Condensers

(4) Collected in Hot Condenser

Table B-4  
Composition of Hydrocarbon Products from  
First-Stage Slurry F T Reactor  
(Based on Inter-Reactor Sample)  
(Run CT-256-6)

M.B. No.	7 9	7-10	7-16
Days On-stream	12.4	13.4	20.4
METHANE	3.32	3.42	3.60
ETHENE	1.83	1.88	1.83
ETHANE	0.68	0.67	0.71
PROPENE	2.80	2.83	2.92
PROPANE	0.75	0.78	0.76
I-BUTANE	0.05	0.05	0.05
1-BUTENE+2-METHYLPROPENE	2.43	2.46	2.53
N-BUTANE	0.87	0.92	0.92
TRANS-2-BUTENE	0.00	0.00	0.02
CIS-2-BUTENE	0.04	0.04	0.04
3-METHYL-1-BUTENE	0.12	0.12	0.12
I-PENTANE	0.36	0.36	0.15
1-PENTENE	2.01	2.04	2.11
2-METHYL-1-BUTENE	0.08	0.07	0.07
N-PENTANE	0.73	0.76	0.74
TRANS-2-PENTENE	0.45	0.48	0.00
CIS-2-PENTENE	0.02	0.03	0.02
2-METHYL-2-BUTENE	0.03	0.03	0.00
HEXENES + ISO-HEXANES	0.15	0.18	0.55
1-HEXENE	1.75	1.79	1.80
N-HEXANE	0.68	0.70	0.65
HEPTENES + ISO-HEPTANES	0.56	0.56	0.29
1-HEPTENE	1.44	1.46	1.34
1-TRANS-3-DIMETHYL-N5	0.18	0.21	0.00
N-HEPTANE	0.58	0.60	0.50
C8-OLEFINS + ISO-PARAFFINS	0.43	0.40	0.00
1-OCTENE	1.20	1.16	0.00
N-OCTANE	0.49	0.48	0.00
C9-OLEFINS + ISO-PARAFFINS	0.19	0.24	0.00
1-NONENE	0.82	0.78	0.00
N-NONANE	0.34	0.33	0.00
N-DECANE	0.31	0.39	0.00
ACETONE	0.09	0.08	0.07
I-PROPANOL	1.02	1.08	0.89
UNKNOWN LITE HYDRO-CARB LIQ (1)	2.89	7.75	11.17
UNKNOWN HVY HYDRO-CARB LIQ (2)	10.65	7.67	15.62
SLURRY REACTOR-WAX	59.68	57.21	50.53

(1) Collected in Ambient and Chilled Condensers

(2) Collected in Hot Condenser



Table B-5  
**Second-Stage Fixed-Bed ZSM-5 Reactor**  
**Operating Conditions and Material Balances**  
 (Run CY-256-7)

(Nitrogen-Free Basis)	7- 5	7- 6	7- 7	7- 8	7- 9	7- 10	7- 11
M.B. No.							
Days On-stream	8.4	9.4	10.4	11.4	12.4	13.4	15.4
<b>First-Stage Conditions:</b>							
Charge H <sub>2</sub> /CO (Molar)	0.671	0.668	0.668	0.663	0.669	0.665	0.667
Temperature, °C	257	256	256	256	258	256	258
Pressure, MPa	2.464	2.515	2.528	2.521	2.521	2.521	2.521
Feed Sup. Vel., cm/s	3.386	3.374	3.378	3.375	3.409	3.417	3.481
Space Vel., NL/gFe-hr	2.909	3.074	3.145	3.226	3.272	3.324	3.495
N <sub>2</sub> in Feed, Mol %	3.4	3.7	3.4	3.7	4.5	4.7	4.6
<b>Second-Stage Conditions:</b>							
Temp., Inlet, °C	289	293	293	294	302	306	344
Outlet, °C	312	313	313	314	312	316	366
Pressure, MPa	2.487	2.515	2.515	2.515	2.515	2.515	2.515
GHSV, 1/hr	4238	4241	4239	4227	4312	4474	4671
Days On-stream	1.6	2.5	3.5	4.5	5.5	6.5	8.5
<b>Conversions, Mol % :</b>							
H <sub>2</sub>	78.57	79.34	79.59	79.66	78.76	76.55	71.38
CO	85.92	89.26	86.35	86.25	84.75	85.52	74.81
H <sub>2</sub> +CO	82.97	85.29	83.84	83.82	82.34	82.74	72.26
<b>Yields, Wt % of Products :</b>							
Hydrocarbons	19.59	21.34	21.20	20.39	20.32	19.52	20.85
CO <sub>2</sub>	64.42	66.26	63.45	62.97	62.17	64.37	48.78
H <sub>2</sub> O	1.63	1.42	1.51	1.44	1.58	1.45	1.73
H <sub>2</sub>	0.99	0.93	0.93	0.94	0.99	0.97	1.44
CO	13.47	16.86	12.91	14.28	14.94	13.69	27.22
Total	100	100	100	100	100	100	100
<b>Bal Recovery, Wt % of Charge:</b>							
(CO <sub>2</sub> )(H <sub>2</sub> )/(CO)(H <sub>2</sub> O) :	17.70	24.03	17.31	16.46	14.88	16.00	8.56
gHC/Nm <sup>3</sup> (H <sub>2</sub> +CO) conv.:	184	200	200	190	189	187	204
(H/C) Atomic Ratio in HC :	2.11	2.04	2.02	2.03	2.03	2.04	2.00
<b>Selectivities, Wt % of HC :</b>							
Methane	2.99	3.07	2.81	2.86	2.89	3.22	2.16
Ethane	0.53	0.52	0.78	0.96	1.50	1.48	0.83
Ethane	0.61	0.67	0.59	0.60	0.60	0.60	0.44
Propane	1.00	1.07	1.18	1.19	1.29	1.57	1.42
Propane	1.35	1.36	1.14	1.00	0.94	1.13	1.05
Butenes	3.06	2.66	3.11	3.28	3.69	4.18	3.69
i-Butane	1.61	1.52	1.14	0.98	0.57	0.92	1.54
n-Butane	1.75	1.49	1.24	1.18	1.00	1.20	1.45
C <sub>5</sub> - C <sub>11</sub>	32.44	35.11	35.75	33.23	32.90	33.02	31.27
C <sub>12</sub> + (Excl. Rx.-Wax)	0.00	0.45	0.46	0.52	0.97	0.45	0.23
Slurry Rx.-Wax	54.00	52.08	51.00	54.13	53.40	52.14	55.09
Total	100	100	100	100	100	100	100
<b>i-C<sub>4</sub>/(C<sub>3</sub>+C<sub>4</sub>) Molar :</b>	0.35	0.36	0.23	0.19	0.18	0.14	0.27
<b>(C<sub>3</sub>/C<sub>3</sub>) Molar Ratio :</b>	1.21	1.21	0.92	0.86	0.89	0.89	0.73
<b>Alkylate, Wt % of HC :</b>	3.15	3.00	2.23	1.92	1.13	1.81	3.03
<b>Cat-Poly, Wt % of HC :</b>	2.58	2.26	3.20	3.53	4.43	4.86	3.62
<b>C<sub>5</sub> - C<sub>11</sub> PONA, Wt % :</b>							
Paraffins	42.60	--	--	--	--	--	38.83
Olefins	29.42	--	--	--	--	--	38.71
Naphthenes	6.76	--	--	--	--	--	6.24
Aromatics	21.22	--	--	--	--	--	24.22

Table B-6 (Cont'd)  
 Second-Stage Fixed-Bed ZSM-5 Reactor  
 Operating Conditions and Material Balances  
 (Run CT-256-7)

(Nitrogen-Free Basis)	7- 12	7- 13	7- 14	7- 15	7- 16	7- 19	7- 20
m.G. No.							
Days On-stream	16.4	17.4	18.4	19.4	20.4	23.4	24.4
<b>First-Stage Conditions:</b>							
Charge H <sub>2</sub> /CO (Molar)	0.670	0.667	0.669	0.676	0.674	0.661	0.667
Temperature, °C	258	256	257	257	258	257	256
Pressure, MPa	2.529	2.528	2.528	2.528	1.970	2.521	2.521
Feed Sup. Vel., cm/s	3.129	3.127	3.126	2.696	2.765	2.677	2.735
Space Vel., NL/gFe-hr	3.496	3.522	3.575	3.607	2.690	3.976	4.171
N <sub>2</sub> in Feed, Mol %	6.5	6.6	6.3	1.8	2.3	0.6	3.1
<b>Second-Stage Conditions:</b>							
Temp., Inlet, °C	335	348	347	348	346	366	365
Outlet, °C	353	379	372	379	383	409	407
Pressure, MPa	2.521	2.521	2.521	2.521	1.970	2.515	2.515
GHSV, 1/hr	4029	4329	4738	3790	2652	3903	4017
Days On-stream	9.6	10.6	11.6	12.6	13.6	16.6	17.6
<b>Conversions, Mol % :</b>							
H <sub>2</sub>	79.02	76.88	69.82	75.54	77.47	71.09	69.00
CO	82.99	78.02	64.18	74.04	81.96	67.00	65.09
H <sub>2</sub> +CO	81.40	77.57	66.44	74.64	84.33	68.67	67.16
<b>Yields, Wt % of Products :</b>							
Hydrocarbons	20.21	19.30	16.13	16.00	19.83	17.05	17.30
CO <sub>2</sub>	60.28	57.24	45.31	58.29	40.84	48.49	44.86
H <sub>2</sub> O	1.74	1.48	1.60	1.90	1.28	1.02	1.00
H <sub>2</sub>	1.00	1.06	1.44	1.14	1.09	1.32	1.50
CO	16.77	20.92	35.62	24.91	18.97	31.52	34.37
Total	100	100	100	100	100	100	100
<b>Bal Recovery, Wt % of Charge:</b>	96.71	100.15	96.14	99.29	95.97	99.64	94.62
(CO <sub>2</sub> )(H <sub>2</sub> )/(CO)(H <sub>2</sub> O) :	11.79	11.18	6.55	7.45	29.52	7.13	5.70
gHC/Nm <sup>3</sup> (H <sub>2</sub> +CO) conv.:	180	195	182	163	176	194	191
(H/C) Atomic Ratio in HC :	2.07	2.09	2.12	2.14	2.14	2.13	2.12
<b>Selectivities, Wt % of HC :</b>							
Methane	2.96	3.13	3.18	3.75	3.71	2.92	2.81
Ethane	0.43	0.46	0.64	0.54	0.59	0.61	0.70
Ethene	0.71	0.77	0.71	0.89	0.98	0.98	0.97
Propene	1.42	1.52	2.07	1.63	1.74	1.67	1.96
Propane	2.31	3.09	3.07	4.11	4.65	5.04	5.17
Butenes	2.31	2.22	3.40	2.58	2.15	1.77	2.30
i-Butane	3.29	4.30	4.64	5.83	6.12	5.45	5.79
n-Butane	2.10	2.67	3.03	3.06	3.63	3.53	3.92
C <sub>5</sub> - C <sub>11</sub>	30.84	31.76	33.76	36.29	29.29	28.80	27.90
C <sub>12+</sub> (Excl. Rx.-Wax)	0.25	0.13	0.23	0.33	0.46	0.20	0.18
Slurry Rx.-Wax	53.38	50.00	44.74	40.24	46.68	50.95	48.30
Total	100	100	100	100	100	100	100
<b>i-C<sub>4</sub>/(C<sub>3</sub>= + C<sub>4</sub>) Molar :</b>	0.76	0.98	0.73	1.19	1.32	1.32	1.14
(C <sub>3</sub> /C <sub>3</sub> =) Molar Ratio :	1.56	1.93	1.41	2.41	2.55	2.87	2.52
Alkylate, Wt % of HC :	6.25	7.98	8.84	9.11	8.52	7.59	9.35
Cat-Poly, Wt % of HC :	0.77	0.67	1.27	0.60	0.60	0.60	0.60
<b>C<sub>5</sub> - C<sub>11</sub> PDNA, Wt % :</b>							
Paraffins	--	--	43.89	43.96	--	--	48.81
Olefins	--	--	17.89	12.59	--	--	6.83
Naphthenes	--	--	8.76	9.48	--	--	18.29
Aromatics	--	--	30.26	33.98	--	--	42.07

Table B-6 (Cont'd)  
 Second-Stage Fixed-Bed ZSM-5 Reactor  
 Operating Conditions and Material Balances  
 (Run CY-258-7)

(Nitrogen-Free Basis)	7- 21	7- 22	7- 23	7- 24	7- 26	7- 27	7- 29
M.B. No.	7- 21	7- 22	7- 23	7- 24	7- 26	7- 27	7- 29
Days On-stream	25.4	26.4	27.4	28.4	31.4	32.4	34.4
First-Stage Conditions:							
Charge H <sub>2</sub> /CO (Molar)	0.667	0.626	0.686	0.688	0.669	0.671	0.689
Temperature, °C	257	258	256	257	258	257	257
Pressure, MPa	2.521	2.521	2.521	2.528	2.521	2.528	2.528
Feed Sp. Vel., cm/s	2.677	2.763	2.695	2.715	3.280	3.266	2.666
Space Vel., NL/gFe-hr	4.437	4.497	4.726	4.824	6.123	6.267	5.168
N <sub>2</sub> in Feed, Mol %	0.9	3.6	0.8	0.6	0.5	0.5	0.6
Second-Stage Conditions:							
Temp., Inlet, °C	369	375	374	374	370	373	376
Outlet, °C	411	415	408	408	398	398	406
Pressure, MPa	2.521	2.515	2.515	2.521	2.515	2.521	2.521
GHSV, 1/hr	3950	3800	4335	4419	6005	6271	4994
Days On-stream	18.5	19.5	20.5	21.5	24.5	25.5	27.5
Conversions, Mol % :							
H <sub>2</sub>	69.88	74.60	63.85	60.42	66.38	47.49	52.66
CO	66.89	67.23	63.33	61.62	47.55	44.47	46.88
H <sub>2</sub> +CO	68.09	70.66	63.64	61.13	48.68	46.68	48.62
Yields, Wt % of Products :							
Hydrocarbons	17.16	17.37	14.68	13.47	11.11	12.52	12.49
CO <sub>2</sub>	48.39	46.40	47.76	46.60	33.32	32.02	34.26
H <sub>2</sub> O	1.29	2.62	1.78	1.85	2.12	1.89	2.02
H <sub>2</sub>	1.39	1.48	1.67	1.90	2.34	2.34	2.17
CO	31.78	32.12	34.19	37.18	51.12	51.24	49.66
Total	100	100	100	100	100	100	100
Bal Recovery, Wt % of Charge:	99.48	96.22	102.12	98.35	97.81	103.32	104.64
(CO <sub>2</sub> )(H <sub>2</sub> )/(CO)(H <sub>2</sub> O) :	9.32	4.66	7.48	7.18	4.89	4.43	4.26
gHC/Nm <sup>3</sup> (H <sub>2</sub> +CO) conv.:	196	171	182	168	174	221	200
(H/C) Atomic Ratio in HC :	2.18	2.11	2.15	2.15	2.14	2.13	2.13
Selectivities, Wt % of HC :							
Methane	3.81	3.14	3.96	4.12	4.10	3.79	3.46
Ethene	0.76	0.78	0.81	0.92	1.24	1.16	1.28
Ethane	1.34	1.07	1.37	1.41	0.97	0.87	1.04
Propene	2.02	2.00	2.22	2.61	4.33	4.09	3.84
Propane	7.28	6.67	6.87	6.67	4.83	4.28	4.46
Butenes	2.27	2.21	2.34	2.98	5.32	4.98	4.71
i-Butane	7.71	5.92	7.14	7.15	5.48	4.76	4.81
n-Butane	5.21	3.97	4.82	4.89	3.87	3.39	3.64
C <sub>5</sub> - C <sub>11</sub>	28.26	35.59	35.62	38.59	34.62	38.43	32.33
C <sub>12</sub> + (Excl. Rx.-Wax)	0.10	0.25	0.37	0.82	0.33	0.16	0.36
Slurry Rx.-Wax	41.31	39.67	34.48	38.62	35.00	42.18	40.89
Total	100	100	100	100	100	100	100
i-C <sub>4</sub> /(C <sub>3</sub> + C <sub>4</sub> ) Molar :	1.68	1.17	1.30	1.88	0.48	0.44	0.47
(C <sub>3</sub> /C <sub>3</sub> ) Molar Ratio :	3.39	2.85	2.86	2.44	1.88	1.88	1.11
Alkylate, Wt % of HC :	9.45	9.27	10.84	12.12	10.70	9.35	9.48
Cat-Poly, Wt % of HC :	0.60	0.80	0.60	0.62	4.36	4.48	3.91
C <sub>5</sub> - C <sub>11</sub> PDNA, Wt % :							
Paraffins	44.29	--	--	--	37.81	34.85	38.23
Olefins	6.70	--	--	--	19.38	27.11	18.51
Naphthenes	18.28	--	--	--	18.68	8.61	9.59
Aromatics	30.66	--	--	--	32.75	32.24	33.67

Table B-6 (Cont'd)  
 Second-Stage Fixed-Bed ZSM-5 Reactor  
 Operating Conditions and Material Balances  
 (Run CT-266-7)

(Nitrogen-Free Basis)	7- 30	7- 31	7- 32	7- 33	7- 34	7- 35
M.B. No.						
Days On-stream	35.4	36.4	37.4	38.4	39.4	40.4
First-Stage Conditions:						
Charge H <sub>2</sub> /CO (Molar)	0.693	0.680	0.666	0.668	0.669	0.670
Temperature, °C	258	257	257	259	258	257
Pressure, MPa	2.521	2.542	2.535	2.535	2.535	2.521
Feed Sup. Vel., cm/s	2.660	3.297	3.266	3.262	3.255	3.298
Space Vel., NL/gFe-hr	6.157	6.700	6.640	6.709	6.702	6.833
N <sub>2</sub> in Feed, Mol %	0.6	0.5	0.5	0.5	0.5	0.5
Second-Stage Conditions:						
Temp., Inlet, °C	379	386	386	389	394	396
Outlet, °C	409	404	400	401	406	401
Pressure, MPa	2.516	2.536	2.528	2.542	2.528	2.516
GHSV, 1/hr	4604	6339	6017	5712	5842	5918
Days On-stream	28.6	29.5	30.6	31.6	32.6	33.6
Conversions, Mol % :						
H <sub>2</sub>	53.80	46.76	49.84	50.47	51.37	51.49
CO	54.26	48.68	48.91	49.38	49.38	48.19
H <sub>2</sub> +CO	54.88	43.65	49.28	52.22	50.18	49.61
Yields, Wt % of Products :						
Hydrocarbons	13.85	10.54	11.89	12.74	12.52	11.68
CO <sub>2</sub>	37.81	27.37	35.33	35.72	34.91	33.72
H <sub>2</sub> O	1.88	1.86	1.50	1.59	1.66	1.48
H <sub>2</sub>	2.24	2.47	2.38	1.98	2.28	2.31
C <sub>1</sub>	44.31	57.77	48.96	47.97	49.15	50.97
Total	100	100	100	100	100	100
Gas Recovery, Wt % of Charge:	98.24	98.18	99.51	100.02	98.19	98.91
(L <sub>2</sub> ) (H <sub>2</sub> ) / (CO) (H <sub>2</sub> O) :	8.00	3.58	6.31	5.29	6.72	6.16
gHC/Nm <sup>3</sup> (H <sub>2</sub> +CO) conv.:	184	188	188	192	191	177
(H/C) Atomic Ratio in HC :	2.14	2.14	2.09	2.06	2.09	2.06
Selectivities, Wt % of HC :						
Methane	3.74	3.88	3.38	3.12	3.38	3.55
Ethane	1.26	1.77	1.56	1.68	2.02	2.43
Ethene	1.16	0.94	0.66	0.68	0.67	0.72
Propene	3.83	3.78	4.88	4.92	5.71	6.41
Propane	4.74	6.83	3.18	2.58	2.52	2.37
Butenes	4.98	6.95	6.95	6.74	6.59	9.03
i-Butane	5.84	3.72	2.72	2.84	1.89	1.58
n-Butane	3.88	3.05	2.81	2.19	2.33	2.86
C <sub>5</sub> - C <sub>11</sub>	31.38	38.98	33.97	34.13	33.89	36.82
C <sub>12</sub> + (Excl. Rx.-Wax)	0.01	0.06	0.05	0.17	0.01	0.11
Slurry Rx.-Wax	40.00	40.00	40.00	41.84	39.88	35.00
Total	100	100	100	100	100	100
i-C <sub>4</sub> /(C <sub>3</sub> +C <sub>4</sub> ) Molar :	0.48	0.38	0.28	0.16	0.11	0.08
(C <sub>3</sub> /C <sub>3</sub> ) Molar Ratio :	1.18	1.38	0.82	0.58	0.42	0.35
Alkylate, Wt % of HC :	9.91	7.31	5.35	4.82	3.71	2.95
Cat-Poly, Wt % of HC :	3.95	7.07	9.12	9.69	12.48	13.99
C <sub>5</sub> - C <sub>11</sub> PDNA, Wt % :						
Paraffins	39.81	35.12	32.75	--	36.82	--
Olefins	18.54	27.35	27.44	--	36.35	--
Naphthenes	9.78	8.28	5.88	--	4.37	--
Aromatics	32.67	29.25	34.81	--	29.28	--







Table B-E (Cont'd)  
Composition of Hydrocarbon Products from  
Two-Stage Slurry FT/234-S Synthesis Conversion  
(WGS 23-258-7)

WGS No. Days On-stream	7- 30 35.4	7- 31 36.4	7- 32 37.4	7- 33 38.4	7- 34 39.4	7- 35 40.4
METHANE	3.74	3.88	3.38	3.12	3.38	3.55
ETHENE	1.25	1.77	1.56	1.88	2.02	2.43
ETHANE	1.16	0.94	0.66	0.68	0.67	0.72
PROPENE	3.83	3.72	4.88	4.92	5.71	6.47
PROPANE	4.74	5.03	5.18	2.58	2.52	2.37
1-BUTANE	5.04	3.70	2.72	2.84	1.89	1.58
1-BUTENE-2-METHYLPROPENE	2.97	4.17	4.15	4.07	5.12	5.45
N-BUTANE	3.86	3.85	2.81	2.19	2.33	2.86
TRANS-2-BUTENE	1.16	1.64	1.65	1.57	2.14	2.11
CIS-2-BUTENE	0.83	1.14	1.15	1.09	1.43	1.48
2-METHYL-1-BUTENE	0.09	0.13	0.14	0.12	0.18	0.18
1-PENTENE	3.58	2.55	2.88	1.29	1.54	1.88
1-PENTANE	0.12	0.17	0.18	0.15	0.24	0.21
2-METHYL-1-BUTENE	0.88	0.87	0.93	0.74	1.28	1.81
N-PENTANE	2.14	1.79	1.87	1.15	1.82	1.13
TRANS-2-PENTENE	0.42	0.61	0.66	0.48	0.84	0.57
CIS-2-PENTENE	0.21	0.31	0.31	0.24	0.42	0.33
2-METHYL-2-BUTENE	1.41	2.08	2.23	1.58	2.84	2.18
2,2-DIMETHYLBUTANE	0.04	0.08	0.05	0.05	0.05	0.05
1-CYCLOPENTANE	0.15	0.12	0.09	0.04	0.03	0.08
HEXENES + ISO-HEXANES	0.05	0.08	0.10	0.09	0.11	0.14
2,3-DIMETHYLBUTANE	0.18	0.16	0.11	0.08	0.03	0.05
2-METHYLPENTANE	1.17	0.95	0.78	0.31	0.55	0.23
3-METHYLPENTANE	0.67	0.53	0.41	0.13	0.29	0.11
HEXANES	0.85	0.84	0.94	0.88	1.41	0.88
N-HEXANE	1.28	1.28	1.42	0.48	1.39	0.51
2,2-DIMETHYLPENTANE	0.08	0.08	0.21	0.08	0.08	0.08
2,4-DIMETHYLPENTANE	0.01	0.08	0.08	0.08	0.08	0.08
METHYLCYCLOPENTANE	0.75	0.63	0.51	0.11	0.46	0.19
3,3-DIMETHYLPENTANE	0.08	0.08	0.08	0.08	0.08	0.08
CYCLOHEXANE	0.82	0.82	0.81	0.88	0.81	0.88
HEPTENES + ISO-HEPTANES	0.18	0.41	0.43	0.45	0.42	0.87
2-METHYLHEXANE	0.35	0.28	0.24	0.08	0.14	0.08
2,3-DIMETHYLHEXANE	0.13	0.09	0.07	0.08	0.04	0.08
3-METHYLHEXANE	0.48	0.27	0.26	0.08	0.15	0.08
1-CIS-3-DIMETHYLS	0.25	0.38	0.13	0.08	0.08	0.08
1-TRANS-3-DIMETHYLS	0.28	0.17	0.13	0.08	0.18	0.08
1-TRANS-2-DIMETHYLS	0.18	0.12	0.18	0.08	0.07	0.08
N-HEPTANE	0.73	0.82	1.11	0.17	1.16	0.24
C7-DLEFINS	0.88	1.83	1.87	0.88	1.48	0.88
METHYLCYCLOHEXANE	0.28	0.18	0.13	0.08	0.08	0.08
MONOMETHYL-ISO-C8-P	0.24	0.27	0.26	0.08	0.28	0.08
OTHER ISO-C8-P	0.08	0.07	0.08	0.08	0.08	0.08
C8-DLEFINS	1.84	1.43	1.72	0.88	2.14	0.38
C8-NAPHTHENES (NS-N8)	0.97	0.88	0.86	0.88	0.49	0.88
N-OCTANE	0.39	0.49	0.78	0.88	0.88	0.88
C9-DLEFINS + ISO-P	0.08	0.08	0.08	0.08	0.08	0.08
1-2-NONENE	0.08	0.08	0.08	0.04	0.08	0.21
MONOMETHYL-ISO-C9-P	0.15	0.11	0.13	0.08	0.12	0.08
OTHER ISO-C9-P	0.09	0.07	0.08	0.08	0.03	0.08
C9-DLEFINS	0.38	0.56	0.65	0.08	0.77	0.08
C9-NAPHTHENES (NS-N9)	0.29	0.25	0.21	0.08	0.12	0.08
N-NONANE	0.19	0.29	0.48	0.08	0.83	0.08
ISO-C10-P + O + NS + N8	0.27	0.39	0.62	0.08	0.44	0.08
N-DECANE	0.08	0.13	0.26	0.08	0.48	0.08
C11-P + O + NS + N8	0.08	0.11	0.14	0.08	0.13	0.08
BENZENE	0.34	0.45	0.48	0.15	0.51	0.18
TOLUENE	1.78	1.38	1.86	0.18	1.28	0.15
ETHYLBENZENE	0.83	0.58	0.64	0.08	0.41	0.08
P-XYLENE	0.68	0.41	0.49	0.08	0.48	0.08
M-XYLENE	1.89	1.47	1.77	0.08	1.28	0.08
O-XYLENE	0.87	0.68	0.58	0.08	0.43	0.08
N-PROPYLBENZENE	0.17	0.11	0.18	0.08	0.14	0.08
1-METHYL-3-ETHYL-BENZENE	1.17	1.82	1.27	0.08	1.88	0.08
1-METHYL-4-ETHYL-BENZENE	0.54	0.58	0.66	0.08	0.64	0.08
1,3,5-TRIMETHYL-BENZENE	0.08	0.03	0.03	0.08	0.02	0.08
1-METHYL-2-ETHYL-BENZENE	0.18	0.01	0.01	0.08	0.04	0.08
1,2,4-TRIMETHYL-BENZENE	1.18	1.88	1.39	0.08	1.88	0.08
1-METHYL-2-ISO-C3-BENZENE	0.01	0.01	0.01	0.08	0.01	0.08
1,3-DIETHYLBENZENE	0.25	0.25	0.37	0.08	0.32	0.08
1-METHYL-3-N-C3-BENZENE	0.02	0.08	0.08	0.08	0.08	0.08
N-C4-BENZENE	0.12	0.15	0.21	0.08	0.28	0.08
1,2,3-TRIMETHYL-BENZENE	0.02	0.08	0.08	0.08	0.08	0.08
C10-ALKYLBENZENES	0.49	0.48	0.77	0.08	0.51	0.08
1,2,4,6-TETRAMETHYLBENZENE	0.08	0.04	0.08	0.08	0.05	0.08
1,2,3,5-TETRAMETHYLBENZENE	0.01	0.04	0.06	0.08	0.05	0.08
1,2,3,4-TETRAMETHYLBENZENE	0.02	0.08	0.08	0.08	0.08	0.08
C11-ALKYLBENZENES	0.07	0.02	0.18	0.08	0.51	0.08
UNKNOWN (HC AROMATICS)	0.45	0.54	0.88	0.08	0.79	0.08
UNKNOWN LITE HYDRO-CARB LIQ (1)	0.08	0.08	0.08	28.21	0.08	27.31
UNKNOWN C12+	0.01	0.08	0.08	0.17	0.01	0.11
SLURRY REACTOR-WA7	48.88	48.88	48.88	41.84	39.88	35.88

(1) Collected in Chilled and Ambient Condensers