



STREAM NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
COMPONENT	VACUUM RESID.	RECYCLE	COKE R. FEED	COKE R. FEED	COKE R. FEED	COKE R. FEED	COKE R. FEED	COKE R. FEED	COKE R. FEED	COKE R. FEED	COKE R. FEED	COKE R. FEED	COKE R. FEED	COKE R. FEED	COKE R. FEED	COKE R. FEED	COKE R. FEED
BPSD (MMSCFD)	7.200	2.160	9.360	(13.8)	(17.2)	(4.15)	9.9	6.536	2.454	(0.70)	1.971	4.50	1.860	8.650	2.493	5.540	13.443
API (MIN)	7.3	11.7	8.3	(61.2)	(55.1)	(35.7)	84.6	84.6	38.6	(83.6)	38.6	23.0	23.0	23.0	11.7	23.0	23.0
LB/HR	106,978	31,066	138,084	120,132	104,277	16,299	6,480	69,342	25,740	6,468	23,839	6,000	24,819	115,700	33,138	79,630	179,657
COMPONENT	MCL/HR																
H2O			663.9	699.7	23.3	0.1	1.0		34.8								
H2			26.5	26.5	26.5												
H2S			17.9	19.4	7.8		1.5										
C1				157.8	160.7	157.5	0.3	2.9									
C2				11.4	11.4	11.4											
C3				59.4	61.0	59.1	0.3	3.6									
C4				16.5	19.1	16.2	0.3	2.6									
C5				34.9	41.4	34.3	0.6	6.5									
NC4				2.6	3.8	2.5	0.1	1.2									
NC5				17.5	26.7	16.6	0.9	9.2									
NC6				17.3	27.6	16.3	1.0	10.3									
NC7				5.0	11.7	4.4	0.6	6.7									
NC8				14.5	35.8	12.5	2.0	21.3									
NC9				12.9	33.8	10.8	2.0	21.0									
C6 GASOLINE 290°F				103.6	112.4	46.9	56.7	609.8									
COKE DIST-290-330°F									178.8	42.6	136.2						
COKE GAS OIL 590°F+												20.1	83.1	387	110.9		601.1
RECYCLE OIL																	
TOTAL MPH				1,480.5	1,493.0	456.1	65.0	696.6	178.8	77.4	136.2	20.1	83.1	387	110.9		601.1

NOTES:

- MM = 10⁶ BTU/HR.
- BPSD ARE AT GOF
- STANDARD GAS CONDITIONS ARE 14.7 PSIA & 60°F.
- PUMP GPM ARE AT NORMAL OPERATING CONDITIONS.
- NC = NORMALLY CLOSED.
- T.W. = TEMPERED WATER FROM PLANT 7
- MATERIAL BALANCE AND EQUIPMENT DUTIES SHOWN ARE AT 30% RECYCLE WITH MAXIMUM STEAM TO HEATER AND MAXIMUM COKE DRUM STEAMOUT STEAM TO FRACTIONATOR.

THE PROCESS CONDITIONS OF FLOW QUANTITIES, TEMPERATURES, PRESSURES, COMPOSITIONS AND INSPECTIONS, AND EQUIPMENT DUTIES SHOWN ON THIS FLOW DIAGRAM ARE FOR DESIGN PURPOSES ONLY, AND WHILE USEFUL AS GUIDES IN OPERATION, DO NOT REPRESENT EXACT OR GUARANTEED OPERATING CONDITIONS. GUARANTEES ARE SPECIFIED ONLY IN THE CONTRACT.

DELETED 13G-1 SOUV. WATER PUMP
 4/1/83 ISSUED FOR DESIGN/CONSTRUCTION
 12/1/83 ISSUED FOR APPROVAL

SCALE: DESIGNED: DRAWN:

CANADIAN BECHTEL LIMITED
 TORONTO MONTREAL EDMONTON VANCOUVER

GULF OIL CANADA LIMITED
 EDMONTON REFINERY EXPANSION

PROCESS FLOW DIAGRAM
 DELAYED COKE
 PLANT 13

ENGINEERING BY
 BECHTEL CORPORATION
 SAN FRANCISCO

BECHTEL 7488
 C-C #1895

13D-A-1 3

REVISED PER DS-13B-47