

STRATFORD ENGINEERING CORPORATION

JOB NO. J-1814

COMPANY

SHEET NO. 4 BY

SUBJECT ENTRAINMENT CARRYOVER TESTS AT MONTEBELLO, CAL

DATE

TEST NO	A	B	C	D	E	1	2	3	4	5	6	7	8
DATE (1947)	3/7	3/7	3/7	3/7	3/7	3/7	3/8	3/8	3/8	3/8	3/8	3/9	3/9
R.P.M. SHAFT SPEED	0	0	0	0	1000	1000	1000	1000	1000	1000	1000	1000	1000
CONTACTOR PRESS. #G	51	51	28	28	28	28	28	28	28	28	28	28	28
FLOW RATES - STD C.F.M.													
TOTAL FEED	416.6	416.6	416.6	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
TOP LABYRINTH	15.4	15.4	15.3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
MIDDLE BEARING	15.4	15.4	15.3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
BOTTOM LABYRINTH	30.9	30.9	31.0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SHAFT FEED	30.8	30.8	31.3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
BOTTOM SWEEP	106.3	106.3	108.3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
ANNULAR RING (BY DIFF)	217.6	217.6	215.4	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
TOTAL TO CENTER	168.0	168.0	170.9	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
TOTAL TO ANNULUS	217.6	217.6	215.4	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
TOTAL TO WHEEL	401.2	401.2	401.3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
FLOW RATES - ACTUAL C.F.M.													
TOTAL TO CENTER	37.6	37.6	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8
TOTAL TO ANNULUS	48.7	48.7	74.2	74.2	74.2	74.2	74.2	74.2	74.2	74.2	74.2	74.2	74.2
TOTAL TO WHEEL	89.7	89.7	138.0	138.0	138.0	138.0	138.0	138.0	138.0	138.0	138.0	138.0	138.0
VELOCITIES - SUPERFICIAL													
CENTER TUBE ^{3.15} FT/SEC	1.93	1.93	3.01	3.01	3.01	3.01	3.01	3.01	3.01	3.01	3.01	3.01	3.01
ANNULUS ^{4.13}	1.92	1.92	2.93	2.93	2.93	2.93	2.93	2.93	2.93	2.93	2.93	2.93	2.93
DILUTE PHASE ^{1.1}	1.36	1.36	2.09	2.09	2.09	2.09	2.09	2.09	2.09	2.09	2.09	2.09	2.09
IN SEPARATOR WHEEL ^{7.3}	2.05	2.05	3.15	3.15	3.15	3.15	3.15	3.15	3.15	3.15	3.15	3.15	3.15
TEST PERIOD - MINUTES	2	4	4	4	60	120	180	240	184	215	255	252	
TOTAL GAS RUN - CU.FT.	179.4	358.8	558.0	558.0	8280	16560	24840	33120	5392	39670	25190	34776	
BAG WEIGHT FINAL LBS-OZ	5-9½	6-3	9-11	9-42½	10-3½	11-15	14-13	16-14½	12-14	8-13	9-11	7-8	
BAG WEIGHT START	5-5	5-9½	6-3	6-4	8-1	8-10	8-13	8-9	7-12	6-11	7-9	6-8½	
DIFF. WEIGHT LBS-OZ	0-4½	0-9½	3-8	3-8½	2-2½	3-5	6-0	8-5½	5-2	2-2	2-2	0-15½	
CARRYOVER - GRAINS/CU.FT.	11.0	11.6	44.0	44.3	1.82	1.40	1.69	1.76	1.42	0.50	0.42	0.195	
FINES DENSITY - AERATED													
" " SETTLED							44.5	45.7		51.0	50.5	51.8	
" " PACKED						79.2	81.0	85.5	92.2	91.0	95.0	98.0	
RESIDUE DENSITY - AERATED													
" " SETTLED							137.0	137.5		140.0		139.0	
" " PACKED							138.0	146.0		145.5		144.0	
CATALYST INVENTORY AT START	425	424.7	424.1	424.1	424.0	421.85	418.54	412.54	404.20	399.07	397.95	395.82	
CUMULATIVE OVER - WT %					0.74	1.52	2.92	4.88	6.10	6.60	7.10	7.35	

N.G. Turbine Stopped

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End of Bag Filter sucked into effluent line. Shut Down and returned Fines. Run Void 1. Stack inserted in Effluent line and 1947

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SHEET NO. 5 BY

SUBJECT ENTRAINMENT CARRYOVER TESTS AT MONTEPELLO, CAL

DATE

TEST NO	9	10	11	12	13	
DATE (1947)	3/10	3/10	3/10	3/10	3/11	
R.P.M. SHAFT SPEED	1000	1000	1000	1000	1000	
CONTACTOR PRESS. *G	28	16	16	16	16	
FLOW RATES - STD. C.F.M.						
TOTAL FEED	416.6	✓	✓	✓	✓	
TOP LABYRINTH	15.3	✓	✓	✓	✓	
MIDDLE BEARING	15.3	✓	✓	✓	✓	
BOTTOM LABYRINTH	31.0	✓	✓	✓	✓	
SHAFT FEED	31.3	✓	✓	✓	✓	
BOTTOM SWEEP	108.3	✓	✓	✓	✓	
ANNULAR RING (BY DIFF.)	215.4	✓	✓	✓	✓	
TOTAL TO CENTER	170.9	✓	✓	✓	✓	
TOTAL TO ANNULUS	215.4	✓	✓	✓	✓	
TOTAL TO WHEEL	401.3	✓	✓	✓	✓	
FLOW RATES - ACTUAL C.F.M.						
TOTAL TO CENTER	58.8	81.5	81.5	81.5	81.5	
TOTAL TO ANNULUS	74.2	103.0	103.0	103.0	103.0	
TOTAL TO WHEEL	138.0	192.0	192.0	192.0	192.0	
VELOCITIES - SUPERFICIAL						
CENTER TUBE FT./SEC.	3.01	4.18	4.18	4.18	4.18	
ANNULUS	2.93	4.06	4.06	4.06	4.06	
DILUTE PHASE	2.09	2.90	2.90	2.90	2.90	
IN SEPARATOR WHEEL	3.15	4.40	4.40	4.40	4.40	
TEST PERIOD - MINUTES	120	181	240	360	490	
TOTAL GAS RUN - CU.FT.	16560	34750	46080	69120	94080	
BAG WEIGHT FINAL, LBS.-OZ.	6-13	8-1 $\frac{1}{2}$	9-8 $\frac{1}{4}$	9-15	8-7 $\frac{1}{2}$	
BAG WT. AT START	6-7	6-6	6-12 $\frac{1}{2}$	6-6 $\frac{1}{2}$	6-10	
DIFF. WEIGHT, LBS.-OZ.	0-6	1-11 $\frac{1}{2}$	2-11 $\frac{3}{4}$	3-8 $\frac{3}{4}$	1-13 $\frac{1}{2}$	
CARRYOVER, GRAINS/CU.FT.	0.158	0.347	0.415	0.359	0.137	
FINES DENSITY - AERATED		56.0	60.0	55.2	52.5	
" " SETTLED		59.5	61.8	58.0	53.8	
" " PACKED		105.0	106.2	104.0	103.5	
RESIDUE DENSITY - AERATED		140.5		141.0	142.0	
" " SETTLED		144.0		146.5	146.0	
" " PACKED		175.0		173.0	162.0	
CATALYST INVENTORY AT START	394.84	394.47	397.75	389.01	385.46	383.62
CUMULATIVE OVER - WT %	7.42	7.82	8.45	9.30	9.74	