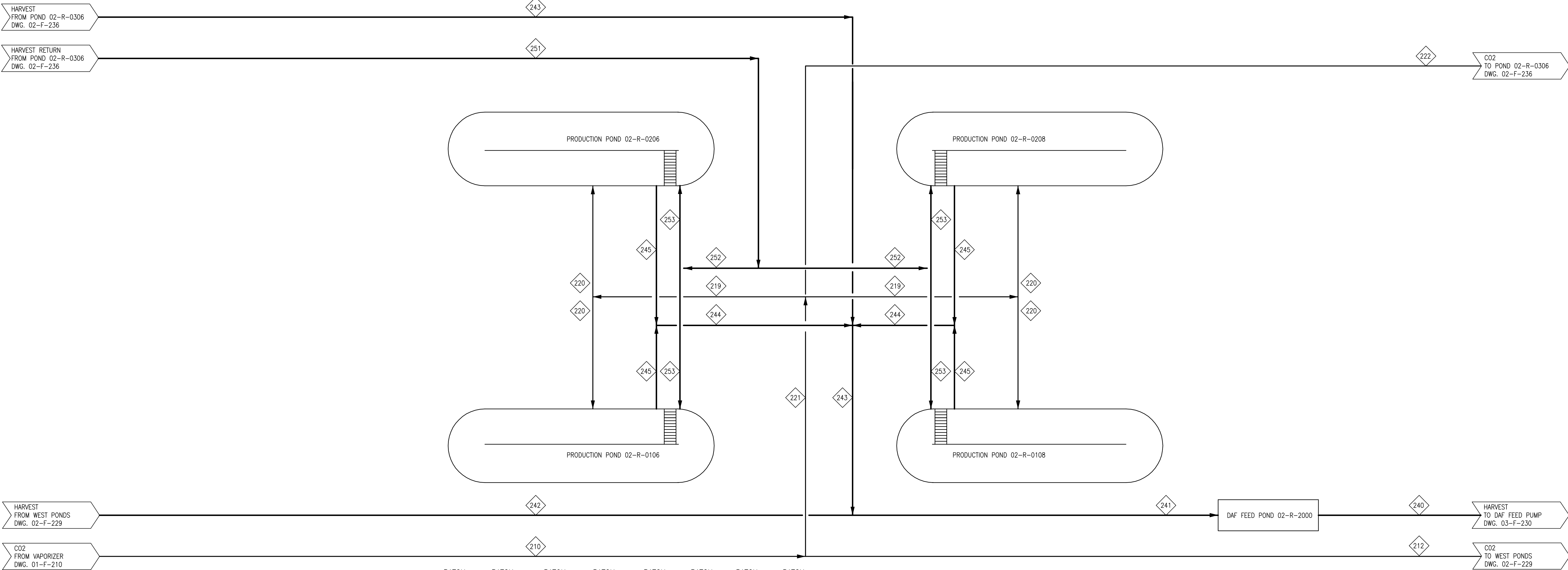


02-R-0106/02-R-0206/02-R-0108/02-R-0208
LOWER PRODUCTION PONDS
2.2 ACRES EA

02-R-2000
DAF FEED POND
1.3 ACRE FEET

NOTES
1. STREAM DATA IS FOR PEAK FLOW.



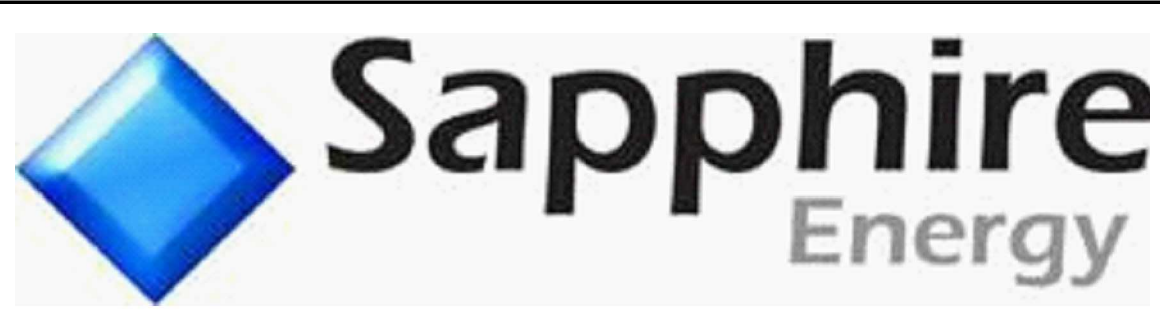
STREAM NO.		210	212	219	220	221	222	BATCH	BATCH	BATCH	BATCH	BATCH	BATCH	BATCH	BATCH	BATCH
DESCRIPTION		CO2	CO2	CO2	CO2	CO2	CO2	240 ALGAE HARVEST	241 ALGAE HARVEST	242 ALGAE HARVEST	243 ALGAE HARVEST	244 ALGAE HARVEST	245 ALGAE HARVEST	251 HARVEST RETURN	252 HARVEST RETURN	253 HARVEST RETURN
FLOW	LB/HR	22,448	12,000	1,026	513	10,448	8,396	2,502,000	3,127,500	2,502,000	1,251,000	625,500	625,500	1,251,000	625,500	625,500
FLOW	GPM							5,000	6,250	5,000	2,500	1,250	1,250	2,500	1,250	1,250
TEMPERATURE	°F	60	60	60	60	60	60	68	68	68	68	68	68	68	68	68
PRESSURE	PSIA	136.6	136.6	15.6	15.6	136.6	136.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6
VAPOR FRACTION		100	100	100	100	100	100	0	0	0	0	0	0	0	0	0
% SOLIDS IN AQ SOLNS		0	0	0	0	0	0	0.05	0.05	0.05	0.05	0.05	0.05	0.020	0.020	0.020
WATER	LB/HR	0	0	0	0	0	0	2,500,678	3,125,848	2,500,678	1,250,339	625,170	625,170	1,250,533	625,266	625,266
ALGAE OIL	LB/HR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ALGAE BIOMASS	LB/HR	0	0	0	0	0	0	1,179	1,474	1,179	589	295	295	203	102	102
ASH	LB/HR	0	0	0	0	0	0	143	178	143	71	36	36	47	24	24
CO2	LB/HR	22,448	12,000	1,026	513	10,448	8,396	0	0	0	0	0	0	0	0	0
UREA SOLUTION	LB/HR	0	0	0	0	0	0	0	0	0	0	0	0	193	96	96
PHOSPHORIC ACID	LB/HR	0	0	0	0	0	0	0	0	0	0	0	0	24	12	12
SULFURIC ACID	LB/HR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOLUENE	LB/HR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
METHANE	LB/HR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PROPANE	LB/HR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OXYGEN	LB/HR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NITROGEN	LB/HR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FLOCCULANT	LB/HR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
COAGULANT	LB/HR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



XXX DENOTES CHANGE IN STREAM TEMPERATURE ONLY. NO COMPOSITION CHANGE.
XXX DENOTES CHANGE IN STREAM PRESSURE ONLY. NO COMPOSITION CHANGE.

CONFIDENTIAL
CONTAINS PROPRIETARY INFORMATION OF SAPPHIRE ENERGY, INC. ACCESS LIMITED TO NEED TO KNOW. UNAUTHORIZED REPRODUCTION PROHIBITED.

ISSUED FOR CONSTRUCTION



Brown AND Caldwell
201 NORTH CMC DRIVE, SUITE 115
WALNUT CREEK, CA 94596

Scale: AS SHOWN
PMgr: B. ZINN
Appr: M. GERHARDT

Drawn: Z. BURKE
Check: M. GERHARDT

Engr: M. GERHARDT
Check: L. SLEZAK

SAPPHIRE ENERGY SAN DIEGO CALIFORNIA			
IABR Columbus, NM.			
PROCESS FLOW DIAGRAMS			
LOWER PRODUCTION PONDS 7			
Project No.: 139197	Drawing: 02-F-235	Rev: 0	