

APPENDIX C

IMPACTS EVALUATION

TABLE C-1

SCREEN MODELING INPUTS AND RESULTS
LIGON STATE 730-19H CTB
CONTINENTAL RESOURCES INC
REEVES COUNTY, TEXAS

	ENG1		ENG2		HT1		LP-FLARE		HP-FLARE		Total
Inputs											
NO _x Emission Rate	0.88 lb/hr NO _x	0.1110 g/sec	1.06542 lb/hr NO _x	0.1342 g/sec	0.15 lb/hr NO _x	0.019 g/sec	1.50 lb/hr NO _x	0.188 g/sec	21.31 lb/hr NO _x	2.686 g/sec	
NO _x /NO ₂ Conversion Factor	0.2		0.2		0.8		0.8		0.8		
NO ₂ Emission Rate	0.1762 lb/hr NO ₂	0.0222 g/sec	0.2131 lb/hr NO ₂	0.0268 g/sec	0.120 lb/hr NO ₂	0.015 g/sec	1.1967 lb/hr NO ₂	0.151 g/sec	17.0509 lb/hr NO ₂	2.148 g/sec	
Stack Height	12 ft	3.6576 m	12 ft	3.6576 m	20 ft	6.0960 m	50 ft	15.2400 m	50 ft	15.2400 m	
Stack Inside Diameter	0.67 ft	0.2042 m	0.67 ft	0.2042 m	0.67 ft	0.2042 m		0.0000 m		0.0000 m	
Heat Rating							10,839,516 BTU/hr		153,947,522 BTU/hr		
Stack Exit Velocity	73.60 ft/sec	22.4343 m/sec	200.96 ft/sec	61.2513 m/sec	60.00 ft/sec	18.2880 m/sec					
Stack Gas Exit Temp	942 °F	778.7056 °K	955 °F	785.9278 °K	400 °F	477.594 °K					
Ambient Air Temp	--	293 °K	--	293 °K	--	293 °K					
Receptor Height	0 ft	0 m	0 ft	0 m	0 ft	0 m	0 ft	0 m	0 ft	0 m	
Urban/Rural	Rural	Rural	Rural	Rural	Rural	Rural	Rural	Rural	Rural	Rural	
Downwash	None	None	None	None	None	None	None	None	None	None	
Modeled Concentration at 1 lb/hr		43.44 µg/m ³		19.29 µg/m ³		43.47 µg/m ³		2.12 µg/m ³		0.2 µg/m ³	
Screen Modeling Results (hourly)											
Maximum Modeled Concentration		7.65 µg/m ³		4.11 µg/m ³		5.21 µg/m ³		2.53 µg/m ³		3.41 µg/m ³	
Number of Identical Units		1		1		1		1		1	
Total Max. Modeled Concentration		7.65 µg/m ³		4.11 µg/m ³		5.21 µg/m ³		2.53 µg/m ³		3.41 µg/m ³	
Hourly Results for All Stacks Combined											
Total Modeled Concentration											22.9 µg/m ³
Background Concentration											70.0 µg/m ³
Total Concentration											92.9 µg/m ³
Is Total Concentration less than 188 µg/m³?											YES
Annual Results											
Conversion Factor (hourly to annual)		0.08		0.08		0.08		0.08		0.08	
Maximum Annual Concentration		0.61 µg/m ³		0.33 µg/m ³		0.42 µg/m ³		0.20 µg/m ³		0.27 µg/m ³	
Results for All Stacks Combined											
Total Modeled Concentration											1.8 µg/m ³
Background Concentration											20.0 µg/m ³
Total Concentration											21.8 µg/m ³
Is Total Concentration less than 100 µg/m³?											YES

TABLE C-2

SCREEN MODELING INPUTS AND RESULTS - H2S & SO2
LIGON STATE 730-19H CTB
CONTINENTAL RESOURCES INC
REEVES COUNTY, TEXAS

	MSS, TANKS, LOADING, & FUGITIVES		ENG1		ENG2		HT1		LP-FLARE		HP-FLARE	
Inputs												
H2S Emission Rate	0.01 lb/hr H2S	0.002 g/sec	-- lb/hr H2S	-- g/sec	-- lb/hr H2S	-- g/sec	-- lb/hr H2S	-- g/sec	-- lb/hr H2S	-- g/sec	0.01 lb/hr H2S	0.001 g/sec
SO ₂ Emission Rate	-- lb/hr SO ₂	-- g/sec	0.002 lb/hr SO ₂	0.0002 g/sec	0.003 lb/hr SO ₂	0.0004 g/sec	0.01 lb/hr SO ₂	0.001 g/sec	0.38 lb/hr SO ₂	0.05 g/sec	0.49 lb/hr SO ₂	0.06 g/sec
Release Height	25.00 ft	7.6200 m							--	--	--	--
Longer Side Length	300.00 ft	91.4400 m							--	--	--	--
Shorter Side Length	200.00 ft	60.9600 m							--	--	--	--
Stack Height	--	--	12 ft	4 m	12 ft	4 m	20 ft	6.096 m	30 ft	9 m	30 ft	9 m
Stack Inside Diameter	--	--	1 ft	0 m	1 ft	0 m	0.67 ft	0.2042 m	-- ft	-- m	-- ft	-- m
Heat Rating	--	--							10,839,516 Btu/hr		153,947,522 Btu/hr	
Stack Exit Velocity	--	--	74 ft/sec	22 m/sec	201 ft/sec	61 m/sec	60 ft/sec	18 m/sec	--	--	--	--
Stack Gas Exit Temp	--	--	942 °F	779 °K	955 °F	786 °K	400 °F	478 °K	--	--	--	--
Ambient Air Temp	--	293 °K	--	293 °K	--	293 °K	--	293 °K	--	293 °K	--	293 °K
Receptor Height	0 ft	0 m	0 ft	0 m	0 ft	0 m	0 ft	0 m	0 ft	0 m	0 ft	0 m
Urban/Rural	Rural	Rural	Rural	Rural	Rural	Rural	Rural	Rural	Rural	Rural	Rural	Rural
Downwash	None	None	None	None	None	None	None	None	None	None	None	None
Distance to Property Line	0 ft		0 ft		0 ft		0 ft		0 ft		0 ft	
Number of Identical Emission Points		1		1		1		1		1		1
Modeled Concentration at 1 lb/hr		125.5 µg/m ³		43.4 µg/m ³		19.3 µg/m ³		43.5 µg/m ³		2.1 µg/m ³		0.2 µg/m ³
Screen Modeling Results H2S												
Maximum 30-min Modeled Concentration at Property Line		1.70 µg/m ³		-- µg/m ³		-- µg/m ³		-- µg/m ³		-- µg/m ³		0.001 µg/m ³
Total 30-min Modeled Concentration		1.70 µg/m ³										
Is Total Concentration less than 162 µg/m³ (0.12 ppm)?		Yes										
Screen Modeling Results SO2												
Maximum 30-min Modeled Concentration		-- µg/m ³		0.08 µg/m ³		0.06 µg/m ³		0.249 µg/m ³		0.80 µg/m ³		0.10 µg/m ³
Background		50.00 µg/m ³										
Total 30-min Modeled Concentration		51.22 µg/m ³										
Is Total Concentration less than 196 µg/m³?		Yes										

05/30/25
13:15:46

*** SCREEN3 MODEL RUN ***
*** VERSION DATED 13043 ***

MSS, Tanks, Loading, Fugitives

SIMPLE TERRAIN INPUTS:

SOURCE TYPE	=	AREA
EMISSION RATE (G/(S-M**2))	=	0.226040E-04
SOURCE HEIGHT (M)	=	7.6200
LENGTH OF LARGER SIDE (M)	=	91.4400
LENGTH OF SMALLER SIDE (M)	=	60.9600
RECEPTOR HEIGHT (M)	=	0.0000
URBAN/RURAL OPTION	=	RURAL

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.

THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

MODEL ESTIMATES DIRECTION TO MAX CONCENTRATION

BUOY. FLUX = 0.000 M**4/S**3; MOM. FLUX = 0.000 M**4/S**2.

*** FULL METEOROLOGY ***

*** SCREEN AUTOMATED DISTANCES ***

*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	MAX DIR (DEG)
1.	27.68	1	1.0	1.0	320.0	7.62	6.
100.	119.3	3	1.0	1.0	320.0	7.62	22.
200.	123.8	5	1.0	1.0	10000.0	7.62	23.
300.	119.6	5	1.0	1.0	10000.0	7.62	3.
400.	125.3	6	1.0	1.0	10000.0	7.62	14.
500.	118.2	6	1.0	1.0	10000.0	7.62	0.
600.	106.0	6	1.0	1.0	10000.0	7.62	1.
700.	93.25	6	1.0	1.0	10000.0	7.62	0.
800.	82.09	6	1.0	1.0	10000.0	7.62	0.
900.	72.50	6	1.0	1.0	10000.0	7.62	0.
1000.	64.34	6	1.0	1.0	10000.0	7.62	0.
1100.	57.55	6	1.0	1.0	10000.0	7.62	0.
1200.	51.79	6	1.0	1.0	10000.0	7.62	0.
1300.	46.88	6	1.0	1.0	10000.0	7.62	0.
1400.	42.62	6	1.0	1.0	10000.0	7.62	0.
1500.	38.96	6	1.0	1.0	10000.0	7.62	0.

1600.	35.77	6	1.0	1.0	10000.0	7.62	0.
1700.	32.95	6	1.0	1.0	10000.0	7.62	0.
1800.	30.48	6	1.0	1.0	10000.0	7.62	0.
1900.	28.31	6	1.0	1.0	10000.0	7.62	0.
2000.	26.37	6	1.0	1.0	10000.0	7.62	0.
2100.	24.70	6	1.0	1.0	10000.0	7.62	0.
2200.	23.22	6	1.0	1.0	10000.0	7.62	0.
2300.	21.89	6	1.0	1.0	10000.0	7.62	0.
2400.	20.68	6	1.0	1.0	10000.0	7.62	0.
2500.	19.57	6	1.0	1.0	10000.0	7.62	0.
2600.	18.55	6	1.0	1.0	10000.0	7.62	0.
2700.	17.62	6	1.0	1.0	10000.0	7.62	0.
2800.	16.76	6	1.0	1.0	10000.0	7.62	0.
2900.	15.97	6	1.0	1.0	10000.0	7.62	0.
3000.	15.25	6	1.0	1.0	10000.0	7.62	0.
3500.	12.48	6	1.0	1.0	10000.0	7.62	0.
4000.	10.46	6	1.0	1.0	10000.0	7.62	0.
4500.	8.956	6	1.0	1.0	10000.0	7.62	0.
5000.	7.795	6	1.0	1.0	10000.0	7.62	0.
5500.	6.868	6	1.0	1.0	10000.0	7.62	0.
6000.	6.113	6	1.0	1.0	10000.0	7.62	0.
6500.	5.492	6	1.0	1.0	10000.0	7.62	0.
7000.	4.974	6	1.0	1.0	10000.0	7.62	0.
7500.	4.549	6	1.0	1.0	10000.0	7.62	0.
8000.	4.186	6	1.0	1.0	10000.0	7.62	0.
8500.	3.871	6	1.0	1.0	10000.0	7.62	0.
9000.	3.596	6	1.0	1.0	10000.0	7.62	0.
9500.	3.354	6	1.0	1.0	10000.0	7.62	0.
10000.	3.139	6	1.0	1.0	10000.0	7.62	0.
15000.	1.859	6	1.0	1.0	10000.0	7.62	0.
20000.	1.314	6	1.0	1.0	10000.0	7.62	0.
25000.	1.005	6	1.0	1.0	10000.0	7.62	0.
30000.	0.8073	6	1.0	1.0	10000.0	7.62	0.
40000.	0.5807	6	1.0	1.0	10000.0	7.62	0.
50000.	0.4501	6	1.0	1.0	10000.0	7.62	0.

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 1. M:
384. 125.5 6 1.0 1.0 10000.0 7.62 16.

*** SUMMARY OF SCREEN MODEL RESULTS ***

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
-----	-----	-----	-----
SIMPLE TERRAIN	125.5	384.	0.

05/19/25
13:42:18

*** SCREEN3 MODEL RUN ***
*** VERSION DATED 13043 ***

ENG-1 - NO2

SIMPLE TERRAIN INPUTS:

SOURCE TYPE = POINT
EMISSION RATE (G/S) = 0.126000
STACK HEIGHT (M) = 3.6576
STK INSIDE DIAM (M) = 0.2042
STK EXIT VELOCITY (M/S) = 22.6386
STK GAS EXIT TEMP (K) = 778.7056
AMBIENT AIR TEMP (K) = 293.1500
RECEPTOR HEIGHT (M) = 0.0000
URBAN/RURAL OPTION = RURAL
BUILDING HEIGHT (M) = 0.0000
MIN HORIZ BLDG DIM (M) = 0.0000
MAX HORIZ BLDG DIM (M) = 0.0000

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

BOUY. FLUX = 1.443 M**4/S**3; MOM. FLUX = 2.011 M**4/S**2.

*** FULL METEOROLOGY ***

*** SCREEN AUTOMATED DISTANCES ***

*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
1.	0.000	1	1.0	1.0	320.0	31.87	1.08	1.01	NO
100.	40.81	4	8.0	8.0	2560.0	7.18	8.26	4.76	NO
200.	34.50	4	4.0	4.0	1280.0	10.71	15.69	8.73	NO
300.	27.52	4	2.5	2.5	800.0	14.94	22.84	12.52	NO
400.	22.69	4	2.0	2.0	640.0	17.76	29.73	15.79	NO
500.	19.17	4	1.5	1.5	480.0	22.46	36.54	19.07	NO
600.	16.76	4	1.5	1.5	480.0	22.46	43.05	21.88	NO
700.	14.48	4	1.5	1.5	480.0	22.46	49.48	24.63	NO
800.	13.34	4	1.0	1.0	320.0	31.87	56.15	27.97	NO
900.	12.21	4	1.0	1.0	320.0	31.87	62.41	30.55	NO
1000.	11.11	4	1.0	1.0	320.0	31.87	68.60	33.09	NO
1100.	10.88	6	1.0	1.0	10000.0	31.53	37.81	16.82	NO

1200.	11.17	6	1.0	1.0	10000.0	31.53	40.80	17.57	NO
1300.	11.34	6	1.0	1.0	10000.0	31.53	43.77	18.30	NO
1400.	11.41	6	1.0	1.0	10000.0	31.53	46.73	19.01	NO
1500.	11.39	6	1.0	1.0	10000.0	31.53	49.67	19.71	NO
1600.	11.32	6	1.0	1.0	10000.0	31.53	52.60	20.40	NO
1700.	11.19	6	1.0	1.0	10000.0	31.53	55.51	21.08	NO
1800.	11.03	6	1.0	1.0	10000.0	31.53	58.41	21.74	NO
1900.	10.84	6	1.0	1.0	10000.0	31.53	61.30	22.40	NO
2000.	10.64	6	1.0	1.0	10000.0	31.53	64.17	23.05	NO
2100.	10.38	6	1.0	1.0	10000.0	31.53	67.03	23.60	NO
2200.	10.13	6	1.0	1.0	10000.0	31.53	69.88	24.13	NO
2300.	9.875	6	1.0	1.0	10000.0	31.53	72.72	24.66	NO
2400.	9.626	6	1.0	1.0	10000.0	31.53	75.54	25.18	NO
2500.	9.380	6	1.0	1.0	10000.0	31.53	78.35	25.69	NO
2600.	9.141	6	1.0	1.0	10000.0	31.53	81.16	26.19	NO
2700.	8.907	6	1.0	1.0	10000.0	31.53	83.95	26.69	NO
2800.	8.679	6	1.0	1.0	10000.0	31.53	86.73	27.17	NO
2900.	8.458	6	1.0	1.0	10000.0	31.53	89.50	27.65	NO
3000.	8.244	6	1.0	1.0	10000.0	31.53	92.27	28.13	NO
3500.	7.264	6	1.0	1.0	10000.0	31.53	105.95	30.05	NO
4000.	6.458	6	1.0	1.0	10000.0	31.53	119.44	31.85	NO
4500.	5.791	6	1.0	1.0	10000.0	31.53	132.74	33.53	NO
5000.	5.231	6	1.0	1.0	10000.0	31.53	145.89	35.12	NO
5500.	4.757	6	1.0	1.0	10000.0	31.53	158.89	36.63	NO
6000.	4.352	6	1.0	1.0	10000.0	31.53	171.76	38.08	NO
6500.	4.003	6	1.0	1.0	10000.0	31.53	184.51	39.46	NO
7000.	3.699	6	1.0	1.0	10000.0	31.53	197.15	40.79	NO
7500.	3.438	6	1.0	1.0	10000.0	31.53	209.69	41.93	NO
8000.	3.208	6	1.0	1.0	10000.0	31.53	222.13	43.02	NO
8500.	3.004	6	1.0	1.0	10000.0	31.53	234.47	44.08	NO
9000.	2.822	6	1.0	1.0	10000.0	31.53	246.74	45.11	NO
9500.	2.659	6	1.0	1.0	10000.0	31.53	258.92	46.10	NO
10000.	2.512	6	1.0	1.0	10000.0	31.53	271.02	47.06	NO
15000.	1.584	6	1.0	1.0	10000.0	31.53	388.51	55.46	NO
20000.	1.151	6	1.0	1.0	10000.0	31.53	501.01	60.82	NO
25000.	0.8959	6	1.0	1.0	10000.0	31.53	609.80	65.34	NO
30000.	0.7292	6	1.0	1.0	10000.0	31.53	715.63	69.30	NO
40000.	0.5324	6	1.0	1.0	10000.0	31.53	920.26	74.91	NO
50000.	0.4169	6	1.0	1.0	10000.0	31.53	1117.45	79.59	NO

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND					1. M:				
64.	43.44	3	8.0	8.0	2560.0	7.18	8.43	5.12	NO

DWASH= MEANS NO CALC MADE (CONC = 0.0)
 DWASH=NO MEANS NO BUILDING DOWNWASH USED
 DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED
 DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED
 DWASH=NA MEANS DOWNWASH NOT APPLICABLE, X<3*LB

*** SUMMARY OF SCREEN MODEL RESULTS ***

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
-----	-----	-----	-----
SIMPLE TERRAIN	43.44	64.	0.

05/19/25
13:52:42

*** SCREEN3 MODEL RUN ***
*** VERSION DATED 13043 ***

ENG-2 - NO2

SIMPLE TERRAIN INPUTS:

SOURCE TYPE = POINT
EMISSION RATE (G/S) = 0.126000
STACK HEIGHT (M) = 3.6576
STK INSIDE DIAM (M) = 0.2042
STK EXIT VELOCITY (M/S) = 61.2533
STK GAS EXIT TEMP (K) = 785.9278
AMBIENT AIR TEMP (K) = 293.1500
RECEPTOR HEIGHT (M) = 0.0000
URBAN/RURAL OPTION = RURAL
BUILDING HEIGHT (M) = 0.0000
MIN HORIZ BLDG DIM (M) = 0.0000
MAX HORIZ BLDG DIM (M) = 0.0000

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

BOUY. FLUX = 3.926 M**4/S**3; MOM. FLUX = 14.589 M**4/S**2.

*** FULL METEOROLOGY ***

*** SCREEN AUTOMATED DISTANCES ***

*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
1.	0.000	1	1.0	1.0	320.0	63.41	2.07	2.04	NO
100.	19.13	4	20.0	20.0	6400.0	6.65	8.24	4.72	NO
200.	16.26	4	8.0	8.0	2560.0	11.13	15.71	8.76	NO
300.	12.91	4	5.0	5.0	1600.0	15.61	22.87	12.57	NO
400.	10.69	4	4.5	4.5	1440.0	16.94	29.70	15.73	NO
500.	9.112	4	3.5	3.5	1120.0	20.73	36.47	18.94	NO
600.	7.939	4	3.0	3.0	960.0	23.58	43.09	21.96	NO
700.	7.037	4	2.5	2.5	800.0	27.56	49.66	24.99	NO
800.	6.306	4	2.5	2.5	800.0	27.56	55.99	27.64	NO
900.	5.757	4	2.0	2.0	640.0	33.54	62.47	30.68	NO
1000.	5.282	4	2.0	2.0	640.0	33.54	68.66	33.21	NO
1100.	4.838	4	2.0	2.0	640.0	33.54	74.80	35.18	NO

1200.	4.493	4	1.5	1.5	480.0	43.49	81.24	37.84	NO
1300.	4.575	6	1.0	1.0	10000.0	42.57	44.46	19.87	NO
1400.	4.805	6	1.0	1.0	10000.0	42.57	47.37	20.53	NO
1500.	4.998	6	1.0	1.0	10000.0	42.57	50.28	21.18	NO
1600.	5.157	6	1.0	1.0	10000.0	42.57	53.17	21.83	NO
1700.	5.285	6	1.0	1.0	10000.0	42.57	56.05	22.46	NO
1800.	5.384	6	1.0	1.0	10000.0	42.57	58.93	23.09	NO
1900.	5.459	6	1.0	1.0	10000.0	42.57	61.79	23.71	NO
2000.	5.511	6	1.0	1.0	10000.0	42.57	64.64	24.32	NO
2100.	5.508	6	1.0	1.0	10000.0	42.57	67.48	24.84	NO
2200.	5.492	6	1.0	1.0	10000.0	42.57	70.31	25.35	NO
2300.	5.467	6	1.0	1.0	10000.0	42.57	73.13	25.85	NO
2400.	5.433	6	1.0	1.0	10000.0	42.57	75.94	26.35	NO
2500.	5.393	6	1.0	1.0	10000.0	42.57	78.74	26.84	NO
2600.	5.346	6	1.0	1.0	10000.0	42.57	81.53	27.32	NO
2700.	5.295	6	1.0	1.0	10000.0	42.57	84.31	27.79	NO
2800.	5.240	6	1.0	1.0	10000.0	42.57	87.08	28.26	NO
2900.	5.181	6	1.0	1.0	10000.0	42.57	89.84	28.72	NO
3000.	5.120	6	1.0	1.0	10000.0	42.57	92.59	29.18	NO
3500.	4.748	6	1.0	1.0	10000.0	42.57	106.24	31.04	NO
4000.	4.398	6	1.0	1.0	10000.0	42.57	119.69	32.78	NO
4500.	4.078	6	1.0	1.0	10000.0	42.57	132.97	34.42	NO
5000.	3.788	6	1.0	1.0	10000.0	42.57	146.09	35.97	NO
5500.	3.528	6	1.0	1.0	10000.0	42.57	159.08	37.45	NO
6000.	3.294	6	1.0	1.0	10000.0	42.57	171.94	38.86	NO
6500.	3.084	6	1.0	1.0	10000.0	42.57	184.68	40.21	NO
7000.	2.894	6	1.0	1.0	10000.0	42.57	197.31	41.52	NO
7500.	2.723	6	1.0	1.0	10000.0	42.57	209.83	42.64	NO
8000.	2.569	6	1.0	1.0	10000.0	42.57	222.26	43.72	NO
8500.	2.430	6	1.0	1.0	10000.0	42.57	234.60	44.76	NO
9000.	2.303	6	1.0	1.0	10000.0	42.57	246.86	45.77	NO
9500.	2.188	6	1.0	1.0	10000.0	42.57	259.03	46.75	NO
10000.	2.082	6	1.0	1.0	10000.0	42.57	271.13	47.70	NO
15000.	1.381	6	1.0	1.0	10000.0	42.57	388.59	56.00	NO
20000.	1.026	6	1.0	1.0	10000.0	42.57	501.07	61.31	NO
25000.	0.8107	6	1.0	1.0	10000.0	42.57	609.85	65.80	NO
30000.	0.6670	6	1.0	1.0	10000.0	42.57	715.67	69.73	NO
40000.	0.4932	6	1.0	1.0	10000.0	42.57	920.29	75.31	NO
50000.	0.3895	6	1.0	1.0	10000.0	42.57	1117.48	79.97	NO

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 1. M:

88.	19.29	3	10.0	10.0	3200.0	9.63	11.28	6.84	NO
-----	-------	---	------	------	--------	------	-------	------	----

DWASH= MEANS NO CALC MADE (CONC = 0.0)

DWASH=NO MEANS NO BUILDING DOWNWASH USED

DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED

DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED

DWASH=NA MEANS DOWNWASH NOT APPLICABLE, X<3*LB

*** SUMMARY OF SCREEN MODEL RESULTS ***

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
-----	-----	-----	-----
SIMPLE TERRAIN	19.29	88.	0.

05/19/25
13:56:13

*** SCREEN3 MODEL RUN ***
*** VERSION DATED 13043 ***

HT-1 - NO2

SIMPLE TERRAIN INPUTS:

SOURCE TYPE = POINT
EMISSION RATE (G/S) = 0.126000
STACK HEIGHT (M) = 6.0960
STK INSIDE DIAM (M) = 0.2042
STK EXIT VELOCITY (M/S) = 18.2874
STK GAS EXIT TEMP (K) = 477.5944
AMBIENT AIR TEMP (K) = 293.1500
RECEPTOR HEIGHT (M) = 0.0000
URBAN/RURAL OPTION = RURAL
BUILDING HEIGHT (M) = 0.0000
MIN HORIZ BLDG DIM (M) = 0.0000
MAX HORIZ BLDG DIM (M) = 0.0000

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

BOUY. FLUX = 0.722 M**4/S**3; MOM. FLUX = 2.140 M**4/S**2.

*** FULL METEOROLOGY ***

*** SCREEN AUTOMATED DISTANCES ***

*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
1.	0.000	1	1.0	1.0	320.0	22.88	1.08	1.01	NO
100.	42.99	3	3.0	3.0	960.0	11.69	12.56	7.61	NO
200.	39.86	4	2.5	2.5	800.0	12.81	15.68	8.71	NO
300.	36.04	4	1.5	1.5	480.0	17.28	22.84	12.51	NO
400.	31.32	4	1.5	1.5	480.0	17.28	29.63	15.60	NO
500.	27.99	4	1.0	1.0	320.0	22.88	36.46	18.91	NO
600.	24.67	4	1.0	1.0	320.0	22.88	42.99	21.75	NO
700.	21.42	4	1.0	1.0	320.0	22.88	49.42	24.51	NO
800.	18.56	4	1.0	1.0	320.0	22.88	55.78	27.21	NO
900.	16.14	4	1.0	1.0	320.0	22.88	62.07	29.85	NO
1000.	14.12	4	1.0	1.0	320.0	22.88	68.30	32.45	NO
1100.	14.31	6	1.0	1.0	10000.0	28.23	37.50	16.11	NO

1200.	14.50	6	1.0	1.0	10000.0	28.23	40.51	16.89	NO
1300.	14.53	6	1.0	1.0	10000.0	28.23	43.50	17.64	NO
1400.	14.44	6	1.0	1.0	10000.0	28.23	46.48	18.38	NO
1500.	14.26	6	1.0	1.0	10000.0	28.23	49.44	19.11	NO
1600.	14.01	6	1.0	1.0	10000.0	28.23	52.38	19.82	NO
1700.	13.72	6	1.0	1.0	10000.0	28.23	55.30	20.51	NO
1800.	13.39	6	1.0	1.0	10000.0	28.23	58.21	21.20	NO
1900.	13.05	6	1.0	1.0	10000.0	28.23	61.11	21.87	NO
2000.	12.69	6	1.0	1.0	10000.0	28.23	63.99	22.53	NO
2100.	12.31	6	1.0	1.0	10000.0	28.23	66.86	23.09	NO
2200.	11.93	6	1.0	1.0	10000.0	28.23	69.71	23.64	NO
2300.	11.57	6	1.0	1.0	10000.0	28.23	72.55	24.18	NO
2400.	11.21	6	1.0	1.0	10000.0	28.23	75.38	24.71	NO
2500.	10.87	6	1.0	1.0	10000.0	28.23	78.20	25.23	NO
2600.	10.54	6	1.0	1.0	10000.0	28.23	81.01	25.74	NO
2700.	10.23	6	1.0	1.0	10000.0	28.23	83.81	26.24	NO
2800.	9.922	6	1.0	1.0	10000.0	28.23	86.60	26.74	NO
2900.	9.630	6	1.0	1.0	10000.0	28.23	89.37	27.23	NO
3000.	9.350	6	1.0	1.0	10000.0	28.23	92.14	27.71	NO
3500.	8.123	6	1.0	1.0	10000.0	28.23	105.84	29.66	NO
4000.	7.142	6	1.0	1.0	10000.0	28.23	119.34	31.48	NO
4500.	6.346	6	1.0	1.0	10000.0	28.23	132.65	33.18	NO
5000.	5.689	6	1.0	1.0	10000.0	28.23	145.81	34.79	NO
5500.	5.141	6	1.0	1.0	10000.0	28.23	158.82	36.31	NO
6000.	4.678	6	1.0	1.0	10000.0	28.23	171.69	37.77	NO
6500.	4.282	6	1.0	1.0	10000.0	28.23	184.45	39.16	NO
7000.	3.941	6	1.0	1.0	10000.0	28.23	197.09	40.50	NO
7500.	3.651	6	1.0	1.0	10000.0	28.23	209.63	41.65	NO
8000.	3.397	6	1.0	1.0	10000.0	28.23	222.07	42.75	NO
8500.	3.173	6	1.0	1.0	10000.0	28.23	234.42	43.82	NO
9000.	2.974	6	1.0	1.0	10000.0	28.23	246.69	44.85	NO
9500.	2.796	6	1.0	1.0	10000.0	28.23	258.87	45.84	NO
10000.	2.636	6	1.0	1.0	10000.0	28.23	270.98	46.81	NO
15000.	1.640	6	1.0	1.0	10000.0	28.23	388.48	55.25	NO
20000.	1.185	6	1.0	1.0	10000.0	28.23	500.99	60.63	NO
25000.	0.9190	6	1.0	1.0	10000.0	28.23	609.78	65.16	NO
30000.	0.7459	6	1.0	1.0	10000.0	28.23	715.62	69.13	NO
40000.	0.5429	6	1.0	1.0	10000.0	28.23	920.25	74.76	NO
50000.	0.4242	6	1.0	1.0	10000.0	28.23	1117.44	79.44	NO

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND	1. M:								
110.	43.47	3	3.0	3.0	960.0	11.69	13.82	8.34	NO

DWASH= MEANS NO CALC MADE (CONC = 0.0)
 DWASH=NO MEANS NO BUILDING DOWNWASH USED
 DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED
 DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED
 DWASH=NA MEANS DOWNWASH NOT APPLICABLE, X<3*LB

*** SUMMARY OF SCREEN MODEL RESULTS ***

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
-----	-----	-----	-----
SIMPLE TERRAIN	43.47	110.	0.

05/19/25
14:01:49

*** SCREEN3 MODEL RUN ***
*** VERSION DATED 13043 ***

LP-FLARE - NO2

SIMPLE TERRAIN INPUTS:

SOURCE TYPE = FLARE
EMISSION RATE (G/S) = 0.126000
FLARE STACK HEIGHT (M) = 15.2400
TOT HEAT RLS (CAL/S) = 758753.
RECEPTOR HEIGHT (M) = 0.0000
URBAN/RURAL OPTION = RURAL
EFF RELEASE HEIGHT (M) = 18.1889
BUILDING HEIGHT (M) = 0.0000
MIN HORIZ BLDG DIM (M) = 0.0000
MAX HORIZ BLDG DIM (M) = 0.0000

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

BUOY. FLUX = 12.580 M**4/S**3; MOM. FLUX = 7.671 M**4/S**2.

*** FULL METEOROLOGY ***

*** SCREEN AUTOMATED DISTANCES ***

*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
1.	0.000	1	1.0	1.0	320.0	155.44	1.55	1.50	NO
100.	0.1252E-01	2	5.0	5.2	1600.0	45.64	19.76	11.48	NO
200.	1.013	1	3.0	3.1	960.0	63.94	51.30	31.52	NO
300.	1.640	3	10.0	10.6	3200.0	31.67	34.51	20.69	NO
400.	1.673	3	8.0	8.5	2560.0	35.04	44.91	26.88	NO
500.	1.638	3	5.0	5.3	1600.0	45.15	55.31	33.34	NO
600.	1.545	3	4.5	4.8	1440.0	48.15	65.27	39.26	NO
700.	1.449	3	3.5	3.7	1120.0	56.70	75.30	45.47	NO
800.	1.355	3	3.0	3.2	960.0	63.12	85.12	51.48	NO
900.	1.335	4	5.0	5.5	1600.0	44.36	62.33	30.40	NO
1000.	1.312	4	5.0	5.5	1600.0	44.36	68.54	32.95	NO
1100.	1.255	4	5.0	5.5	1600.0	44.36	74.69	34.93	NO
1200.	1.205	4	4.5	4.9	1440.0	47.26	80.87	37.04	NO
1300.	1.155	4	4.0	4.4	1280.0	50.90	87.02	39.13	NO

1400.	1.111	4	4.0	4.4	1280.0	50.90	93.02	40.94	NO
1500.	1.067	4	3.5	3.8	1120.0	55.57	99.12	43.02	NO
1600.	1.031	4	3.5	3.8	1120.0	55.57	105.04	44.73	NO
1700.	0.9937	4	3.5	3.8	1120.0	55.57	110.92	46.41	NO
1800.	0.9566	4	3.0	3.3	960.0	61.80	116.95	48.49	NO
1900.	0.9285	4	3.0	3.3	960.0	61.80	122.76	50.10	NO
2000.	0.8999	4	3.0	3.3	960.0	61.80	128.55	51.68	NO
2100.	0.8719	5	1.0	1.2	10000.0	82.66	101.71	39.05	NO
2200.	0.8982	5	1.0	1.2	10000.0	82.66	105.95	39.87	NO
2300.	0.9213	5	1.0	1.2	10000.0	82.66	110.17	40.68	NO
2400.	0.9416	5	1.0	1.2	10000.0	82.66	114.38	41.48	NO
2500.	0.9591	5	1.0	1.2	10000.0	82.66	118.58	42.27	NO
2600.	0.9742	5	1.0	1.2	10000.0	82.66	122.76	43.05	NO
2700.	0.9869	5	1.0	1.2	10000.0	82.66	126.93	43.81	NO
2800.	0.9976	5	1.0	1.2	10000.0	82.66	131.08	44.57	NO
2900.	1.006	5	1.0	1.2	10000.0	82.66	135.23	45.32	NO
3000.	1.013	5	1.0	1.2	10000.0	82.66	139.36	46.06	NO
3500.	1.026	5	1.0	1.2	10000.0	82.66	159.82	49.65	NO
4000.	1.012	5	1.0	1.2	10000.0	82.66	180.00	53.07	NO
4500.	0.9763	5	1.0	1.2	10000.0	82.66	199.93	55.94	NO
5000.	0.9359	5	1.0	1.2	10000.0	82.66	219.63	58.67	NO
5500.	0.9266	6	1.0	1.4	10000.0	69.59	159.37	38.66	NO
6000.	0.9235	6	1.0	1.4	10000.0	69.59	172.21	40.03	NO
6500.	0.9154	6	1.0	1.4	10000.0	69.59	184.93	41.34	NO
7000.	0.9035	6	1.0	1.4	10000.0	69.59	197.54	42.61	NO
7500.	0.8849	6	1.0	1.4	10000.0	69.59	210.05	43.70	NO
8000.	0.8654	6	1.0	1.4	10000.0	69.59	222.47	44.76	NO
8500.	0.8455	6	1.0	1.4	10000.0	69.59	234.80	45.78	NO
9000.	0.8255	6	1.0	1.4	10000.0	69.59	247.04	46.77	NO
9500.	0.8057	6	1.0	1.4	10000.0	69.59	259.21	47.72	NO
10000.	0.7861	6	1.0	1.4	10000.0	69.59	271.30	48.65	NO
15000.	0.6172	6	1.0	1.4	10000.0	69.59	388.71	56.82	NO
20000.	0.4948	6	1.0	1.4	10000.0	69.59	501.16	62.06	NO
25000.	0.4115	6	1.0	1.4	10000.0	69.59	609.93	66.50	NO
30000.	0.3514	6	1.0	1.4	10000.0	69.59	715.74	70.39	NO
40000.	0.2714	6	1.0	1.4	10000.0	69.59	920.34	75.92	NO
50000.	0.2208	6	1.0	1.4	10000.0	69.59	1117.52	80.54	NO

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 1. M:
362. 1.698 3 8.0 8.5 2560.0 35.04 41.13 24.67 NO

DWASH= MEANS NO CALC MADE (CONC = 0.0)
DWASH=NO MEANS NO BUILDING DOWNWASH USED
DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED
DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED
DWASH=NA MEANS DOWNWASH NOT APPLICABLE, $X < 3 \times LB$

*** INVERSION BREAK-UP FUMIGATION CALC. ***

CONC (UG/M**3) = 2.118

DIST TO MAX (M) = 2389.85

 *** SUMMARY OF SCREEN MODEL RESULTS ***

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
-----	-----	-----	-----
SIMPLE TERRAIN	1.698	362.	0.
INV BREAKUP FUMI	2.118	2390.	--

05/29/25
14:22:17

*** SCREEN3 MODEL RUN ***
*** VERSION DATED 13043 ***

HP-FLARE - NO2

SIMPLE TERRAIN INPUTS:

SOURCE TYPE = FLARE
EMISSION RATE (G/S) = 0.126000
FLARE STACK HEIGHT (M) = 15.2400
TOT HEAT RLS (CAL/S) = 0.107761E+08
RECEPTOR HEIGHT (M) = 0.0000
URBAN/RURAL OPTION = RURAL
EFF RELEASE HEIGHT (M) = 25.7229
BUILDING HEIGHT (M) = 0.0000
MIN HORIZ BLDG DIM (M) = 0.0000
MAX HORIZ BLDG DIM (M) = 0.0000

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

BUOY. FLUX = 178.672 M**4/S**3; MOM. FLUX = 108.950 M**4/S**2.

*** FULL METEOROLOGY ***

*** SCREEN AUTOMATED DISTANCES ***

*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
1.	0.000	1	1.0	1.1	840.2	839.18	3.57	3.55	NO
100.	0.2007E-02	6	1.0	1.7	10000.0	142.55	33.24	33.07	NO
200.	0.3988E-02	5	1.0	1.4	10000.0	175.66	44.39	43.29	NO
300.	0.4459E-02	5	1.0	1.4	10000.0	175.66	46.05	43.71	NO
400.	0.5003E-02	5	1.0	1.4	10000.0	175.66	48.16	44.18	NO
500.	0.3333E-01	1	3.0	3.2	960.0	296.88	123.85	116.25	NO
600.	0.1028	1	3.0	3.2	960.0	296.88	144.64	164.20	NO
700.	0.1400	1	3.0	3.2	960.0	296.88	164.95	222.53	NO
800.	0.1411	1	1.5	1.6	569.0	568.03	220.33	315.06	NO
900.	0.1844	1	1.5	1.6	569.0	568.03	242.07	392.80	NO
1000.	0.1993	1	1.5	1.6	569.0	568.03	259.93	479.57	NO
1100.	0.1980	1	1.5	1.6	569.0	568.03	274.83	576.51	NO
1200.	0.1898	1	1.5	1.6	569.0	568.03	289.94	685.33	NO
1300.	0.1806	1	1.5	1.6	569.0	568.03	305.19	805.87	NO

1400.	0.1720	1	1.5	1.6	569.0	568.03	320.56	938.02	NO
1500.	0.1641	1	1.5	1.6	569.0	568.03	336.01	1081.75	NO
1600.	0.1568	1	1.5	1.6	569.0	568.03	351.51	1237.05	NO
1700.	0.1502	1	1.5	1.6	569.0	568.03	367.05	1403.92	NO
1800.	0.1441	1	1.5	1.6	569.0	568.03	382.61	1582.39	NO
1900.	0.1384	1	1.5	1.6	569.0	568.03	398.17	1772.51	NO
2000.	0.1332	1	1.5	1.6	569.0	568.03	413.73	1974.30	NO
2100.	0.1284	1	1.5	1.6	569.0	568.03	429.27	2187.83	NO
2200.	0.1239	1	1.5	1.6	569.0	568.03	444.80	2413.13	NO
2300.	0.1198	1	1.5	1.6	569.0	568.03	460.31	2650.26	NO
2400.	0.1159	4	15.0	17.3	4800.0	74.51	151.60	58.20	NO
2500.	0.1134	4	15.0	17.3	4800.0	74.51	157.25	59.66	NO
2600.	0.1108	4	15.0	17.3	4800.0	74.51	162.88	61.10	NO
2700.	0.1083	4	15.0	17.3	4800.0	74.51	168.49	62.52	NO
2800.	0.1057	4	15.0	17.3	4800.0	74.51	174.08	63.92	NO
2900.	0.1032	4	15.0	17.3	4800.0	74.51	179.65	65.31	NO
3000.	0.1030	2	1.5	1.6	569.0	568.03	437.57	396.35	NO
3500.	0.1026	2	1.5	1.6	569.0	568.03	493.77	458.98	NO
4000.	0.9722E-01	2	1.5	1.6	569.0	568.03	549.61	523.64	NO
4500.	0.9021E-01	2	1.5	1.6	569.0	568.03	605.00	589.91	NO
5000.	0.8526E-01	5	2.0	2.8	10000.0	144.73	221.49	65.26	NO
5500.	0.8968E-01	5	1.5	2.1	10000.0	156.70	241.34	69.41	NO
6000.	0.9409E-01	5	1.5	2.1	10000.0	156.70	260.47	71.64	NO
6500.	0.9774E-01	5	1.5	2.1	10000.0	156.70	279.46	73.80	NO
7000.	0.1015	5	1.0	1.4	10000.0	175.66	299.02	78.71	NO
7500.	0.1051	5	1.0	1.4	10000.0	175.66	317.68	80.69	NO
8000.	0.1082	5	1.0	1.4	10000.0	175.66	336.21	82.61	NO
8500.	0.1108	5	1.0	1.4	10000.0	175.66	354.62	84.50	NO
9000.	0.1130	5	1.0	1.4	10000.0	175.66	372.91	86.35	NO
9500.	0.1148	5	1.0	1.4	10000.0	175.66	391.09	88.16	NO
10000.	0.1162	5	1.0	1.4	10000.0	175.66	409.17	89.93	NO
15000.	0.1152	5	1.0	1.4	10000.0	175.66	584.96	104.72	NO
20000.	0.1063	5	1.0	1.4	10000.0	175.66	753.54	117.40	NO
25000.	0.9466E-01	5	1.0	1.4	10000.0	175.66	916.66	126.36	NO
30000.	0.8483E-01	5	1.0	1.4	10000.0	175.66	1075.40	134.33	NO
40000.	0.6967E-01	5	1.0	1.4	10000.0	175.66	1382.39	148.19	NO
50000.	0.6273E-01	6	1.0	1.7	10000.0	142.55	1117.92	85.94	NO

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 1. M:

1036.	0.2003	1	1.5	1.6	569.0	568.03	265.12	512.13	NO
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DWASH= MEANS NO CALC MADE (CONC = 0.0)

DWASH=NO MEANS NO BUILDING DOWNWASH USED

DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED

DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED

DWASH=NA MEANS DOWNWASH NOT APPLICABLE, X<3*LB

*** INVERSION BREAK-UP FUMIGATION CALC. ***

CONC (UG/M**3) = 0.2727

DIST TO MAX (M) = 10770.73

 *** SUMMARY OF SCREEN MODEL RESULTS ***

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
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SIMPLE TERRAIN	0.2003	1036.	0.
INV BREAKUP FUMI	0.2727	10771.	--