

**W.G. ROBERTS CONSULTING (2007) for
5369500 MANITOBA LTD.**

P.O. Box 1078
Viriden, Manitoba R0M 2C0

Phone 204-748-2158
Fax. 204-748-2862

July 27, 2009

Manitoba Science, Technology, Energy and Mines
Petroleum Branch
P.O. box 1390
Viriden, MB R0M 2C0

**Attention: Mr. Bruce Dunning – Senior Petroleum Inspector
Mr. Allan Gervin – Petroleum Inspector**

RE: Battery Permit Application for 5369500 MB Sinclair 12-32-8-28 WPM

Dear Sirs:

5369500 Manitoba Ltd. hereby submits two copies of the Battery Application for your approval, along with a cheque for the \$500. Application Fee. As you are aware this Application is for a Tank Battery only, whereby all wells on the NW ¼ of 32-8-28 WPM will be flowlined to a common storage tank located at 12-32-8-28. There will be no separating vessels or other typical battery equipment installed at this site. I have mailed letters to all landowners and occupants within 1.5 km of the battery, requesting their approval of this Application. Copies of these letters will be forwarded to your office as I receive signed copies back from landowners.

5369500 Manitoba Ltd. is requesting that the approval process proceed as quickly as possible. During the period of time required to obtain Battery Permit Approval we have requested temporary approval to produce the two existing wells into a common tank at 12-32-8-28 so as to minimize truck traffic next to the landowners yard site. This was not a specific requirement by the landowner but following discussions with the landowner he was very appreciative of our efforts to eliminate a tank installation at the 13-32-8-28 location.

If you require any other information to proceed with approval of this Application, please contact me at 204-748-2158.

Yours truly,



W.G. Roberts
for Rick Paull, President
5369500 Manitoba Ltd.

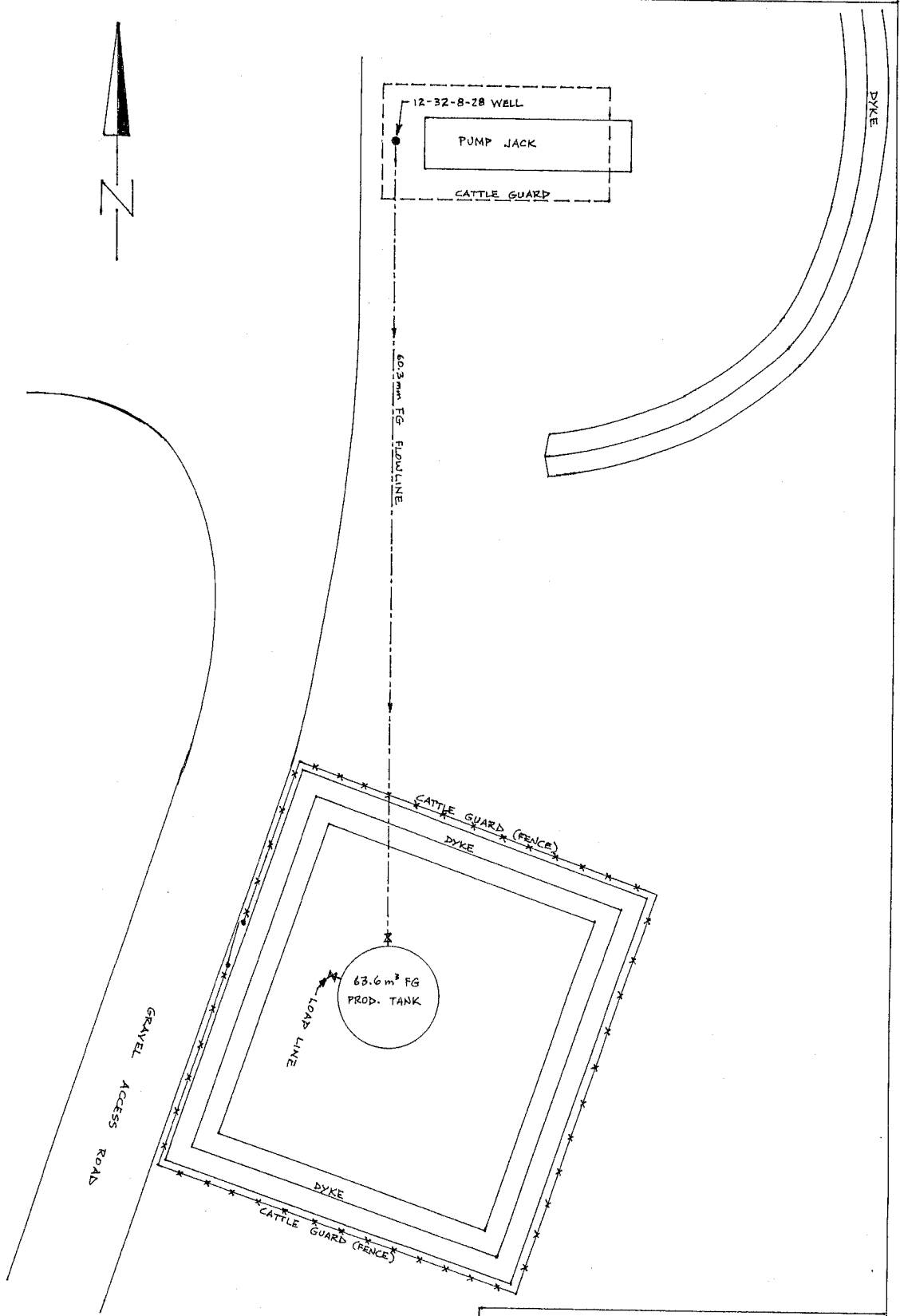
5369500 MANITOBA LTD.

5369500 MB Sinclair Tank Battery 12-32-8-28 WPM

Battery Permit Application

July 27, 2009

Submitted By: W.G. Roberts, for Rick Paull



5369500 MANITOBA LTD.

TANK BATTERY PLOT PLAN
SINCLAIR 12-32-8-28 WPM

SCALE: 1:125

DRAWN BY: W.G.R.

DATE: JULY 31, 2009

DWG. NO.: TB-RP1



EXTENDED GAS ANALYSIS

V0010161 - 1 <small>CONTAINER IDENTITY</small>			52134-2008-5806 <small>LABORATORY FILE NUMBER</small>
Baker Petrolite <small>METER ID</small>		OPERATOR	1 <small>PAGE</small>
100/12-32-008-28W1/00 <small>LOCATION (UWI)</small>	5369500 Manitoba Sinclair 12-32-8-28 <small>WELL NAME</small>		KB ELEV (m) GR ELEV (m)
Sinclair <small>FIELD OR AREA</small>	Bakken <small>POOL OR ZONE</small>	Baker Petrolite <small>SAMPLER</small>	

TEST TYPE AND NO. TEST RECOVERY

Annulus

	<small>POINT OF SAMPLE</small>	<small>SAMPLE POINT ID</small>
	PUMPING <input type="checkbox"/> FLOWING <input type="checkbox"/> GAS LIFT <input type="checkbox"/> SWAB <input type="checkbox"/>	
	WATER <input type="checkbox"/> m ³ /d OIL <input type="checkbox"/> m ³ /d GAS <input type="checkbox"/> m ³ /d	

<small>TEST INTERVAL or PERFS (meters)</small>		69	@ °C	20	@ 22 °C		
SEPARATOR	RESERVOIR	OTHER	CONTAINER WHEN SAMPLED	CONTAINER WHEN RECEIVED	SEPARATOR	OTHER	

13:00 Hrs Pressures, kPa (gauge) Temperatures, °C

2008 10 16 2008 10 22 2008 11 03 CM @ °C

DATE SAMPLED (Y/M/D) DATE RECEIVED (Y/M/D) DATE ANALYZED (Y/M/D) ANALYST AMT. AND TYPE CUSHION MUD RESISTIVITY

COMPONENT	MOLE FRACTION AIR FREE AS RECEIVED	MOLE FRACTION AIR FREE ACID GAS FREE	mL/m ³ AIR FREE AS RECEIVED
H ₂	0.0016	0.0018	
He	Trace	Trace	
N ₂	0.0519	0.0554	
CO ₂	0.0634	0.0000	
H ₂ S	Trace	0.0000	
C ₁	0.0709	0.0757	
C ₂	0.3360	0.3583	1,193.5
C ₃	0.3035	0.3240	1,114.9
iC ₄	0.0387	0.0413	168.9
C ₄	0.0830	0.0886	349.3
iC ₅	0.0170	0.0181	83.1
C ₅	0.0164	0.0176	79.3
C ₆	0.0096	0.0104	47.2
C ₇₊	0.0080	0.0088	46.1
Total	1.0000	1.0000	3,082.3

<small>CALCULATED GROSS HEATING VALUE</small>		<small>CALCULATED VAPOR PRESSURE</small>	
MJ/m ³ @ 15°C & 101.325 kPa (abs.)		kPa (abs.) @ 40 °C	
77.08	82.31	99.8	
<small>MOISTURE FREE</small>	<small>MOISTURE & ACID GAS FREE</small>	<small>PENTANES PLUS</small>	
<small>CALCULATED TOTAL SAMPLE PROPERTIES (AIR=1) @ 15°C & 101.325 kPa</small>			
<small>MOISTURE FREE AS SAMPLED</small>			
1.688	1.378	39.9	
<small>kg/m³</small>	<small>RELATIVE DENSITY</small>	<small>RELATIVE MOLECULAR MASS</small>	
<small>CALCULATED PSEUDOCRITICAL PROPERTIES</small>			
<small>AS SAMPLED</small>		<small>ACID GAS FREE</small>	
4525.2	330.1	4331.6	331.9
<small>kPa (abs)</small>	<small>K</small>	<small>kPa (abs)</small>	<small>K</small>
<small>pPc</small>	<small>pTc</small>	<small>pPc</small>	<small>pTc</small>
<small>C₇₊ PROPERTIES @ 15°C & 101.325 kPa</small>		<small>MOLE FRACTION</small>	<small>LOCATION</small>
726.4	98.4	0.0000020	Field
<small>kg/m³</small>	<small>MOLECULAR WEIGHT</small>	<small>METHOD</small>	
<small>DENSITY</small>		<small>HYDROGEN SULPHIDE</small>	

REMARKS:
 H2S determined in the field = 2 ppm
 Field sampling temperature was not available.

NOTE: THE GROSS HEATING VALUE HAS BEEN CALCULATED IN ACCORDANCE TO AGA REPORT #5 AND ALL PROPERTIES HAVE BEEN CALCULATED UTILIZING GPA 2145 - 03 PHYSICAL CONSTANTS AND BOILING POINT GROUPING.

5369500 MB Sinclair Tank Battery 12-32-8-28 WPM - Estimated Volumes of Gas Production

Calculations are based on G.O.R. of 6.0 (from nearby Tundra wells 15-19-7-28 (GOR = 6.0), and (3-1-8-29 (GOR = 5.0))

	<u>Based on Estimated Production of 14 m3 OPD</u>	<u>Based on Production of 30 m3 OPD</u>
Estimated Gas to Flare =	0.00 STD. m ³ /d	0.00 STD. m ³ /d
Estimated Gas to Treater Burner =	0.00 STD. m ³ /d	0.00 STD. m ³ /d
Calculated Gas to Tanks =	84.00 STD. m ³ /d	180.00 STD. m ³ /d
<hr/>		
Total Bty. Gas Production =	84.00 STD. m ³ /d	180.00 STD. m ³ /d

R.O.E. for 10 m3 OPD:

R.O.E. = 0.3048 (56.11 x 0.0002 x 84)^{0.6258} = 0.3

R.O.E. for 30 m3 OPD:

R.O.E. = 0.3048 (56.11 x 0.0002 x 180)^{0.6258} = 0.5

***** Based on the numbers above the Battery is a Class 1 facility. *****

** NOTE: Current production from 12-32-8-28 well is 4 m3 OPD, estimated initial production for 13-32-8-28 is 10 m3 OPD.

5369500 MB SINCLAIR TANK BATTERY 12-32-8-28 WPM

Landowners Within 1.5 km of Tank Battery

Robert P. Berry
Box 32
Cromer, MB R0M 0J0
(N ½ 33-8-28)

Smeltz Bros. Ltd.
Box 2608
Viriden, MB R0M 2C0
(W ½ & NE 6-9-28)

Manitoba Crown
Lands Branch, MB Conservation
308 – 25 Tupper St. N.
Portage La Prairie, MB R1N 3K1
(Section 29-8-28)

Darcy & Cynthia Isaac
General Delivery
Cromer, MB R0M 0J0
(S ½ 32 & NW 30-8-28)

Keith Pengelly & Glennis Boutilier
General Delivery
Cromer, MB R0M 0J0
(NE 32-8-28)

Murray Keith Pengelly
General Delivery
Cromer, MB R0M 0J0
(SW 4-9-28)

Lawrence Reimer
Box 2
Cromer, MB R0M 0J0
(W ½ & SE 31-8-28)

Leslie K. Reimer
Box 86
Cromer, MB R0M 0J0
(NE 31 & NW 32-8-28)

Leslie & Darlene Rowland
Box 71
Cromer, MB R0M 0J0
(SE 6-9-28)

George & Clarice Thiessen
Box 28
Cromer, MB R0M 0J0
(NE 30-8-28)

Venturelands Ltd.
Box 490
Melita, MB R0M 1L0

Florence L. Rookes
Box 1361
Viriden, MB R0M 2C0
(S ½ 33-8-28)

Wells to be Tied in to Tank Battery & Current Production Rates

There are currently two wells to be tied in to the storage tank at 12-32-8-28 W1:

12-32-8-28 W1 4.0 m³ OPD, 1.0 m³ WPD

13-32-8-28 W1 10.0 m³ OPD, 4.0 m³ WPD (Estimated – Well not on Production yet)

Oil from this location is hauled directly to sale point (currently the Tundra Terminal on Hwy 256 North of Cromer).

There is potential for two more wells to be drilled in the future at 11-32-8-28, and 14-32-8-28 W1.

Well Testing

Wells will be tested by difference. One well would be shut in to determine production volume for that well and wellhead samples would be obtained to determine percentage of oil and water.

5369500 MB Sinclair Tank Battery 12-32-8-28 WPM
Oil Tank Vent Details to Comply With
Petroleum Branch Regulations

Oil Tank Vent

All gas production will be vented directly from the production tank through a vent pipe located approx. 6 m above ground level. Air dispersion modeling results have been included for oil production rates of 10, 20, and 30 m³/day with emission rates shown below.

<u>Production Rate</u>	<u>Max. 1 Hr. Concentration</u>
10 m ³ OPD	0.005687 ug/m ³
20 m ³ OPD	0.01119 ug/m ³
30 m ³ OPD	0.01651 ug/m ³

To meet guidelines for H₂S emissions the maximum allowable 1 hr. concentration must not exceed 15 ug/m³. All production rates shown above fall well within acceptable limits.

The new 63.6 m³ fiberglass production tank is installed within a dyke. An external tank gauge is installed on the tank.

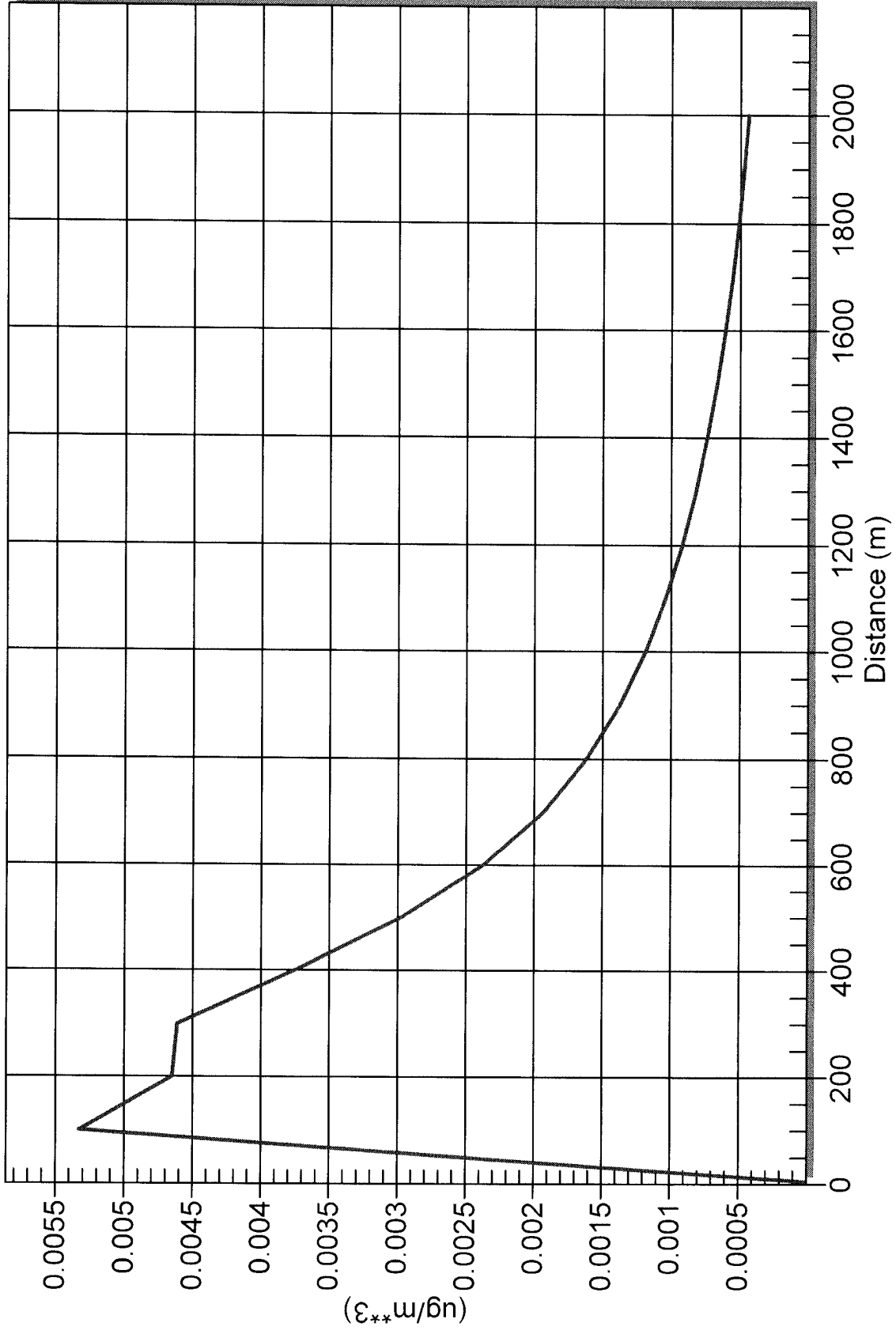
Screen 3 Input Data:

Company: 5369500 Manitoba Ltd.

	5369500 MB Sinclair	5369500 MB Sinclair	5369500 MB Sinclair
	12-32-8-28 W1 Tank Bty.	12-32-8-28 W1 Tank Bty.	12-32-8-28 W1 Tank Bty.
Heater Treater Data			
Gas to treater (m ³ /s)			
Stack Height (m)			
Stack Diameter (m)			
Stack gas exit velocity (m/s)			
Stack gas exit temp. (K)			
SO ₂ emission rate (g/s)			
Building/Structure height (m)			
Building/Structure length (m)			
Building/Structure width (m)			
Ambient Temperature (K)			
	Based on Oil	Based on Future Oil	Based on Future Oil
	Production @ 10 m ³ OPD	Production @ 20 m ³ OPD	Production @ 30 m ³ OPD
Tank Vent Data			
Gas to Tanks (m ³ /s)	0.0006944	0.0013889	0.0020833
Vent Height (m)	7.2	7.2	7.2
Vent Diameter (m)	0.0762	0.0762	0.0762
Vent Exit Velocity (m/s)	0.1523	0.3046	0.4568
H ₂ S Emission Rate (g/s)	0.000002	0.000004	0.000006
Tank Height (m)	6.20	6.20	6.20
Tank Diameter (m)	3.66	3.66	3.66
Vent Exit Temp. (K)	293	293	293
Ambient Temp. (K)	293	293	293
Flare Data			
Gas to Flare (m ³ /s)			
Flare height (m)			
Flare Diameter (m)			
Flare Gas Exit Velocity (m/s)			
Flare Gas Exit Temp. (K)			
SO ₂ Emission Rate (g/s)			
Ambient Temp. (K)			
H ₂ S Emis. Rt. (g/s) (fire out)			

5369500 MB Sinclair Tank Bty. 12-32-8-28 W1 (Venting @ 10 m3 OPD)

Terrain Height = 0.00 m.



NO	900.	0.1376E-02	6	1.0	1.0	10000.0	7.03	30.78	12.98
NO	1000.	0.1186E-02	6	1.0	1.0	10000.0	7.03	33.88	13.95
NO	1100.	0.1039E-02	6	1.0	1.0	10000.0	7.03	36.96	14.82
NO	1200.	0.9187E-03	6	1.0	1.0	10000.0	7.03	40.01	15.66
NO	1300.	0.8198E-03	6	1.0	1.0	10000.0	7.03	43.04	16.47
NO	1400.	0.7372E-03	6	1.0	1.0	10000.0	7.03	46.05	17.26
NO	1500.	0.6674E-03	6	1.0	1.0	10000.0	7.03	49.03	18.03
NO	1600.	0.6078E-03	6	1.0	1.0	10000.0	7.03	51.99	18.78
NO	1700.	0.5565E-03	6	1.0	1.0	10000.0	7.03	54.94	19.52
NO	1800.	0.5119E-03	6	1.0	1.0	10000.0	7.03	57.87	20.23
NO	1900.	0.4729E-03	6	1.0	1.0	10000.0	7.03	60.78	20.94
NO	2000.	0.4385E-03	6	1.0	1.0	10000.0	7.03	63.68	21.63

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 5. M:

NO	64.	0.5687E-02	3	1.0	1.0	320.0	7.03	8.37	5.02
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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

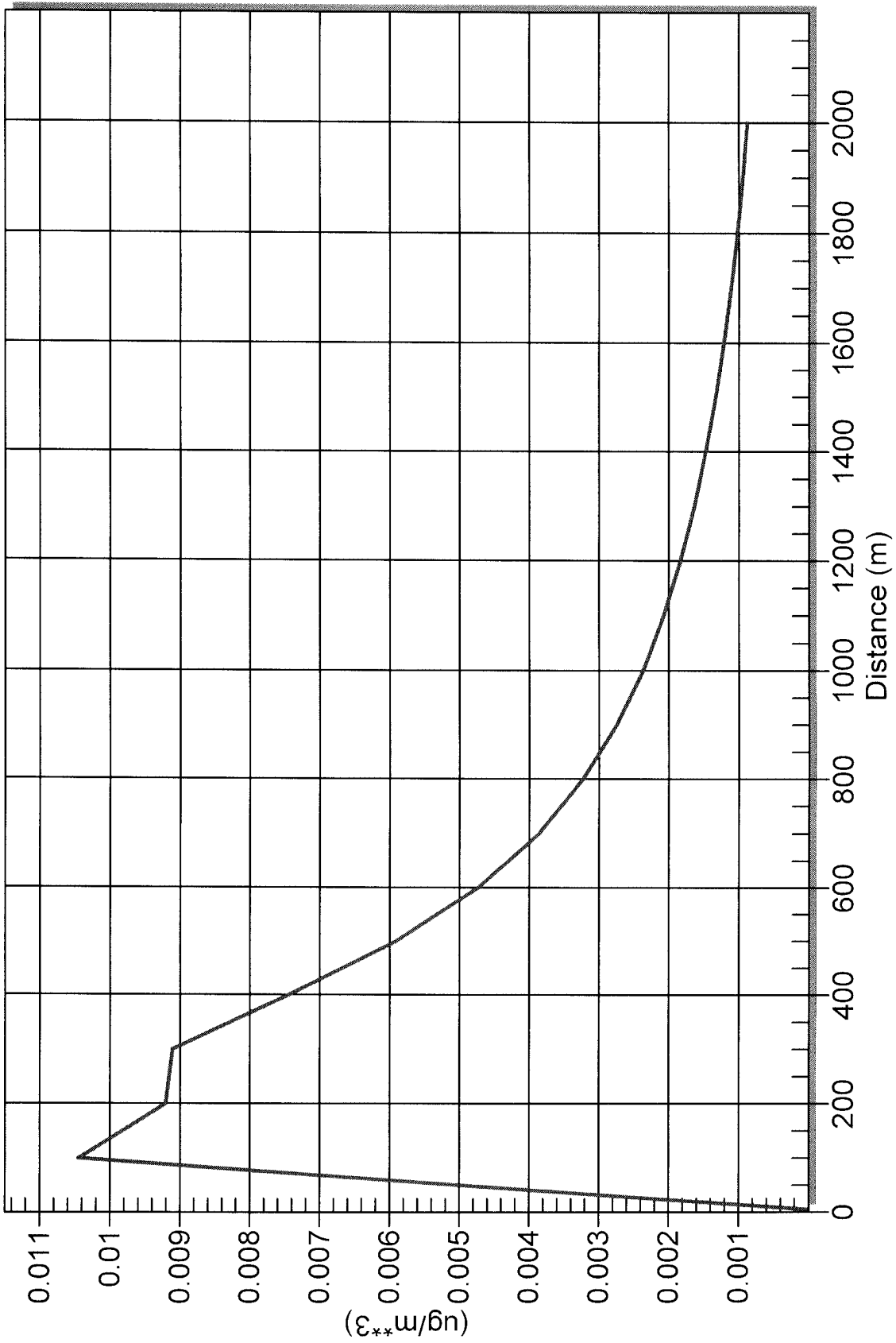
 *** SUMMARY OF SCREEN MODEL RESULTS ***

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
SIMPLE TERRAIN	0.5687E-02	64.	0.

 ** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **

5369500 MB Sinclair Tank Bty. 12-32-8-28 W1 (Venting @ 20 m3 OPD)

Terrain Height = 0.00 m.



12/12/08

15:07:41

*** SCREEN3 MODEL RUN ***
*** VERSION DATED 96043 ***

C:\Documents and Settings\Bill Roberts\My Documents\KW1222B.scr

SIMPLE TERRAIN INPUTS:

SOURCE TYPE	=	POINT
EMISSION RATE (G/S)	=	0.400000E-05
STACK HEIGHT (M)	=	7.2000
STK INSIDE DIAM (M)	=	0.0762
STK EXIT VELOCITY (M/S)	=	0.3046
STK GAS EXIT TEMP (K)	=	293.0000
AMBIENT AIR TEMP (K)	=	293.0000
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.

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)	SIGMA Y (M)	SIGMA Z (M)	
NO	5.	0.6905E-16	1	1.0	1.0	320.0	7.09	1.79	0.82
NO	100.	0.1045E-01	4	1.0	1.0	320.0	7.09	8.20	4.65
NO	200.	0.9207E-02	5	1.0	1.0	10000.0	7.09	11.63	6.24
NO	300.	0.9111E-02	6	1.0	1.0	10000.0	7.09	11.23	5.62
NO	400.	0.7444E-02	6	1.0	1.0	10000.0	7.09	14.64	7.05
NO	500.	0.5911E-02	6	1.0	1.0	10000.0	7.09	17.97	8.40
NO	600.	0.4736E-02	6	1.0	1.0	10000.0	7.09	21.24	9.69
NO	700.	0.3860E-02	6	1.0	1.0	10000.0	7.09	24.46	10.93
NO	800.	0.3229E-02	6	1.0	1.0	10000.0	7.09	27.63	11.98

NO	900.	0.2746E-02	6	1.0	1.0	10000.0	7.09	30.78	12.98
NO	1000.	0.2367E-02	6	1.0	1.0	10000.0	7.09	33.88	13.95
NO	1100.	0.2073E-02	6	1.0	1.0	10000.0	7.09	36.96	14.82
NO	1200.	0.1834E-02	6	1.0	1.0	10000.0	7.09	40.01	15.66
NO	1300.	0.1637E-02	6	1.0	1.0	10000.0	7.09	43.04	16.47
NO	1400.	0.1472E-02	6	1.0	1.0	10000.0	7.09	46.05	17.26
NO	1500.	0.1333E-02	6	1.0	1.0	10000.0	7.09	49.03	18.03
NO	1600.	0.1214E-02	6	1.0	1.0	10000.0	7.09	51.99	18.78
NO	1700.	0.1112E-02	6	1.0	1.0	10000.0	7.09	54.94	19.52
NO	1800.	0.1023E-02	6	1.0	1.0	10000.0	7.09	57.87	20.23
NO	1900.	0.9448E-03	6	1.0	1.0	10000.0	7.09	60.78	20.94
NO	2000.	0.8762E-03	6	1.0	1.0	10000.0	7.09	63.68	21.63

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 5. M:
 NO 65. 0.1119E-01 3 1.0 1.0 320.0 7.09 8.49 5.09

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

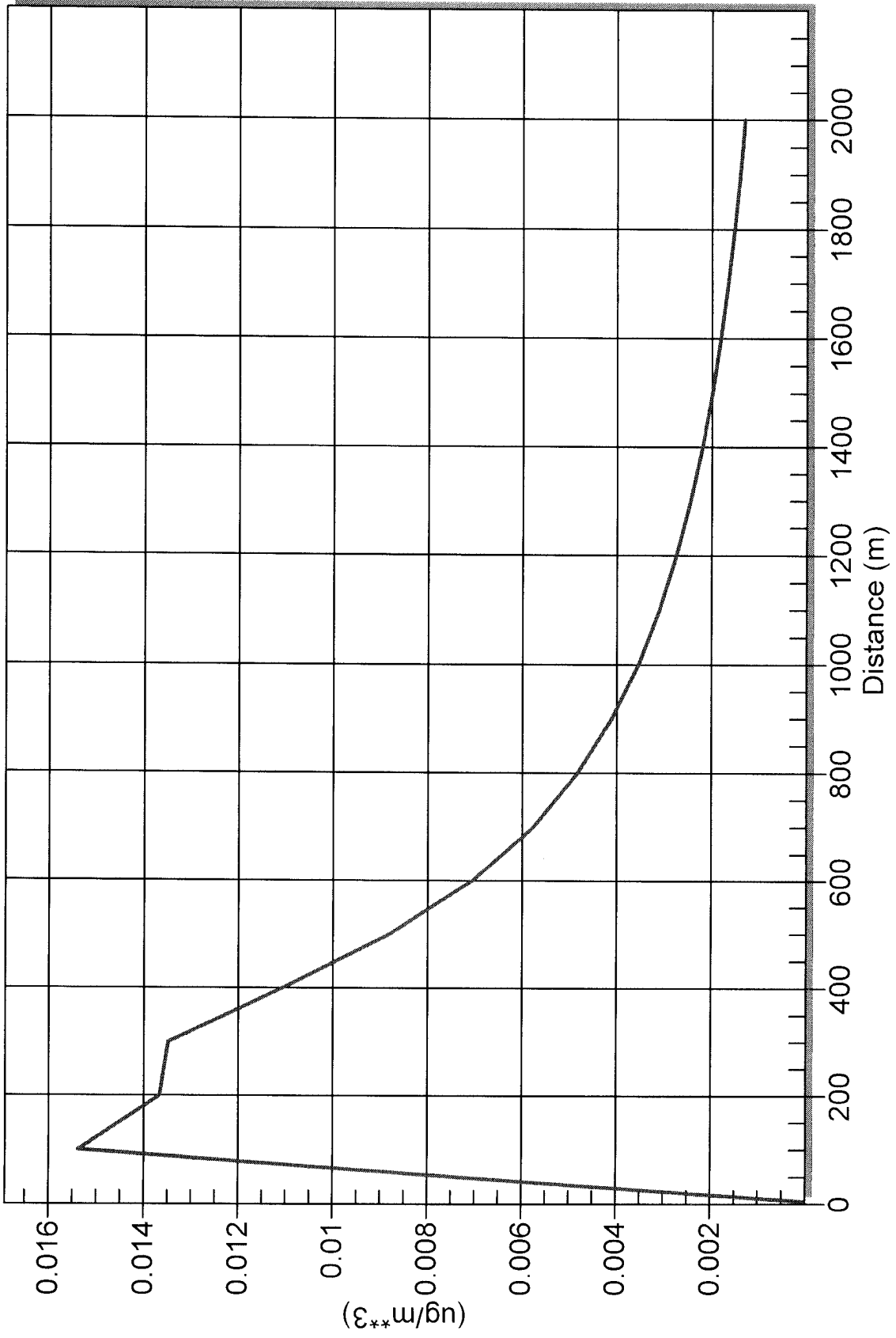
 *** SUMMARY OF SCREEN MODEL RESULTS ***

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
SIMPLE TERRAIN	0.1119E-01	65.	0.

 ** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **

5369500 MB Sinclair Tank Bty. 12-32-8-28 W1 (Venting @ 30 m3 OPD)

Terrain Height = 0.00 m.



NO	900.	0.4108E-02	6	1.0	1.0	10000.0	7.15	30.78	12.98
NO	1000.	0.3543E-02	6	1.0	1.0	10000.0	7.15	33.88	13.95
NO	1100.	0.3104E-02	6	1.0	1.0	10000.0	7.15	36.96	14.82
NO	1200.	0.2747E-02	6	1.0	1.0	10000.0	7.15	40.01	15.66
NO	1300.	0.2452E-02	6	1.0	1.0	10000.0	7.15	43.04	16.47
NO	1400.	0.2206E-02	6	1.0	1.0	10000.0	7.15	46.05	17.26
NO	1500.	0.1997E-02	6	1.0	1.0	10000.0	7.15	49.03	18.03
NO	1600.	0.1819E-02	6	1.0	1.0	10000.0	7.15	51.99	18.78
NO	1700.	0.1666E-02	6	1.0	1.0	10000.0	7.15	54.94	19.52
NO	1800.	0.1533E-02	6	1.0	1.0	10000.0	7.15	57.87	20.23
NO	1900.	0.1416E-02	6	1.0	1.0	10000.0	7.15	60.78	20.94
NO	2000.	0.1313E-02	6	1.0	1.0	10000.0	7.15	63.68	21.63

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 5. M:
 NO 65. 0.1651E-01 3 1.0 1.0 320.0 7.15 8.49 5.09

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	0.1651E-01	65.	0.

 ** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
