

## Appendix 5B Visjet Output Files of Emergency Overflow

ARBITRARILY INCLINED BUOYANT JET DISCHARGED IN FLOWING, STRATIFIED AMBIENT  
CASE NO. 1 JETLAG 2000  
TITLE Jet1

### INPUT PARAMETERS ^^^^^^^^^^^^^^^^^^^^

ENTRAINMENT HYPOTHESIS : ASYMMETRIC  
SHEAR ENTRAINMENT : VARIABLE (0 - 0.085)  
COFLOW FACTOR : STANDARD  
TIME STEP CONTRL : VARIABLE (> 0.985)  
MAX NUMBER OF TIME STEPS : 1500  
PRINTOUT INTERVAL : 100  
MAX NUMBER OF ITERATIONS : 5  
ITERATION ERROR BOUND : 0.00100  
APPROX RATIO OF MASS/DMASS: 144.0

### ENVIROMENTAL CONDITIONS ^^^^^^^^^^^^^^^^^^^^

DEPTH(m) SIGMAT U(m/s)  
EXIT 3.00 -2.00 1.118  
.....  
AMBIENT 0.00 14.00 0.050  
1.00 14.50 0.050  
2.00 15.00 0.050  
3.00 15.50 0.050  
3.50 16.00 0.050

### LENGTH & DILUTION SCALES ^^^^^^^^^^^^^^^^^^^^

Total Q ... 0.0549 (m3/s) Qj ... 5.49E-02 (m3/s)  
Port No. ... 1 Mj ... 6.13E-02 (m4/s2)  
Depth ... 3.0000 (m) Bj ... 9.27E-03 (m4/s3)  
Diameter ... 0.2500 (m) IQ ... 0.2216 (m)  
Uj ... 1.1176 (m/s) lm ... 4.9523 (m)  
Ua ... 0.0500 (m/s) lb ... 74.1693 (m)  
dp/pa ... 0.01723 IM ... 1.2797 (m)  
po ... 0.99800(g/cc) Sm ... 22.3524  
pa ... 1.01550(g/cc) Sb ... 999.0000  
Ver. ang ... 0.00 IQ/lm ... 0.0447  
Hor. ang ... 90.00 IQ/lm ... 0.1731  
Fd ... 5.44 lm/lb ... 0.0668  
Uj/Ua ... 22.35 IM/lb ... 0.0173

Stratification case:  
T ... -122.50

X	Y	Z	PLUME RADIUS (m)	AVERAGE DENSITY (m)	DILUTION (sigmat)	DENSITY VELOCITY DIFF. (m/s)
0.000	0.000	0.000	0.125	1.00	17.4999	1.118
0.017	0.765	0.053	0.244	1.95	8.8577	0.574
0.113	1.926	0.464	0.451	3.88	4.2761	0.333
0.351	3.069	1.555	0.743	7.75	1.7302	0.245
0.706	3.910	3.005	1.099	13.38	0.4360	0.193

NUMBER OF STEPS = 377  
SURFACE LAYER (CENTER) LEVEL = 2.12 M ABOVE DISCHARGE PORT  
AVG DILUTION = 9.85

COMPUTATIONS CEASE: PLUME HITS WATER SURFACE  
AVG DILUTION AT WATER SURFACE = 13.36