



Mannering Colliery Monthly Website Report – January 2026

Site:	Mannering Colliery
Department:	Health Safety and Environment
Report Title:	Monthly Environmental Report – January 2026
Report Date:	6 th February 2026
Distribution:	Delta Coal website

Table of Contents

Summary	3
Introduction	3
Scope	4
Definitions	4
References	4
Monitoring Results	5
Water – Quality	5
Water – Volume	7
Water – Groundwater Discharge	8
Air Quality – Depositional Dust	8
Air Quality – PM ₁₀	10
Air Quality – PM _{2.5}	12
Weather Data	12

Monthly Website Report

Manning Colliery Monthly Environmental Report – January 2025

Summary

Environmental monitoring results are presented in this report for monitoring undertaken during the period of January 2025.

Introduction

Great Southern Energy Pty Ltd (trading as Delta Coal) operates Manning Colliery, an underground coal mine at the southern end of Lake Macquarie.

Manning Colliery operates under the following regulatory instruments:

- Section 66(6) of the *Protection of the Environmental Operations Act 1997*, to make monitoring data related to an Environment Protection Licence (EPL) publicly available;
- Condition 10 & 13, Schedule 5, of Project Approval 06_0311 (as modified) to provide details of monitoring results and environmental performance;
- An Environment Protection Licence (EPL 191) issued under the *Protection of the Environment Operations Act 1997*; and
- A Water Access Licence (WAL40461), Aquifer (Sydney Basin – North Coast Groundwater Source) for 450-unit shares (megalitres).

Details of the Manning Colliery EPL 191 are provided below.

Manning Colliery Information	
Premises name	Manning Colliery
Address	Ruttleys Road, Doyalson, NSW, 2262
Licensee	Great Southern Energy Pty Ltd
EPL #	191
EPL location	EPL 0191 - 24 June 2025

The overall purpose of this monthly report is to keep stakeholders informed of the environmental monitoring results at Manning Colliery and maintain a transparent and accountable reporting system.

Scope

This report presents the results from the various environmental monitoring programs undertaken for Manning Colliery. Results are presented monthly with annual data, averages and trends in data also shown where relevant.

Where applicable, the results of the monitoring programs are compared with the relevant criteria (from the EPL or Project Approval) to assess compliance.

Monitoring results presented include:

- Water – quality;
- Water – volume;
- Air Quality – Depositional Dust
- Air Quality – PM₁₀
- Air Quality – PM_{2.5}; and
- Meteorological data.

Definitions

g/m²/month – grams per square metre per month;

kL – kilolitre;

ML – megalitre;

mg/L – milligrams per litre;

TSS – total suspended solids;

µg/L – micrograms per litre; and

µS/cm – microSiemens per centimetre.

References

Project Approval MP06_0311 (as modified)

Environment Protection Licence 191 (Licence version date: 9 April 2025)

ALS - Dust Deposition Report **January 2026**

ALS – MC Water Analysis Reports **January 2026**

Monthly Website Report

Mannering Colliery Monthly Environmental Report – January 2025

Monitoring Results

Water – Quality

Weekly water quality results for discharge point LDP001 are presented below.

January 2026				
EPL	191			
Licensee	Great Southern Energy Pty Ltd			
Premises	Mannering Colliery			
Location	LDP001 (EPA ID # 1)			
Sample Frequency	Weekly			
pH limit	6.5 - 8.5			
TSS limit (mg/L)	50			
Oil and grease limit (mg/L)	10			
Water Quality Results				
Date	pH	TSS (mg/L)	Oil and grease (mg/L)	Electrical Conductivity (µS/cm)
6/01/2026	8.53	15	<5	10500
13/01/2026	7.84	10	<5	23600
23/01/2026	7.72	20	<5	24200
27/01/2026	7.80	18	<5	29800
Average	7.97	15.75	<5	22025

There were no exceedances of water quality criteria in January 2026 at Mannering Colliery.

Monthly water quality results, primarily metals and metalloids, at LDP001 are presented below.

Monthly Website Report

Manning Colliery Monthly Environmental Report – January 2025

Sub-Matrix: WATER (Matrix: WATER)		Sample ID		LDP001
		Sampling date / time		13-Jan-2026 08:20
Compound	CAS Number	LOR	Unit	EN2600570-001
				Result
ED040F: Dissolved Major Anions				
Sulfur as S	63705-05-5	1	mg/L	108
Silicon as SiO2	7440-21-3	0.1	mg/L	7.9
ED093T: Total Major Cations				
Calcium	7440-70-2	1	mg/L	171
Magnesium	7439-95-4	1	mg/L	244
Potassium	7440-09-7	1	mg/L	30
EG020F: Dissolved Metals by ICP-MS				
Aluminium	7429-90-5	10	µg/L	<10
Arsenic	7440-38-2	1	µg/L	1
Beryllium	7440-41-7	1	µg/L	<1
Cadmium	7440-43-9	0.1	µg/L	<0.1
Chromium	7440-47-3	1	µg/L	<1
Cobalt	7440-48-4	1	µg/L	<1
Copper	7440-50-8	1	µg/L	<1
Lead	7439-92-1	1	µg/L	<1
Manganese	7439-96-5	1	µg/L	47
Molybdenum	7439-98-7	1	µg/L	5
Nickel	7440-02-0	1	µg/L	2
Selenium	7782-49-2	10	µg/L	<10
Silver	7440-22-4	1	µg/L	<1
Vanadium	7440-62-2	10	µg/L	<10
Zinc	7440-66-6	5	µg/L	11
EG020T: Total Metals by ICP-MS				
Aluminium	7429-90-5	10	µg/L	20
Antimony	7440-36-0	1	µg/L	<1
Arsenic	7440-38-2	1	µg/L	2
Beryllium	7440-41-7	1	µg/L	<1
EG020T: Total Metals by ICP-MS - Continued				
Barium	7440-39-3	1	µg/L	184
Cadmium	7440-43-9	0.1	µg/L	<0.1
Chromium	7440-47-3	1	µg/L	<1
Cobalt	7440-48-4	1	µg/L	<1
Copper	7440-50-8	1	µg/L	2
Lead	7439-92-1	1	µg/L	<1
Lithium	7439-93-2	1	µg/L	533
Molybdenum	7439-98-7	1	µg/L	6
Nickel	7440-02-0	1	µg/L	2
Selenium	7782-49-2	10	µg/L	<10
Silver	7440-22-4	1	µg/L	<1
Tin	7440-31-5	1	µg/L	<1
Titanium	7440-32-6	10	µg/L	<10
Vanadium	7440-62-2	10	µg/L	<10
Zinc	7440-66-6	5	µg/L	17
Boron	7440-42-8	50	µg/L	350
Iron	7439-89-6	50	µg/L	110
EG035F: Dissolved Mercury by FIMS				
Mercury	7439-97-6	0.1	µg/L	<0.1
EG035T: Total Recoverable Mercury by FIMS				
Mercury	7439-97-6	0.1	µg/L	<0.1
EK055G: Ammonia as N by Discrete Analyser				
Ammonia as N	7664-41-7	0.01	mg/L	0.81
EK067G: Total Phosphorus as P by Discrete Analyser				
Total Phosphorus as P	----	0.01	mg/L	<0.01

Monthly Website Report

Mannering Colliery Monthly Environmental Report – January 2025

Water – Volume

Monthly water volumes discharged via MC's LDP1 during January 2026 at Mannering Colliery are summarised below.

EPL	191
Licensee	Great Southern Energy Pty Ltd
Premises	Mannering Colliery
Date Sampled	Daily
Discharge volume limit	4000 kilolitres per day
Sampling Point	LDP001 (EPA ID # 1)

Date (24 hour period)	LDP 1 Volume (kL/day)	Rainfall (mm)
1/01/2026	998.50	4.6
2/01/2026	730.08	1
3/01/2026	1018.31	1.4
4/01/2026	1041.49	12.4
5/01/2026	969.59	0
6/01/2026	552.21	0
7/01/2026	867.68	0
8/01/2026	953.44	0
9/01/2026	1001.13	0
10/01/2026	800.17	0
11/01/2026	192.95	37.2
12/01/2026	797.27	3.8
13/01/2026	740.91	0.4
14/01/2026	751.87	6.2
15/01/2026	1424.87	23.6
16/01/2026	165.56	0
17/01/2026	574.33	72
18/01/2026	3442.23	45
19/01/2026	1778.53	4.8
20/01/2026	1145.26	0.2
21/01/2026	654.06	0
22/01/2026	824.76	0
23/01/2026	719.02	0
24/01/2026	862.46	0
25/01/2026	850.11	0
26/01/2026	689.17	0
27/01/2026	367.00	0
28/01/2026	612.62	0
29/01/2026	851.70	0
30/01/2026	1594.30	0
31/01/2026	1526.24	0

Average	3442.23 kL/day	72 mm/day
Maximum	951.54 kL/day	6.9 mm/day

Volumetric discharge remained below the daily limit of 4,000 kL per day.

Monthly Website Report

Manning Colliery Monthly Environmental Report – January 2025

Water – Groundwater Discharge

Groundwater discharged from underground workings to the MCs surface retention Dams has been detailed below. Manning Colliery operates Water Access License 40461 permitting the extraction of 450 megalitres per financial year and reports annual use to the Water NSW, Water Accounting System (iWAS).

MC Groundwater Pumped to Surface Totals FY2025-2026		
Date (month)	GW Discharge (ML/Month)	GW Discharge (Cumulative ML YTD)
July 2025	22	22
August 2025	24	46
September 2025	20	66
October 2025	25	91
November 2025	23	114
December 2025	22	136
January 2026	20	156

Air Quality – Depositional Dust

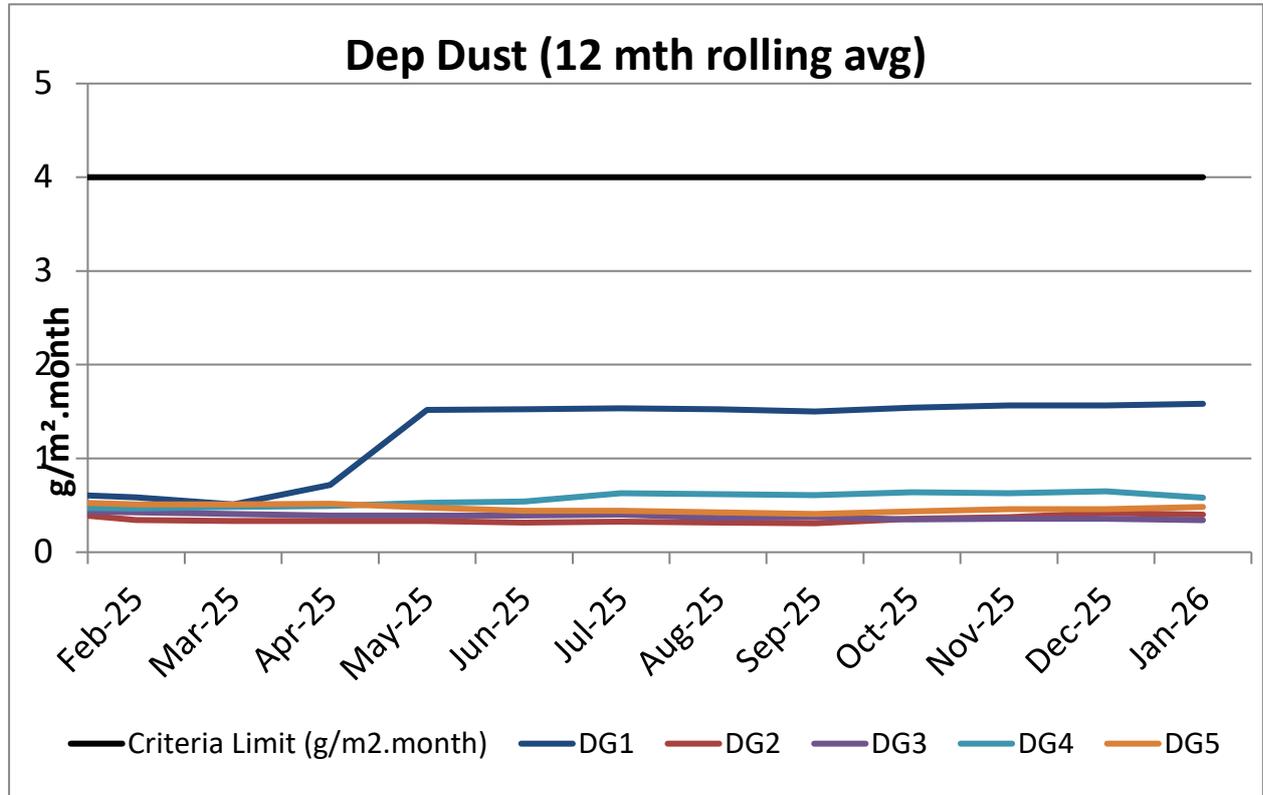
Monthly depositional dust results are shown below.

December 2025		
EPL	191	
Limits	Max. total deposited dust level	4g/m ² /month
	Max. increase in deposited dust level	2g/m ² /month
Sampling Date	5/12/2025 – 6/01/2026	
EPA ID no.	Site	Insoluble Matter (g/m ² /month)
3	DG1	0.7
4	DG2	0.4
5	DG3	0.6
6	DG4	0.5
7	DG5	0.8
Notes:	Sampling locations provided in Delta Coal Air Quality and Greenhouse Gas Management Plan available on the Delta Coal website.	

Monthly Website Report

Manning Colliery Monthly Environmental Report – January 2025

A 12-month rolling average of depositional dust concentrations has been presented below. Manning Colliery's dust gauges are located around the perimeter of the Manning Colliery site boundary.

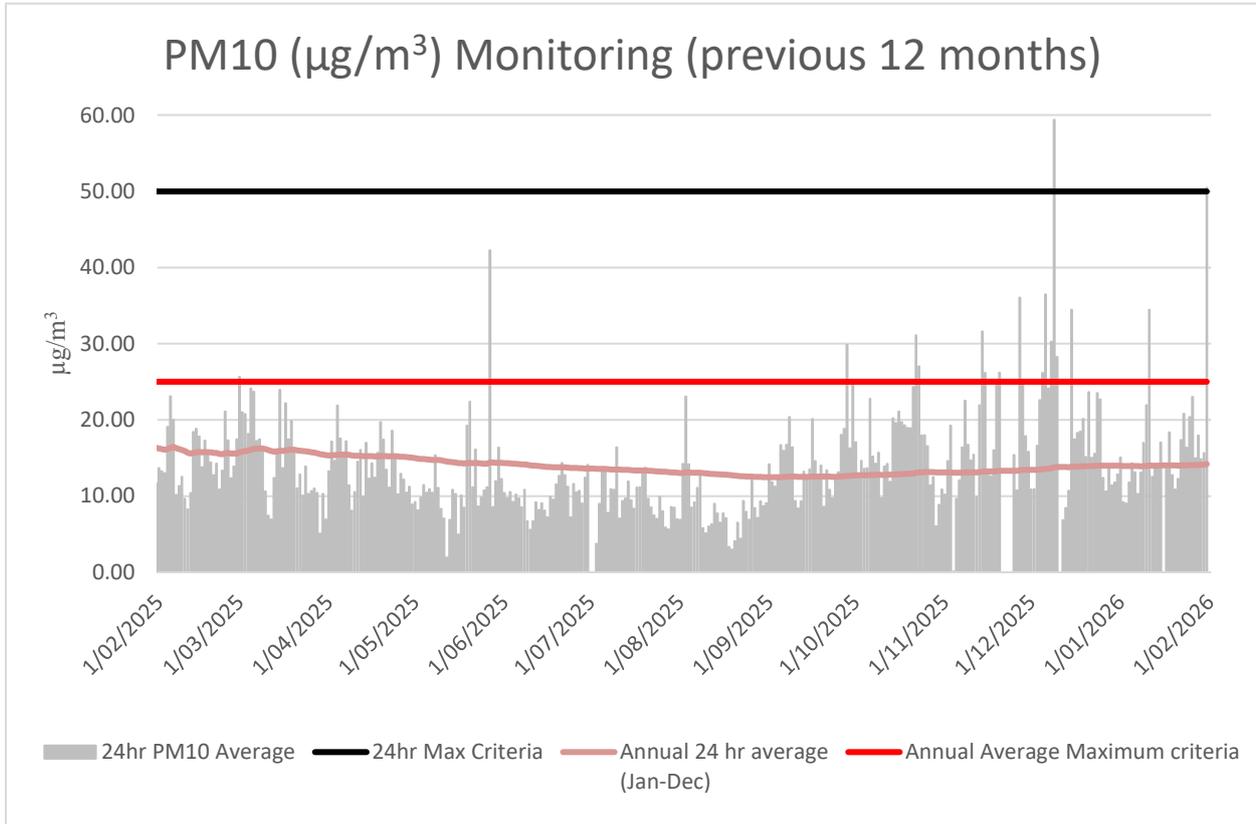


Monthly Website Report

Manning Colliery Monthly Environmental Report – January 2025

Air Quality – PM₁₀

The 24hr PM₁₀ average from Delta Coal’s Tapered Element Oscillating Microbalance (TEOM), located at the Manning Park Sewage Treatment Plant, is presented below for the previous 12 months.



Annual 24hr PM₁₀ average maximum criteria for January 2026 was below the annual average maximum criteria limit. A summary of data availability for Delta Coal’s TEOM is presented below for the reporting period. Delta Coals TEOM had a data availability of 98% for the month of January 2026.

During the period, there was one exceedance of the PM₁₀ 24hr average limit of 50 µg/m³. The 24hr average on 31 January 2026 was 50.5 µg/m³.

Monthly Website Report

Manning Colliery Monthly Environmental Report – January 2025

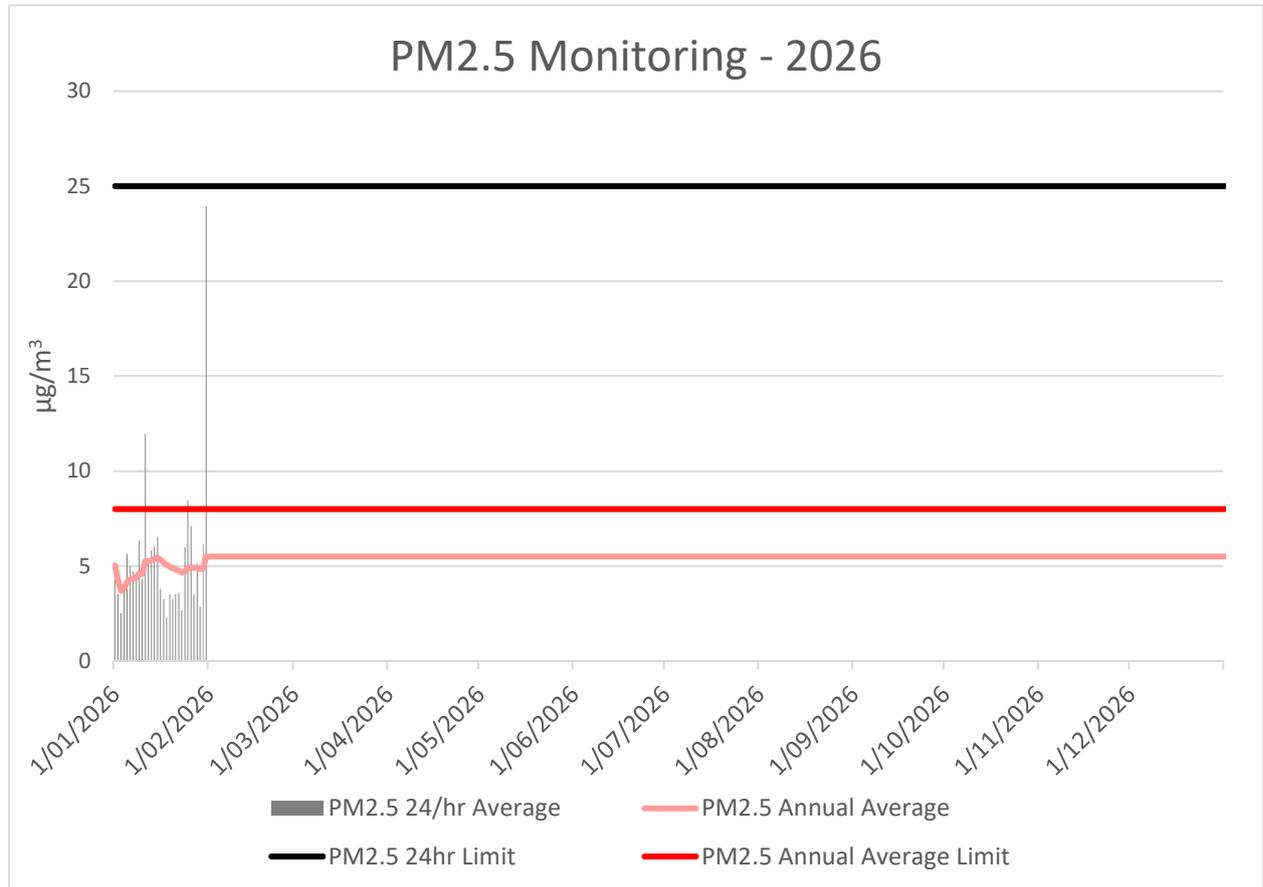
Variable	January	Total	Valid
A/C Temp	98.3%	8928	8776
A1_Scaled	98.3%	8928	8776
Band	98.3%	8928	8776
Bypass Flow	98.3%	8928	8776
Cap Temp	98.3%	8928	8776
Case Temp	98.3%	8928	8776
Config	98.3%	8928	8776
Dew Point	98.3%	8928	8776
Dig-In	98.3%	8928	8776
Dig-Latch	98.3%	8928	8776
ESN	98.3%	8928	8776
Filter Freq	98.3%	8928	8776
Filter Load	98.3%	8928	8776
Humidity	98.3%	8928	8776
MC	98.3%	8928	8776
MC 12Hr	98.3%	8928	8776
MC 1Hr	98.3%	8928	8776
MC 24Hr	98.3%	8928	8776
MC 30min	98.3%	8928	8776
MC 8Hr	98.3%	8928	8776
MC Total	98.3%	8928	8776
Mobile Signal	98.3%	8928	8776
Noise	98.3%	8928	8776
PM10 Flow	98.3%	8928	8776
Pressure	98.3%	8928	8776
Site	0.0%	8928	0
Temperature	98.3%	8928	8776
Tube Temp	98.3%	8928	8776
Vac Pressure	98.3%	8928	8776
Volts	98.3%	8928	8776

Monthly Website Report

Manning Colliery Monthly Environmental Report – January 2025

Air Quality – PM2.5

Delta Coal utilises PM_{2.5} data obtained from Delta Electricity owned and operated beta attenuation monitor (BAM). The PM_{2.5} monitor is located on Tingley Road, Wyee.



There were no exceedances of the PM_{2.5} daily average limit in January 2026. The 12-month rolling average PM_{2.5} value on 31 January was 5.5 $\mu\text{g}/\text{m}^3$. PM_{2.5} data availability in January was 99.33%. The 2026 year to date PM_{2.5} data availability is 99.3%.

Monthly Website Report

Manning Colliery Monthly Environmental Report – January 2025

Weather Data

A summary of weather data recorded by a meteorological monitoring station at the adjacent Manning Colliery is presented below for the year to date. (EPA ID no. 26).

Monthly Weather Data 2026			
Licensee	Great Southern Energy Pty Ltd		
Location	Manning Colliery Meteorological station		
Date published	Refer report date		
Date sampled	Daily		
Date obtained	6 February 2026		
Month	Total Rainfall/Month (mm)	Min Temp	Max Temp
Jan-26	224	14.9	40.4

Monthly Website Report

Manning Colliery Monthly Environmental Report – January 2025

Variable	January	Total	Valid
Baro (Corrected)	99.9%	2976	2974
10m Temp	99.9%	2976	2974
2m Temp	99.9%	2976	2974
A1_Scaled	99.9%	2976	2974
Assumed Temp	99.9%	2976	2974
Band	99.9%	2976	2974
Barometric	99.9%	2976	2974
Config	99.9%	2976	2974
Daily Evap	99.9%	2976	2974
Daily Rain	99.9%	2976	2974
Delta T	99.9%	2976	2974
Dew Point	99.9%	2976	2974
Dig-In	99.9%	2976	2974
Dig-Latch	99.9%	2976	2974
ESN	99.9%	2976	2974
FDI	99.9%	2976	2974
Heat Index	99.9%	2976	2974
Humidity	99.9%	2976	2974
Mobile Signal	99.9%	2976	2974
Rain	99.9%	2976	2974
Raw Evap	99.9%	2976	2974
S Class	99.9%	2976	2974
Scalar WS	99.9%	2976	2974
Sigma	99.9%	2976	2974
Site	0.0%	2976	0
Solar Radiation	99.9%	2976	2974
Vector WD	99.9%	2976	2974
Vector WS	99.9%	2976	2974
Volts	99.9%	2976	2974
Wind Chill	99.9%	2976	2974
Wind Direction	99.9%	2976	2974
Wind Speed	99.9%	2976	2974
WS Avg	99.9%	2976	2974
WS Gust	99.9%	2976	2974