

**TINTINA RESOURCES, INC.
BLACK BUTTE COPPER PROJECT
AMBIENT AIR
MONITORING PROGRAM
Quarterly Data Report
Fourth Quarter 2013**

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February 14, 2014

CERTIFICATION OF DATA INTEGRITY

Bison Engineering, Inc., certifies the data in this report is an accurate summary of the air quality conditions measured at the Black Butte Copper Project air monitoring site. Every effort was made to obtain accurate and representative data and to comply with the procedures set forth in the *Quality Assurance Project Plan*, the *State of Montana Ambient Air Monitoring Program Quality Assurance Project Plan*, the Environmental Protection Agency's *Quality Assurance Handbook for Air Pollution Measurement Systems: Volume II, Ambient Air Specific Methods (April 1994)*, and EPA's *Quality Assurance Handbook for Air Pollution Measurement Systems, Volume II, Part 1, Ambient Air Quality Monitoring Program Quality System Development (March 1998)*.

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APPENDICES

- Appendix A: Meteorological Data
- Appendix B: Performance Audit Reports

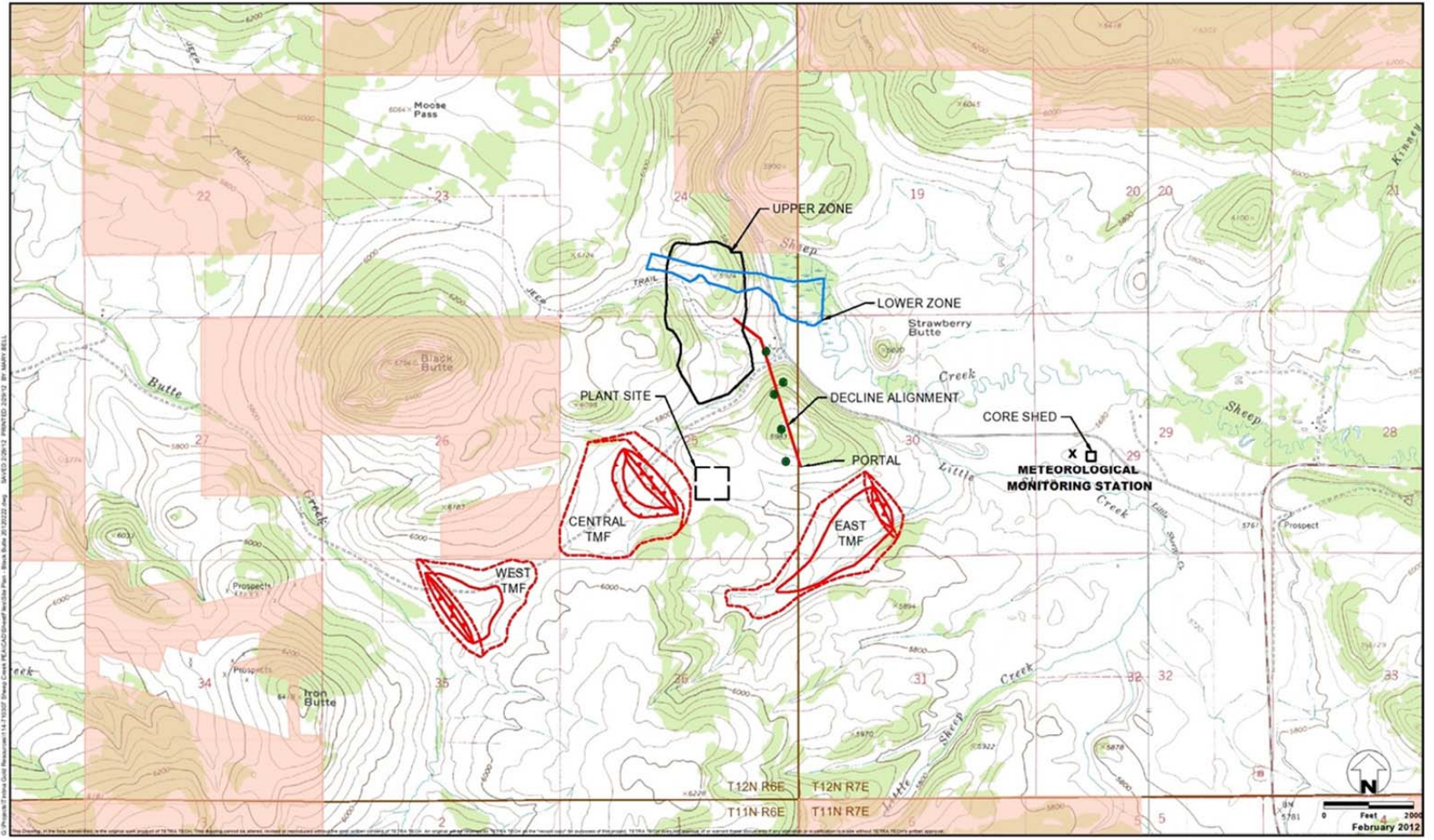
1.0 INTRODUCTION

Tintina Resources, Inc. established an ambient air monitoring site to measure wind speed, wind direction, standard deviation of wind direction, temperature at 9 meters and 2 meters, delta temperature, solar radiation, barometric pressure, and precipitation. The station was established to accurately characterize the local meteorology and collect baseline data in support of an operating permit application and various environmental studies.

The site of the meteorological monitoring system was installed in April 2012. The site is operated by Bison Engineering, Inc., of Helena and Billings. Figure 1 shows the location of the monitoring site.

This report presents the data collected during the fourth quarter (October through December) of 2013. In addition, a description of the monitoring system operations is presented, together with summaries of quality assurance activities, including calibrations and performance audits. Tabular summaries of the data completeness achieved and the periods of missing data also are presented. Appendix A presents hourly meteorological data collected.

Figure 1. Monitoring Site Location



Site Plan
Black Butte Copper Project
Meagher County, Montana
FIGURE 1
February 2012

2.0 MONITORING SYSTEM OPERATIONS

The installation of the monitoring meteorological system equipment took place in April 2012, soon after the equipment was received from the manufacturers. The installation and calibration of the equipment required about two weeks to complete. All meteorological parameters were in full operation and producing valid data by April 30, 2012.

Jeff Bell of Bison Engineering, Inc. (Bison) conducted performance audits of the meteorological system at the site on December 17. All results were within the recommended tolerance limits. The Bison report of the audits is presented in Appendix B.

3.0 CALIBRATION DATA

Meteorological system calibration is performed:

- No later than 180 days after the most recent calibration that indicated the meteorological system response to be acceptable;
- After interruption of meteorological system operation for an extended period;
- Following any repairs which might affect meteorological system calibration;
- Following a physical relocation of the meteorological system; or
- After any other indication of significant inaccuracy of the meteorological system, such as failed system.

The wind, temperature and humidity instruments were audited on December 17, and those results were all within acceptance limits. However, the orientation of the wind direction sensor was adjusted slightly at the conclusion of the audit. Those results are shown in Appendix B.

4.0 PERFORMANCE AUDIT DATA

Jeff Bell of Bison conducted performance audits of the wind, temperature and humidity sensors at the site on December 17. All of the audit results were within the recommended tolerance limits. The audit results are presented in Appendix B.

The barometric pressure sensor also was checked, but a significant discrepancy was noted between the sensor response and the transfer standard. It was subsequently decided that the transfer standard's accuracy was suspect. The barometer will be rechecked during the next audit in the first quarter of 2014.

5.0 DATA COMPLETENESS

The meteorological percentages of data recovery achieved during the fourth quarter of 2013 are given in Tables 1 and 2. In these tables, the number of possible data values during each month of the quarter is given, together with the number of valid readings and the number of hours spent on quality assurance activities (such as calibrations, performance audits, and maintenance on the sensors). The quality assurance hours are added to the number of hours of valid data to compute the net percentage data recovery.

During the fourth quarter, the net data recovery for all parameters except precipitation was 91.9 percent. The loss of data was due to a power loss at the site at the start of the quarter.

For precipitation the net data recovery was 91.5 percent. Most of that data was lost due to the power loss referenced above. Additionally, ten hours of data in late December were invalidated because it was suspected that the precipitation gauge readings were being affected by blowing snow.

Table 1. Monthly Data Completeness

October 2013					
Parameter	Readings Possible	Valid Readings	Percentage Recovery	Quality Assurance Hours	Net Percentage Recovery
Black Butte Copper Project Met Tower					
Wind Speed	744	566	76.1	0	76.1
Wind Direction	744	566	76.1	0	76.1
Standard Deviation	744	566	76.1	0	76.1
Temperature 9 Meters	744	566	76.1	0	76.1
Temperature 2 Meters	744	566	76.1	0	76.1
Temperature Delta T	744	566	76.1	0	76.1
Solar Radiation	744	566	76.1	0	76.1
Barometric Pressure	744	566	76.1	0	76.1
Relative Humidity	744	566	76.1	0	76.1
Precipitation	744	566	76.1	0	76.1
Total	7,440	5,660	76.1	0	76.1

Table 1. Monthly Data Completeness (Continued)

November 2013					
Parameter	Readings Possible	Valid Readings	Percentage Recovery	Quality Assurance Hours	Net Percentage Recovery
Black Butte Copper Project Met Tower					
Wind Speed	720	720	100.0	0	100.0
Wind Direction	720	720	100.0	0	100.0
Standard Deviation	720	720	100.0	0	100.0
Temperature 9 Meters	720	720	100.0	0	100.0
Temperature 2 Meters	720	720	100.0	0	100.0
Temperature Delta T	720	720	100.0	0	100.0
Solar Radiation	720	720	100.0	0	100.0
Barometric Pressure	720	720	100.0	0	100.0
Relative Humidity	720	720	100.0	0	100.0
Precipitation	720	720	100.0	0	100.0
Total	7,200	7,200	100.0	0	100.0

Table 1. Monthly Data Completeness (Continued)

December 2013					
Parameter	Readings Possible	Valid Readings	Percentage Recovery	Quality Assurance Hours	Net Percentage Recovery
Black Butte Copper Project Met Tower					
Wind Speed	744	741	99.6	3	100.0
Wind Direction	744	741	99.6	3	100.0
Standard Deviation	744	741	99.6	3	100.0
Temperature 9 Meters	744	741	99.6	3	100.0
Temperature 2 Meters	744	741	99.6	3	100.0
Temperature Delta T	744	741	99.6	3	100.0
Solar Radiation	744	741	99.6	3	100.0
Barometric Pressure	744	741	99.6	3	100.0
Relative Humidity	744	741	99.6	3	100.0
Precipitation	744	731	98.3	3	98.7
Total	7,440	7,400	99.5	30	99.9

Table 2. Quarterly Data Completeness

Fourth Quarter 2013					
Parameter	Readings Possible	Valid Readings	Percentage Recovery	Quality Assurance Hours	Net Percentage Recovery
Black Butte Copper Project Met Tower					
Wind Speed	2,208	2,027	91.8	3	91.9
Wind Direction	2,208	2,027	91.8	3	91.9
Standard Deviation	2,208	2,027	91.8	3	91.9
Temperature 9 Meters	2,208	2,027	91.8	3	91.9
Temperature 2 Meters	2,208	2,027	91.8	3	91.9
Temperature Delta T	2,208	2,027	91.8	3	91.9
Solar Radiation	2,208	2,027	91.8	3	91.9
Barometric Pressure	2,208	2,027	91.8	3	91.9
Relative Humidity	2,208	2,027	91.8	3	91.9
Precipitation	2,208	2,017	91.4	3	91.5
Total	22,080	20,260	91.8	30	91.9

Table 3. Periods of Missing Data

Fourth Quarter 2013						
Starting Date/Hour	Ending Date/Hour	Site	Parameter	Total Hours	Percent of Quarter	Circumstance
October 1/1	October 8/11	Met Tower	All	178	8.06	Missing data: Power failure
December 24/10	December 24/19	Met Tower	Precip.	10	0.45	Readings affected by drifting snow

6.0 MONITORING DATA

The hourly data values collected at the monitoring sites are given in the data tables in Appendix A. Each of these tables presents one month's data for all parameters in the monitoring system. In addition, the average, maximum, and minimum values for each parameter for each day are listed (for wind direction, the prevailing wind direction for the day is given). For those hours with missing data, a code is given that explains the reason the data were missing. These codes are given in Table 4.

Monthly and quarterly wind rose distributions from the monitoring site are presented in Tables 5 through 8. These tables give the percentage frequency of occurrence of winds from 16 cardinal directions and from 22 wind speed ranges. These same data are presented graphically in Figures 2 through 5. In the wind rose figures, the length of each "petal" of the rose is proportional to the percentage of time the wind blew from that direction. On the bottom of each figure is a histogram showing the average wind speed from each of the cardinal wind directions.

Table 4. Missing Data Codes

Mnemonic Code	Description	Equivalent EPA Null Value Reason Code
Sc	Scheduled but not collected	9972
Ti	Sample time out of limits	9973
Fi	Filter damage	9976
Op	Voided by operator	9978
ND	Machine malfunction	9980
Wx	Bad weather	9981
Co	Collection error	9983
Lb	Lab error	9984
QA	Poor quality assurance results	9985
Pwr	Power failure	9988
Wi	Wildlife damage	9989
AZ	Automatic zero/span check	9991
ZS	Manual zero/span check	9986
Au	Performance audit	9992
Ma	Routine maintenance/repairs	9993
Ca	Multipoint calibration	9995
PZ	Precision/zero/span	9998

Table 5. Monthly Wind Rose Summary, Black Butte Copper Project Met Tower

October 2013																		
Direction>>>	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Total	
Wind Speed (meters per second)	0.1 - 1.0	2.1	1.4	3.5	1.8	4.6	4.4	3.2	1.9	0.5	0.4	0.4	0.5	0.4	0.5	1.4	2.1	29.2
	1.1 - 2.0	0.5	0.7	1.1	2.5	4.1	4.1	1.9	1.4	0.7	0.7	0.9	0.9	1.4	1.1	1.6	0.4	23.9
	2.1 - 3.0	0.4	0.4	0.2	1.1	1.2	1.2	0.9	0.7	0.7	0.0	0.7	0.2	0.7	1.4	0.7	0.9	11.3
	3.1 - 4.0	0.5	0.2	0.0	1.2	1.4	0.2	0.0	1.2	0.0	0.0	0.2	0.5	2.5	2.1	2.7	0.2	12.9
	4.1 - 5.0	0.2	0.0	0.9	0.7	0.2	0.0	0.4	1.4	0.0	0.0	0.0	0.4	2.3	2.8	0.4	0.4	9.9
	5.1 - 6.0	0.0	0.0	0.2	0.2	0.0	0.0	0.4	0.2	0.0	0.0	0.0	0.0	1.9	2.5	1.6	0.0	6.9
	6.1 - 7.0	0.0	0.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.9	0.9	0.0	3.4
	7.1 - 8.0	0.0	0.0	0.2	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.7	0.0	0.2	0.0	1.4
	8.1 - 9.0	0.0	0.2	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.7
	9.1 - 10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.5
	10.1 - 11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	11.1 - 12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	12.1 - 13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	13.1 - 14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	14.1 - 15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	15.1 - 16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	16.1 - 17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	17.1 - 18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	18.1 - 19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	19.1 - 20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
> 20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Calm																		0.0
Total	3.7	3.0	6.4	7.4	11.5	9.9	7.1	7.6	1.9	1.1	2.1	2.5	11.3	11.3	9.4	3.9	100.0	
Average Speed	1.5	2.1	2.1	2.2	1.6	1.3	1.9	3.0	1.7	1.0	1.8	2.4	4.4	4.0	3.5	1.6	2.6	

Table 6. Monthly Wind Rose Summary, Black Butte Copper Project Met Tower

November 2013																		
Direction>>>	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Total	
Wind Speed (meters per second)	0.1 - 1.0	1.4	2.2	3.2	1.9	1.7	2.1	2.9	1.4	0.8	0.0	0.8	0.6	0.4	1.3	1.3	1.3	23.2
	1.1 - 2.0	0.7	0.7	1.7	2.8	3.6	3.6	4.2	2.9	0.3	1.0	1.4	1.0	0.4	0.8	0.4	0.1	25.6
	2.1 - 3.0	0.0	0.0	0.1	0.7	2.1	2.8	0.1	0.3	1.3	0.6	0.8	1.7	2.6	2.1	0.4	0.1	15.7
	3.1 - 4.0	0.0	0.0	0.1	0.3	1.9	0.3	0.6	0.4	0.3	0.4	0.3	1.8	3.1	1.5	0.0	0.0	11.0
	4.1 - 5.0	0.0	0.0	0.0	0.1	0.3	0.0	0.1	0.1	0.3	0.4	0.0	0.3	3.2	1.9	0.0	0.0	6.8
	5.1 - 6.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.3	0.1	0.3	0.3	0.7	3.3	0.3	0.1	0.0	5.6
	6.1 - 7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.7	3.6	0.7	0.0	0.0	5.7
	7.1 - 8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.7	1.5	0.0	0.1	0.0	2.8
	8.1 - 9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.6	1.7	0.0	0.0	0.0	2.5
	9.1 - 10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.1	0.0	0.0	0.8
	10.1 - 11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.3
	11.1 - 12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	12.1 - 13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1
	13.1 - 14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	14.1 - 15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	15.1 - 16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	16.1 - 17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	17.1 - 18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	18.1 - 19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	19.1 - 20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
> 20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Calm																		0.0
Total	2.1	2.9	5.1	5.8	9.7	8.8	7.9	5.4	3.1	2.6	5.0	7.9	20.7	9.0	2.4	1.5	100.0	
Average Speed	1.0	0.9	1.1	1.5	2.1	1.8	1.5	1.8	2.3	2.9	3.4	4.0	5.3	3.6	1.9	0.9	2.9	

Table 7. Monthly Wind Rose Summary, Black Butte Copper Project Met Tower

December 2013																		
Direction>>>	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Total	
Wind Speed (meters per second)	0.1 - 1.0	1.9	2.3	2.4	1.6	2.6	2.7	2.3	2.0	0.5	0.3	0.4	0.9	0.0	0.5	0.7	1.8	22.9
	1.1 - 2.0	1.1	0.7	1.3	2.4	3.0	3.1	1.8	1.6	0.1	0.1	0.1	0.7	0.8	1.1	0.9	0.7	19.6
	2.1 - 3.0	0.4	0.0	0.3	1.6	1.9	1.1	0.5	0.0	0.1	0.0	0.0	1.3	1.5	2.3	1.3	0.1	12.6
	3.1 - 4.0	0.0	0.0	0.0	0.3	0.5	0.3	0.1	0.1	0.1	0.1	0.3	1.1	3.1	1.9	1.2	0.5	9.7
	4.1 - 5.0	0.0	0.0	0.0	0.5	0.1	0.0	0.0	0.0	0.1	0.4	0.3	1.2	4.0	3.0	1.9	0.3	11.9
	5.1 - 6.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.7	3.2	3.8	1.3	0.0	9.9
	6.1 - 7.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	3.6	1.5	0.5	0.0	6.6
	7.1 - 8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	2.0	0.7	0.1	0.3	3.8
	8.1 - 9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.4	0.9	0.0	0.0	2.0
	9.1 - 10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.5	0.0	0.0	0.7
	10.1 - 11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.0	0.0	0.4
	11.1 - 12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	12.1 - 13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	13.1 - 14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	14.1 - 15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	15.1 - 16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	16.1 - 17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	17.1 - 18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	18.1 - 19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	19.1 - 20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
> 20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Calm																		0.0
Total	3.8	3.0	4.0	6.6	8.1	7.2	4.7	3.8	1.1	1.1	1.5	8.1	18.9	16.5	8.1	3.6	100.0	
Average Speed	1.7	0.8	1.1	1.9	1.7	1.3	1.3	1.1	1.8	3.1	3.3	4.3	5.1	4.9	3.7	2.1	3.2	

Table 8. Quarterly Wind Rose Summary, Black Butte Copper Project Met Tower

Fourth Quarter 2013																		
Direction>>>	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Total	
Wind Speed (meters per second)	0.1 - 1.0	1.8	2.0	3.0	1.8	2.8	3.0	2.8	1.8	0.6	0.2	0.5	0.7	0.2	0.8	1.1	1.7	24.8
	1.1 - 2.0	0.8	0.7	1.4	2.6	3.5	3.6	2.7	2.0	0.3	0.6	0.8	0.8	0.8	1.0	0.9	0.4	22.9
	2.1 - 3.0	0.2	0.1	0.2	1.1	1.8	1.7	0.5	0.3	0.7	0.2	0.5	1.1	1.7	2.0	0.8	0.3	13.3
	3.1 - 4.0	0.1	0.0	0.0	0.5	1.3	0.2	0.2	0.5	0.1	0.2	0.2	1.2	2.9	1.8	1.2	0.2	11.1
	4.1 - 5.0	0.0	0.0	0.2	0.4	0.2	0.0	0.1	0.4	0.1	0.3	0.1	0.6	3.3	2.6	0.8	0.2	9.5
	5.1 - 6.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.2	0.5	2.9	2.2	1.0	0.0	7.5
	6.1 - 7.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.5	2.9	1.0	0.4	0.0	5.4
	7.1 - 8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5	1.5	0.2	0.1	0.1	2.8
	8.1 - 9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.8	0.3	0.0	0.0	1.8
	9.1 - 10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.3	0.2	0.0	0.0	0.7
	10.1 - 11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.2
	11.1 - 12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	12.1 - 13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	13.1 - 14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	14.1 - 15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	15.1 - 16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	16.1 - 17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	17.1 - 18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	18.1 - 19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	19.1 - 20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
> 20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Calm																		0.0
Total	3.2	3.0	5.1	6.6	9.6	8.5	6.5	5.4	2.0	1.6	2.9	6.5	17.4	12.4	6.4	3.0	100.0	
Average Speed	1.5	1.2	1.4	1.8	1.8	1.5	1.6	2.1	2.0	2.6	3.1	4.0	5.0	4.3	3.4	1.7	2.9	

Figure 2. Monthly Wind Rose, Black Butte Copper Project Met Tower

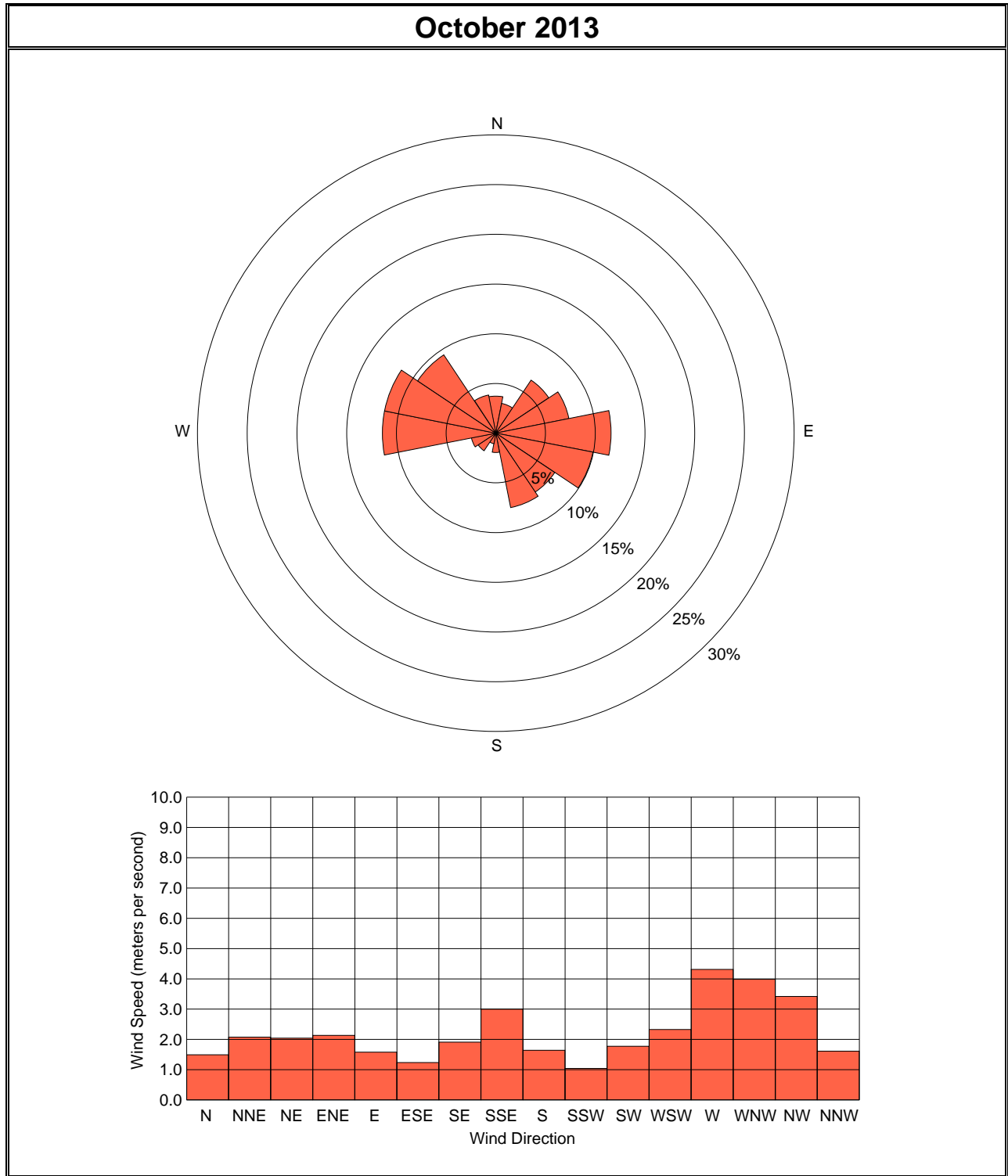


Figure 3. Monthly Wind Rose, Black Butte Copper Project Met Tower

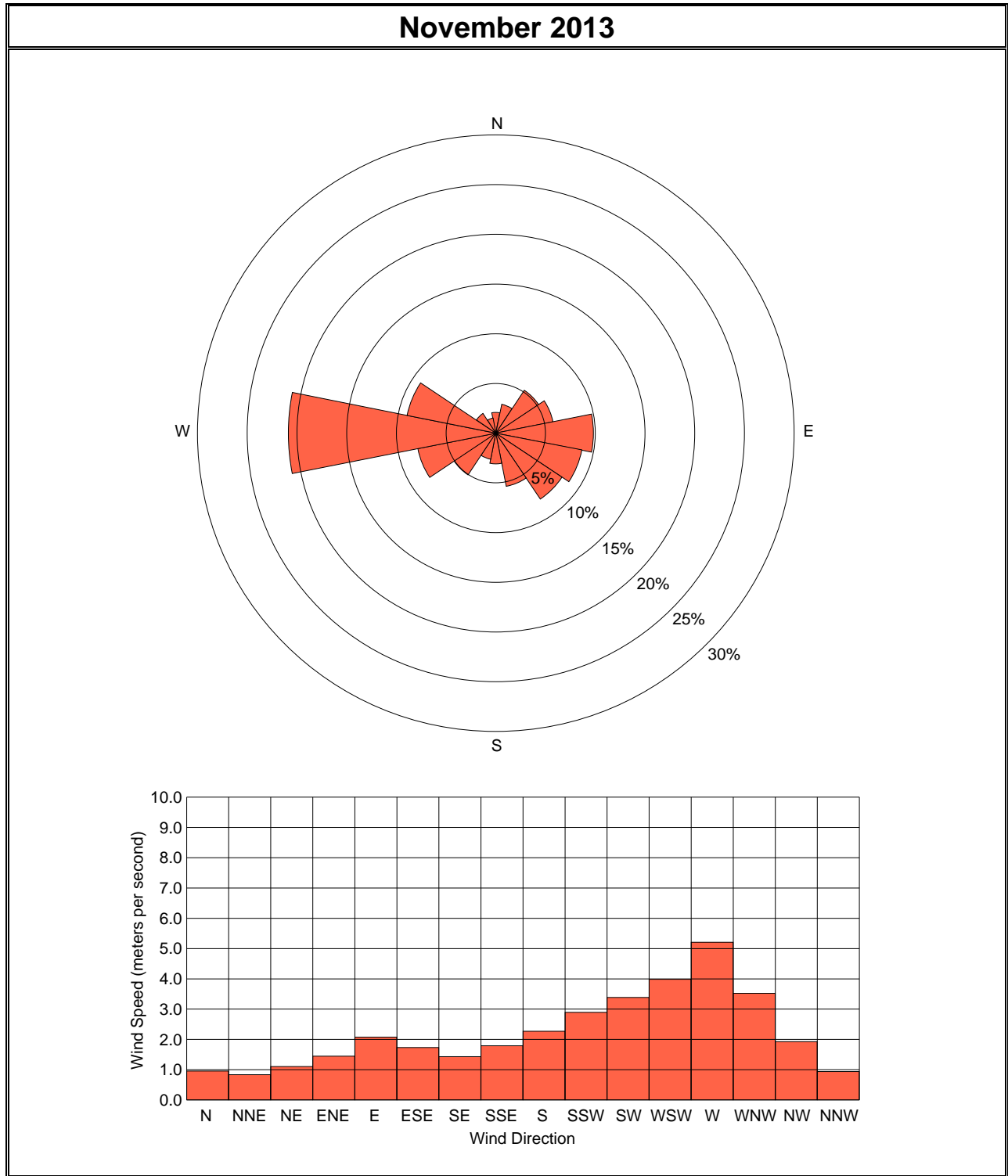


Figure 4. Monthly Wind Rose, Black Butte Copper Project Met Tower

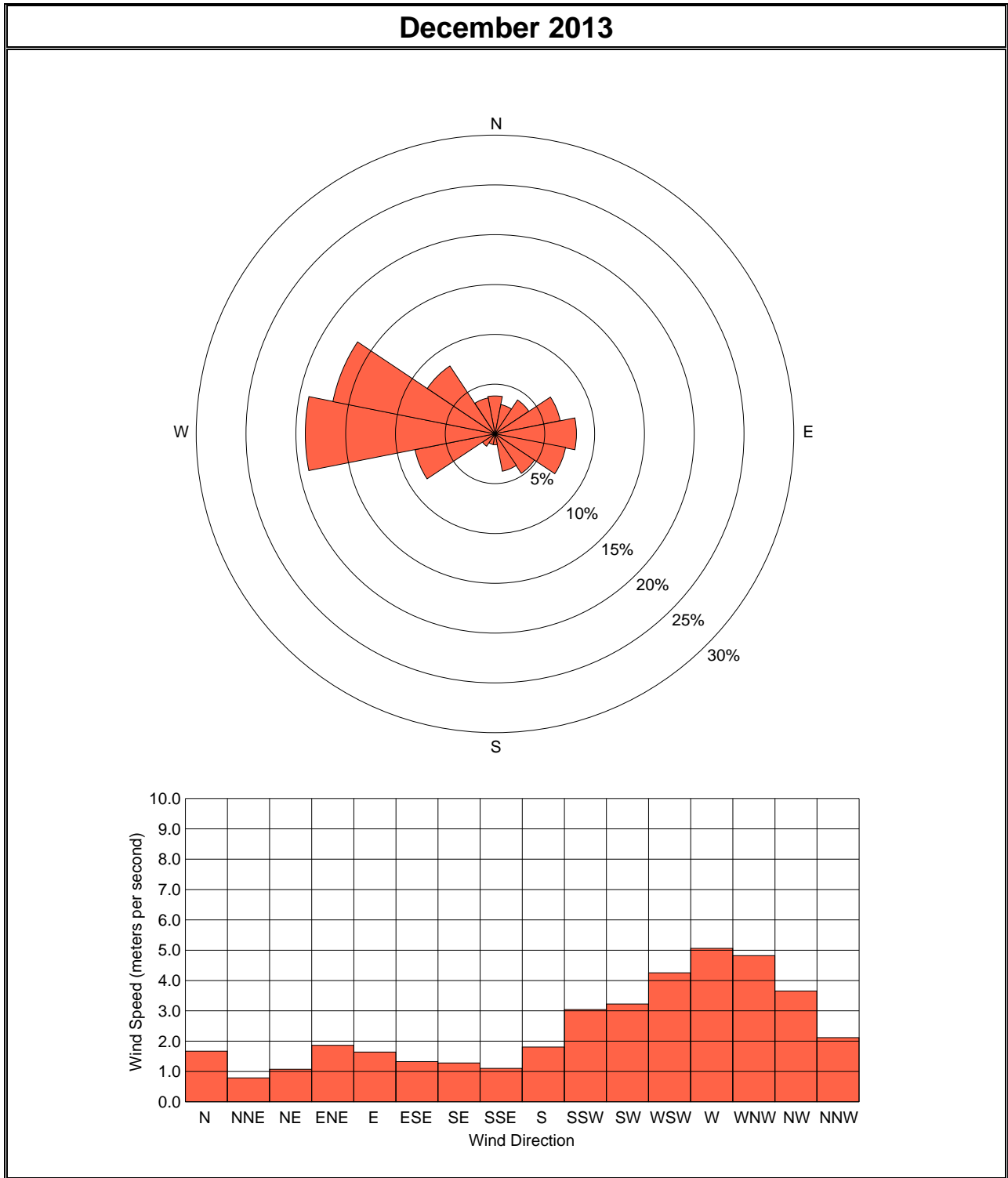


Figure 5. Quarterly Wind Rose, Black Butte Copper Project Met Tower

