



October 18, 2017

Wes Markus
BLV Group
10511, 15th St. S.E.
Calgary, Alberta
T2H 2H5

Re: Noise Monitoring for BLV Group – Stoney Trail #1

Dear Wes Markus;

Attached are results of the monitoring for the period September 2017 for noise, TSP and PM2.5 particulates. A B&K model 2236 meter was used for noise, and an Airmetrics Minivol model 5.0 for particulates. Winds were measured with a R.M. Young Model 5103 anemometer. Precipitation was recorded with a Texas Instruments model TE25M rain gauge.

Data recovery for all parameters was 100% during the monitoring period.

There was no exceedance for the sound level.

There were 3 exceedances for both TSP and PM2.5 of the Alberta Air Quality Objective.

Please call if there are any questions regarding the results.

Yours truly,

PROMET ENVIRONMENTAL GROUP LTD.

Dr. William (Bill) Murray
President

WM/NO
Cc: Travis Coates
Enc.



MONTHLY REPORT SUMMARY

Stoney Trail #1

BLV Group

Name/Location

Company

September 2017

Monitoring Period

Continuous Ambient Monitoring				
Parameter	% Time Operational	Average	Maximum	Number of Hours above Industrial Standards
Sound dB A	100%	59	72	0
PM2.5 $\mu\text{g}/\text{m}^3$	100%	47	81.2	3
TSP $\mu\text{g}/\text{m}^3$	100%	220.6	468.2	3
Wind Speed km/h	100%	11.5	30.1	-
Precipitation mm	100%	-	3.6	-
Trailer Temperature	100%	17	33	-

Sound level is analyzed only for wind speed less than 11 km/h and precipitation less than 3 mm/hour

COMMENTS:

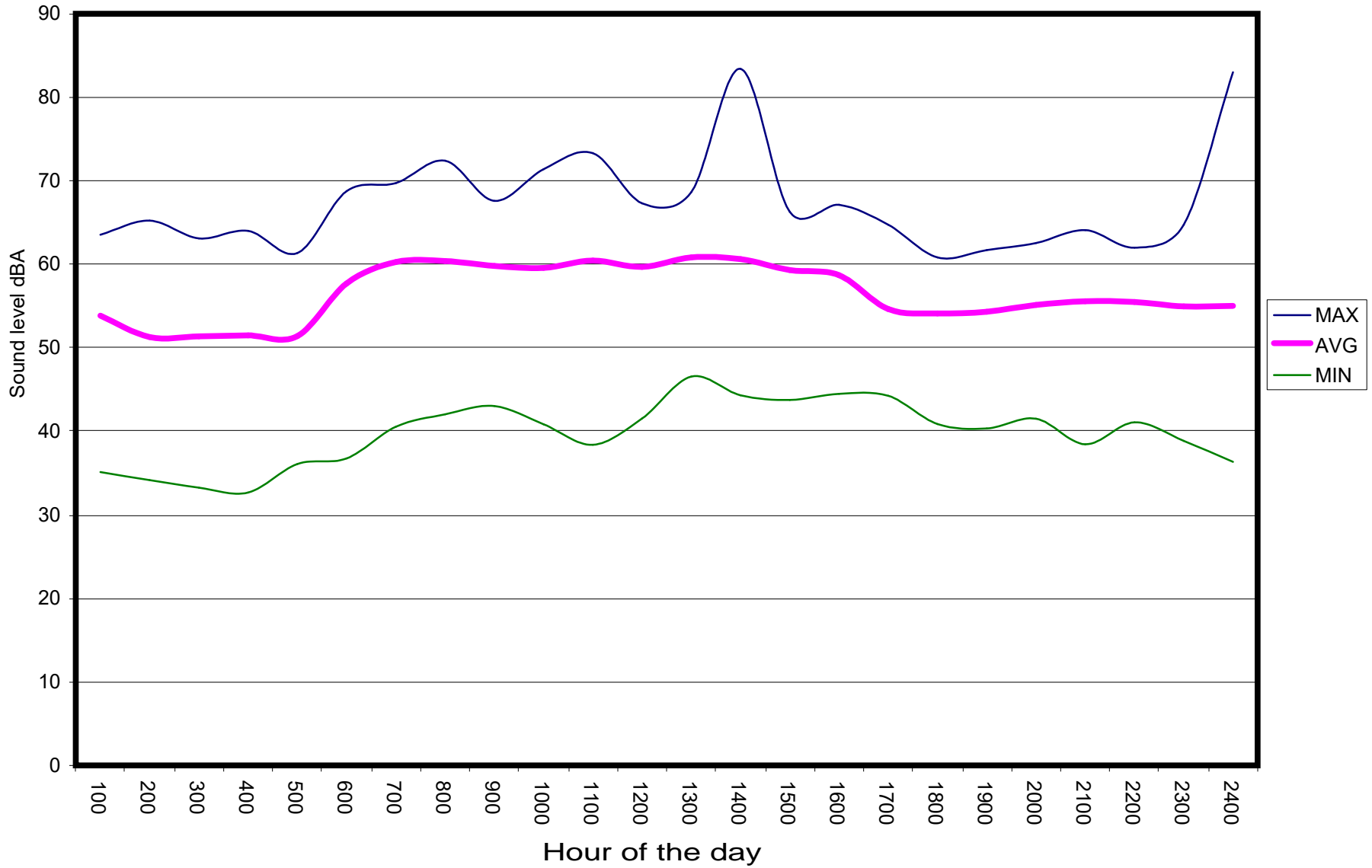
The regulation for industrial areas is 85 dB A any time.

The PM2.5 Standard is 30 $\mu\text{g}/\text{m}^3$ for the day.

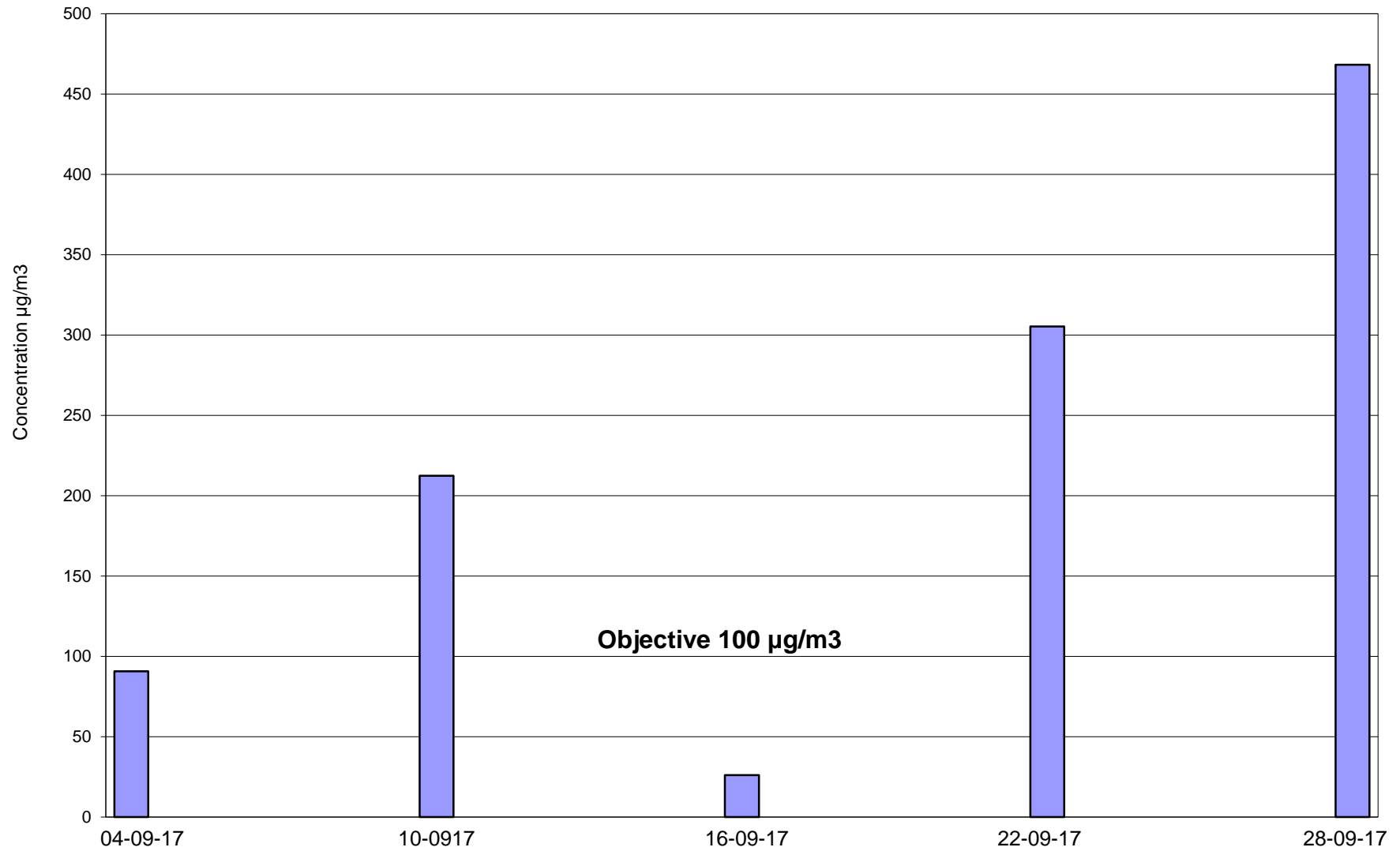
The TSP Objective is 100 $\mu\text{g}/\text{m}^3$ for the day.

One 24 hour sample of PM2.5 and TSP is taken every 6th day following the federal NAPS schedule.

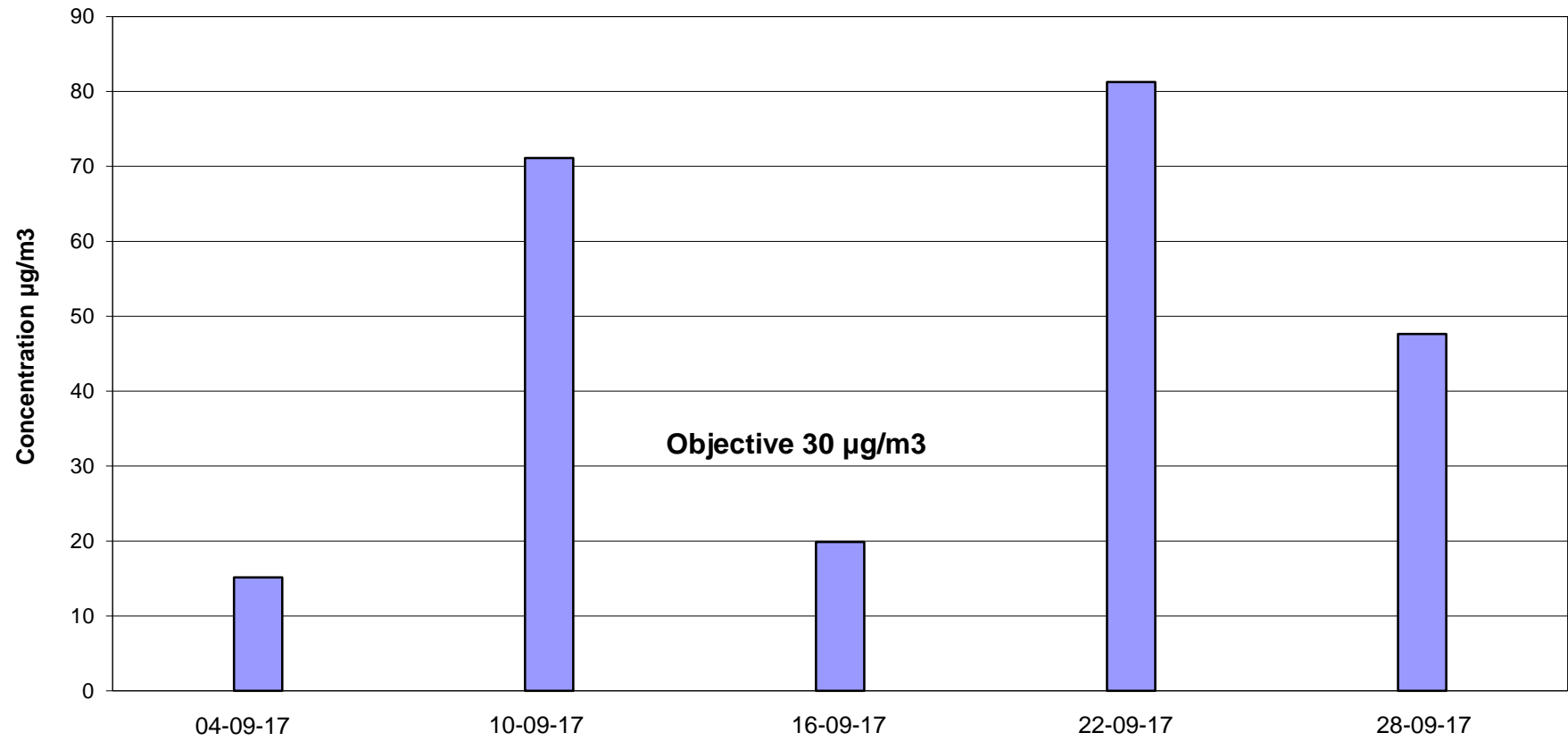
Sound Level by Hour of the Day



TSP at BLV Group Stoney Trail #1 September 2017

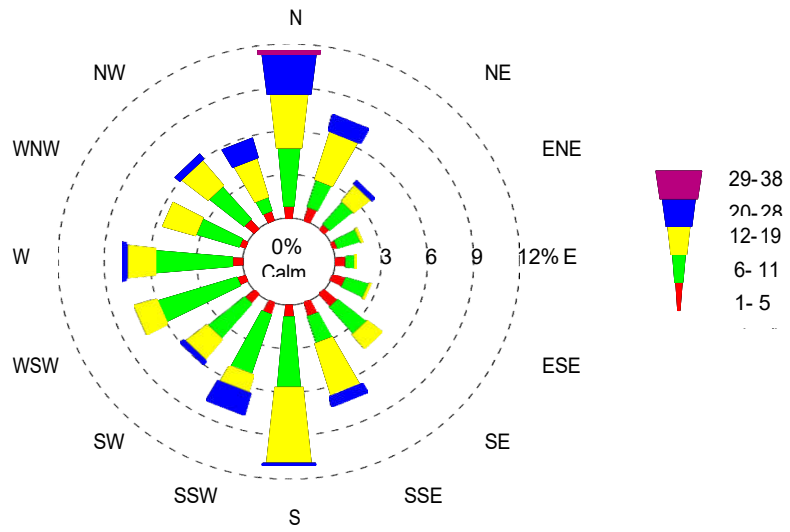


PM2.5 at BLV Group Stoney Trail #1 September 2017



Wind rose for SEP 2017
Stoney Trail 1

Bar length is proportional to frequency of winds from its direction



ABSTRACT OF THE WIND

BLV Group
Stoney Trail 1
STATION 620
SEP 2017

ALL TIMES ARE L.S.T.																										SPEED [km/h]					ANEMOMETER HEIGHT 10 m																					
HOUR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX	PREV	MISS																								
DAY																									SPD	VEL	DIR	OBS																								
1	NW	WSW	WSW	SW	SSW	SSE	S	S	S	S	SSE	S	SSE	S	W	NW	N	NNW	NNW	N	N	NNE	NNE	S			S	0																								
2	ESE	S	SW	SSW	S	SSE	SE	SE	S	SSW	S	S	SSE	WSW	SW	WSW	W	W	NW	N	N	N	N		10	20	S	0																								
3	NW	W	WSW	NNE	NE	ENE	ENE	ENE	ENE	NE	NE	NE	ENE	ENE	E	NE	NNE	NNE	N	W	W	WNW	W	WNW	9	27	ENE	0																								
4	W	W	WNW	CLM	N	N	NNE	NE	E	E	E	ESE	ESE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SSE	S		SE	0																								
5	S	S	SSW	SW	SW	WSW	W	SW	SW	SSW	S	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SW	SW		SSE	0																								
6	WSW	W	WNW	WNW	WNW	WNW	NW	NW	WNW	NW	SE	SE	SE	ESE	ESE	ENE	ESE	ENE	ESE	SE	SSE	S	SSW	SSW	8	11	WNW	0																								
7	S	SW	SW	W	WNW	WSW	WSW	W	WSWS	S	S	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	S	S	S	S	S			S	0																								
8	SSW	SW	WSW	W	W	WSW	W	NW	NNE	N	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	N	N	N	N	N			NNE	0																								
9	NNW	NNW	N	ESE	ESE	ESE	SE	S	S	S	S	S	S	S	W	NW	N	NNE	WNW	WNW	WSW	WSW	WSW	W			S	0																								
10	W	NW	WNW	NNW	NNE	N	WNW	WSW	W	W	WSW	W	W	WNW	WSW	WNW	WNW	WNW	NW	SE	SW	WSW	S			SVL	0																									
11	SSW	WSW	WSW	S	SSE	SSW	SW	S	W	WSW	SW	WSW	SSW	S	W	W	W	W	W	W	W	W	WSW	W			W	0																								
12	NNW	N	N	N	N	NNE	NE	ENE	E	ESE	SE	SE	SE	SE	ESE	NE	N	N	NNE	NNE	N	SE	S			N	0																									
13	S	S	S	S	S	SSE	S	SSW	W	NNW	NNW	N	N	N	N	N	N	N	N	N	N	N	N	N			N	0																								
14	N	N	N	N	N	N	N	NNE	NNE	NNE	N	SE	SSE	SSW	SSE	ESE	E	SE	S	SSW	NW	NNW	NW				N	0																								
15	NW	NNE	NNW	N	NNE	N	N	N	ENE	E	ESE	SSW	S	SSW	SE	SE	SSE	SSW	SSW	SSW	S	S	S			SVL	0																									
16	S	S	S	S	S	S	S	S	S	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SE	SE	ESE	ESE	SE	SSE		S	0																								
17	SSW	SSW	WSW	WSW	WSW	WSW	WSW	SWS	S	S	SSE	SSE	SSE	SSE	SSE	SSE	SE		S	SSW	SSW	WSW	WSW			SVL	0																									
18	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	M	M	WSW	W	W	W	NW	N	NNE	NE	NE	NE	NE	NE			WSW	2																									
19	NE	NE	NE	NNE	NE	NE	N	NE	N	WNW	WNW	M	NNW	NNW	NNW	NNW	N	N	NNW	NNW	NNW	NE	SSW	NNW			NNW	1																								
20	NW	NW	NW	NNW	NNW	NNW	N	ENE	ENE	NNW	NNW	W	NW	NNW	N	NE	NNE	NNE	N	N	N	N	NNE	NNE			N	0																								
21	N	N	N	N	NNW	NNW	NW	NW	NNW	NNW	N	N	N	N	NNE	NNE	N	N	NNE	N	N	N	NNE	NNE			N	0																								
22	NNE	N	NNE	NNE	NNE	NNEN	N	NNE	NE	NEE	E	SW	NNW	NNE	ESE	SE	SE	SSE	SSE	SSE	SSE	S					NNE	0																								
23	S	SSW	SW	SW	S	SSW	SW	WSW	SW	SW	SSW	SSW	SSW	SSW	SSW	S	S	S	S	SSW	SW	SW	SW			SVL	0																									
24	SW	WSW	WSW	WSW	W	WW	WNW	W	W	W	WSW	WSW	SSW	SSW	SSW	S	S	S	SSW	SW	SW	SW	SW			W	0																									
25	W	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW			NW	0																									
26	NNW	NNW	NNW	N	NNW	NNW	NNW	NNW	NNW	NNW	N	NE	NE	NE	NNW	NE	ESE	SE	SSE	SSW	SSW	WNW				NNW	0																									
27	WNW	WNW	WNW	WNW	NW	NW	NNW	NNW	N	NNE	WSW	WSW	WSW	SSW	SSW	S	SSE	SSE	S	S	SSW	SSW	S			SSW	0																									
28	SSW	SSW	SW	W	WNW	CLM	W	SW	WSW	SW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	S	SSW	SSW	SW	SW			SSW	0																								
29	WSW	W	WSW	W	W	WNW	WNW	NW	WNW	W	WSW	WSW	NNE	SW	WSW	SW	WSW	W	WNW	NW	NW	WNW	WNW			SVL	0																									
30	WNW	WNW	WNW	NW	NW	NW	N	NNE	NNE	NNE	NNE	NNE	NNW	ENE	NE	NE	NNW	N	NNE	NNE	NNE						NNE	0																								
MEAN																									11	10	10	10	9	9	9	9	10	12	12	12	13	13	13	14	14	14	13	11	11	12	12	12	11	30	N	3
NOTE:																									Missing data represented by M; no clear prevailing direction represented by SVL; calm winds represented by CALM																											
Date of Last Calibration																									060221 Make and Model of Instrument: RM Young5103																											

FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION

BLV Group
Stoney Trail 1
STATION 620
SEP 2017

SPEED [km/h]	WIND DIRECTION														TOTAL	PCT											
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW			NW	NNW									
< .5																										2	0
1- 5	6	7	3	2	5	6	8	7	6	6	6	4	5	3	6	5	85	12									
6- 11	29	14	14	11	4	11	17	14	35	31	22	39	36	21	21	7	326	45									
12- 19	27	25	10	1	1	1	9	27	38	9	13	11	14	16	16	20	238	33									
20- 28	20	8	2	0	0	0	0	5	1	11	2	0	2	0	3	10	64	9									
29- 38	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0									
TOTAL	84	54	29	14	10	18	34	53	80	57	43	54	57	40	46	42	717	100									
PERCENT	12	8	4	2	1	3	5	7	11	8	6	8	8	6	6	6											
AVERAGE	14	13	12	8	7	7	9	13	12	12	10	9	10	11	11	14	11										

SOUND LEVEL [dBA] Leq 1 hour
 BLV Group
 Stoney Trail 1
 STATION 620
 SEP 2017

Day	Hour																								Avg
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1	58	60	60	60	61	62	60				C			58	56					50	55	56	60	57	59
2	53	39	37	38	41	44	46	46	46	46	45							42	40	43					45
3	39	34	33	33	37	37	41	42	43	42	41	42	47						41	44	44	42	41	37	41
4	35	36	34	34	36	39	41	42	44	41	38	48	68	44	44	49					42	41	41		48
5			38	39	43	57	59	58	58	59									61	61	62	62	65	66	59
6	63	60	60	60	59	60	61	61	59	58	60	61	61	62	62	61	61	61	62	63	62	62	62	63	61
7	64	65	63	61	59	62	64	62	61	60															62
8		59	57	58	58	56	59	61	58										58	58	57	61	61	62	59
9	61	61	62	64	61	64	65	64	61								49	57			58	59			61
10		57	57		49	58	59	58	57	57								55	57	57	59	61	59	62	58
11	62	59	59	62	54	62	62	61														59	59	59	60
12					47	49	57	57														57	59	61	56
13					52	59	62	63	63	63															61
14	56	58		55			59	60	60	61	60	62	62	60	62	62	62	58	59	61	60	60	59	59	60
15	58	52	57	60	57	54	55	59	61	62	61	61	60						57	59	60	62	61		59
16	61																		48	48	45		45	43	51
17	40	37	38	37	39	43	58	59	57	54	57	57								42	38	42	39	36	50
18	38	36	35	36	46	60	62	62	62	61	61														57
19							61	60	60																59
20		49						67	67														57	57	
21																									64
22				45	49	62	64	63	64	62	65	65	64	66	63	63	57	61	59	58	63	59	59	57	M 61
23	59	56	57	54	57	64	67	65	65					59	55	53	58	53	58						60
24			54	53	48	60	60	62	63	63	63	63	63	62					51	56				53	60
25	55	54	55	52	52	64	67				67	65	66	65	64	64	52	52	58	59	60				61
26												67	69	67	64	67	53	51	56	60	59	57	57	57	62
27	57						67	66		66	65	66	66	66	65	66	54	54	57	60	59	57	57	56	63
28	56	57	57	59	58	66	70	72	66																64
29		57	58	59	58	65	69	68				66	66	65	64	63		59							63
30				57	57										62	63	55		56	59					59
AVG	57	56	56	56	54	60	62	62	61	59	60	62	64	63	62	62	56	57	56	58	58	58	58	58	58
MAX	64	65	63	64	61	66	70	72	67	66	67	67	69	67	65	67	62	61	62	63	63	62	65	66	
MIN	35	34	33	33	36	37	41	42	43	41	38	42	47	44	44	49	49	42	40	42	38	41	39	36	

*** SOUND DATA REPORTED ONLY FOR WIND SPEED < 11.5 KM/H *** C - Calibration

Monthly Average: 59 Monthly Maximum: 72 Monthly Minimum: 33
 Averages are computed only when time operational > 75%
 Median: 58.7

*** No Exceedances of Guideline ***
 SOUND METER CALIBRATIONS

DATE	TIME	STANDARD	RESPONSE	ERROR
SEP 1, 2017	10	94.0	94.2	.2

PRECIPITATION [mm]
 BLV Group
 Stoney Trail 1
 STATION 620
 SEP 2017

Day	Hour																								Tot	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	.2
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0
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	0	0
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
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
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	.6	.4	.2	0	0	.7	1.9
13	.3	0	0	0	0	0	0	0	.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.2
14	.3	0	0	0	0	0	.2	0	0	0	0	0	.4	0	0	0	0	0	0	0	0	0	0	0	0	1.3
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.6	3.1	.6	0	0	0	0	0	0	0	0	7.3
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
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
18	0	0	0	0	0	0	0	0	0	0	0	M	M	0	.2	0	0	0	0	0	0	0	0	0	0	.3
19	0	0	0	0	0	0	0	0	0	0	.2	M	0	0	0	0	0	0	0	0	0	0	0	0	.8	1.1
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	.2
21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	.5
22	0	0	0	0	0	0	0	0	.2	0	0	0	0	0	.3	.3	0	0	0	0	0	0	0	0	0	.8
23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTL	.6	0	0	0	0	0	.2	.2	.7	.3	.4	0	.5	0	4.1	3.4	.7	0	.8	.4	.2	.2	0	0	1.6	
MAX	.3	0	0	0	0	0	.2	0	.5	0	.2	0	.4	0	3.6	3.1	.6	0	.6	.4	.2	0	0	0	.8	

Monthly Total: 15 Maximum in an hour: 3.6
 Year to Date: 155

TRAILER TEMPERATURE
 BLV Group
 Stoney Trail 1
 STATION 620
 SEP 2017

Day	Hour																								Avg	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	13	12	11	11	10	10	10	12	15	17	21	23	25	26	28	29	30	29	27	23	19	17	15	14	19	
2	14	13	13	12	12	11	11	13	16	20	24	26	28	30	31	32	33	32	30	26	24	21	18	16	21	
3	14	13	12	12	11	11	11	13	15	17	18	18	19	21	23	23	19	16	14	13	12	11	11	11	15	
4	12	12	12	12	12	12	12	13	13	16	17	20	22	23	24	24	25	24	23	19	17	15	14	13	17	
5	12	12	11	10	9	8	8	11	15	18	19	22	23	25	26	27	28	27	24	22	19	17	16	16	18	
6	15	15	14	14	14	13	14	15	19	23	27	29	31	32	32	33	33	32	29	25	22	20	19	18	22	
7	17	17	16	15	14	13	13	14	17	21	24	26	28	28	29	30	30	29	27	25	23	22	21	21	22	
8	20	19	18	18	18	18	18	19	20	22	24	26	27	27	27	25	24	24	22	20	17	16	15	14	21	
9	13	12	12	11	11	11	10	11	14	18	21	23	25	25	26	26	24	23	23	21	18	16	15	15	18	
10	15	15	14	13	12	10	9	10	12	15	17	20	21	23	24	25	26	25	23	19	16	13	12	12	17	
11	12	12	13	12	11	10	11	13	15	18	20	22	24	25	27	27	27	27	27	24	22	20	19	19	19	
12	18	16	15	14	13	11	11	11	14	14	15	15	16	18	19	19	18	15	12	10	9	9	8	8	14	
13	8	8	8	8	8	8	8	8	8	8	8	8	8	7	7	7	7	7	7	6	6	6	5	5	7	
14	5	5	5	5	5	5	5	5	6	7	8	9	10	9	10	12	11	10	8	6	5	4	3	3	7	
15	3	2	1	1	1	1	2	3	4	6	8	9	10	9	7	8	8	8	7	5	5	4	4	4	5	
16	3	2	2	2	2	1	1	2	4	6	8	10	12	14	15	16	15	14	13	11	9	7	6	5	7	
17	4	3	3	3	3	3	2	4	8	11	14	16	18	18	18	19	18	18	16	14	12	10	9	8	11	
18	7	7	7	8	8	9	8	8	9	10	14	M	M	23	23	23	23	23	23	23	23	22	21	20	19	15
19	19	19	19	19	19	19	19	19	19	20	22	24	M	23	23	23	22	22	22	22	21	21	21	20	24	21
20	20	20	20	19	19	19	19	19	19	21	20	20	20	20	20	20	19	19	18	18	17	17	17	17	19	
21	17	17	17	17	17	17	17	18	18	18	17	17	17	17	17	17	17	17	16	16	16	16	16	16	17	
22	16	16	16	17	17	17	18	18	18	19	19	20	20	20	21	21	21	21	21	21	20	20	20	20	19	
23	20	19	19	18	18	18	18	18	19	19	19	20	20	20	20	21	21	21	21	21	20	20	20	20	20	
24	20	20	20	20	20	20	20	19	20	20	20	21	21	22	22	22	22	23	22	22	22	22	21	21		
25	21	21	21	21	21	20	20	20	20	20	21	21	22	23	23	24	24	24	24	24	24	24	23	23	22	
26	22	22	21	21	21	21	20	20	20	20	21	21	22	22	22	23	23	23	23	23	22	22	22	22	22	
27	21	21	21	21	21	21	20	20	20	21	21	22	23	23	23	24	24	24	24	24	24	24	23	23	22	
28	23	23	23	23	23	22	22	22	22	23	24	24	25	25	25	26	26	26	26	26	26	25	25	25	24	
29	24	24	23	22	22	21	21	21	21	22	22	23	24	24	25	25	25	25	25	25	25	25	24	24	23	
30	23	23	23	22	22	22	22	21	21	21	21	21	21	20	21	21	21	21	21	21	20	19	19	18	21	
AVG	15	15	14	14	14	13	13	14	15	17	19	20	21	21	22	22	22	22	21	19	18	17	16	16		
MAX	24	24	23	23	23	22	22	22	22	23	27	29	31	32	32	33	33	32	30	26	26	25	25	25		
MIN	3	2	1	1	1	1	1	2	4	6	8	8	8	7	7	7	7	7	7	5	5	4	3	3		

Monthly Average: 17 Monthly Maximum: 33 Monthly Minimum: 1