

Canstar Resources Inc.

MM-19-36

Project:	Buchans Mary March	Easting (NAD 27):	534369	Azimuth:	130	Core Size:	NQ	Date Started:	7-Jan-19
Drill Hole:	MM-19-36	Northing (NAD 27):	5408934	Dip:	-63	Logged by:	Bob Patey	Date Finished:	19-Jan-19
Location:		Elevation (masl):	207.333	Depth (m):	538.8	Drill Contractor:	Petro		

Downhole Tests: Flexit				
Depth	Dip	Azimuth	Magnetic Field	
11	-62.6	-81.33		
62	-61.9	-80.63		
113	-61.4	-80.13		
164	-61.3	-80.03		
215	-61.1	-79.83		
266	-60.5	-79.23		
317	-60.1	-78.83		
368	-59.9	-78.63	51820	
419	-59.6	-78.33	51360	
467	-59.1	-77.83	5159	
518	-58.7	-77.43	51420	

Comments: Same drill pad as MM-294-7,MM-294-8, MM-12-23, MM-13-29, MM-13-30. Casing left in.

Hole_ID	From_m	To_m	Lithology	Lithocode	Description	Alteration	Mineralization
MM-19-36 0	2		Overburden	OB			
MM-19-36 2.00	5.60		Dacite	D	Green Dacite, Hyaloclastic. Fragments with layered appearance wispy pumice?. Massive with no overall layering. Lt green pl xtls up to 3mm. Cut by hariline calcite veins. Thicker lt green veins with calcite cores. At 30-45 TCA.		
MM-19-36 5.60	12.50		Dacite	D	Dark grey fine grained dacite with slightly flattened calcite amygdulcs. UC has large blobs of calcite. Basal 50cm has clastic rubbly appearance (base of flow?) Brown iron carbonate stain on fractures. Hematite stain on fractures in last 50cm. Cut by similar calcite and lt green veins.		
MM-19-36 12.50	21.70		Dacite	D	Green Dacite, hyaloclastic. Fragments with layered appearance wispy pumice?. Mostly lithic fragments. Layering at ~45 TCA Lt green pl xtls up to 3mm. Cut by hariline calcite veins @ 30 TCA. Thicker qtz veins with pink fsp or hem stain and black rims at 80-70 TCA. LC gradational as overall colour darkens and more black flakey grains appear in the last 50cm. 15.0-15.5m fractures lined with graphite.		
MM-19-36 21.70	24.00			D	dk grey fg volcanoclastic with wispy layering pumice or ash? Qtz and cc filled lithophysae. And many veins. Lc sharp in broken cor.e		
MM-19-36 24.00	26.85		Rhyolite	Dch	light grey cherty rhyolite with qtz phenos (mostly <1mm but up to 4mm in places) many lt green epidote? Fractures with ass hematite stain and orange stain in the rock. LC sharp at 45-60 TCA		
MM-19-36 26.85	27.70			B	dk grey- black amygdaloidal basalt. Cc amygdoids and veins. Veins also have epidote. Qtz veins at 80-90 TCA LC sharp at 45-60 TCA		
MM-19-36 27.70	28.85			B	lt grey cherty rhyolite as above (24.0-26.85) darkens at base towards contact with green dacite volcanoclastic		
MM-19-36 28.85	31.30			B	green dacitic hyaloclastic one light orange calcite veins at 5 TCA.	chl rims on amy	
MM-19-36 31.30	34.00			B	amygdaloidal dk basalt		
MM-19-36 34.00	35.70			B	green dacitic volcanoclastic one light orange calcite vein at 5 TCA.		
MM-19-36 35.00	36.10			B	red-pink silicic rhyolite with fault gouge at base, top and internal surfaces.		
MM-19-36 36.10	42.60			B	section dominated by massive plum purple fragments of massiv silicic rock with interstices of green grey material. Clastic with some silicification of the matrix Some colour zonation towards contacts in the green material. (photo @39.8)	sil wk	
MM-19-36 42.60	49.50			B	green dacitic. Different texture of green blobs up to 2cm making up 80+% with darker material in between. Darker stuff is chloritic. goes to more typical wispy texture with some pinkish altered spots. Few spots of coarse calcite with associated orange harder mineral (fsp?). @ 47.4 an multi phase vein with orange layers photo. LC sharp at 45 TCA	chl week	
MM-19-36 49.50	59.70			B	volcanoclastic with exotic clasts and a green dacitic matrix. Top dominated by red-orange massive rhyolite clasts. Bedding where apparent is at 45 TCA. Cut by Qtz and calcite veins throughout. Clasts include amygdaloidal basalt, porphyritic rhyolite in colours of lt pink to lt grey. most clasts are 5cm range. 52.5-56 is largely clast free dacite. Graphite lined fractures at 56.3m. photo shows brecciation by dark veins, mostly not graphite but thin layers on some surfaces. one fleck of pyrite in a rhyolitic clast. from 56 on there are several small shears at 25-45 TCA up to 10cm thick, one has graphite.	chl, ser both week	
MM-19-36 59.70	62.00			B	light grey felsic fg hyaloclastic		
MM-19-36 62.00	65.50			B	grey int with zones of chl-ser alteration with strongly developed fabric interstitial to blocks of rel unaltered hyaloclasticly fragmented intermediate. With cc veins which are cut by the chl-ser alt. Some amygdaloidal basalt clasts with some cc with chl rim amys. in one instance these are have chl-ser alt.		
MM-19-36 65.50	66.50			B	fault gouge and broken core		

Hole_ID	From_m	To_m	Lithology	Lithocode	Description	Alteration	Mineralization
MM-19-36	66.50	121.70	Basalt	B	dominantly mafic volcanoclastic with clasts to 20cm+ hyaloclastic brecciation in places but clearly some real clasts. Dominant texture is one of small to 5cm felsic clasts, some amygdaloidal, clast supported with the matrix of similar material having minor alteration. Some red-pink porphyritic clasts, but they end by 75.8m. In places the fg matrix has chl-ser alteration producing a black and brown pattern. @ 108.1m is a 1*5cm clot of chalcopyrite. (sample 8794) looks like skidder. In places (eg 116m) lots of cc in the matrix. 101-104 some large light coloured rhyolite clasts (qtz phenos) some ser alt moderate. LC is a shear zone with quartz and graphite photo.		
MM-19-36	121.70	137.20	Basalt	B	Hyaloclastic mafic flows? matrix of mm scale plag & dark mins (chl) with pseudoclasts of amygdaloidal basalt. Basalt "clasts" are generally brown matrix with cc amys with chl rims, epidotized plag. All is cut by cc veins which increase towards bottom. Basal contact is fault gouge.		
MM-19-36	137.20	137.30	Basalt	B	fault gouge and broken core		
MM-19-36	137.3	187.75	Basalt	B	similar to above fault. Hyaloclastic mafic with amygdaloidal basalt pseudoclasts and a peppery plag and dark mafic mineral (chlorite?) matrix. Pseudoclasts range from dk-brown and orange to dark grey. Pseudoclasts vary with depth. 137.3-152 medium green grey with small phenos sometimes large <5mm amygdules with cc fill chl rims. chl in groundmass, pseudomorphing mafic phenos. 152-153 blocky broken core. 153-155.5 pseudoclasts orange altered with larger phenos. harder little calcite of chl. 155.5-175 pseudoclasts are dk brown groundmass with large 5mm epidotized plag and cc amys some with pink fsp, rare pink alt zoned on rims or pseudoclasts. Remainder is light green pseudoclasts. Lower part from 171.5 on is more disrupted. More calcite veins and clots 30-60 TCA. some qtz veins with black graphite? hairlines (172.7-172.8, 85 TCA, 176.94-176.99, 80TCA)	weak ser-chl	
MM-19-36	187.75	195.1	Basalt	B	Light green dyke or sill UC sharp @ 40 TCA with no clear chill margin. LC @ 30 TCA. Dyke is similar to clasts seen above. Lt pale green with max 2-3mm darker spots, soft pseudomorphs after phenos. No minz	ser?	
MM-19-36	195.5	196.38	Basalt	B	thin screen of hyaloclastite as above		
MM-19-36	196.38	199.42	Basalt	B	black mafic dyke magnetic KP=31. Chill margin at top remains black. At base chill margin is 30 cm of light colour.		
MM-19-36	199.42	205.36	Basalt	B	afic-int hyaloclastite with lt green-grey pseudoclasts. Amys and phenos. Cut by many qtz and cc veins at 20-45 TCA.		
MM-19-36	205.36	208.6	Basalt	B	Volcanoclastic with variable composition clasts. UC sharp at 40TCA. Clast comp dark clasts with cc amys, chl after phenos light green clasts with dark ser-after pl phenos. Sulphide in matrix, and clasts (primary in clasts), all py. Py more common in massive dark grey clasts. Silicification of matrix and clasts. one 30cm lt green clast (no sulphide)	sil med-strong	
MM-19-36	208.6	210.4	Diabase	Mb	mafic dyke with angular cc amygdules, sulphide seen in two of them (pyrite no Cu in XRF) lucoxene spots.		
MM-19-36	210.4	256.6	Basalt	B	mafic volcanoclastic hyaloclastite. Clasts have many cc amygdules, chl after phenos and on amy rims. Matrix a peppery black and white. Some wispy brown sericite alt. Calcite veins cut at various angles (229m, green flecks ass with calcite XRF ?). @225-226.6 have glassy lt-med grey clasts have fine py, possible flow banding. 1.5cm sulphide clast @ 228.4m (XRF 1300cu). @232.8 a Brecciated clast with pyrite lt grey grading to lt green. Last few m from 249 m have increasing flattening -shear. 256.4- more broken core with sericite lined fractures. 256.9m-silicified with up to 1% Py. silicification masking some of the flattening.		
MM-19-36	256.6	280.05	Basalt	B	Massive amygdaloidal basalt with little fabric UC 40 TCA. Manys .5cm, no chlorite rims. Trace specks py, @268.8-269.55m Light grey aphanitic dyke with strong thin chill margins contacts @ 20 TCA, encloses fragments of wall rock. Calcite veins throughout mostly thin some at low angles 0-20 TCA, most at <45. one strong set @ 267.8m brecciates at 90 TCA over 10cm of core. Colour becomes greenish at base. gradational contact		

Hole_ID	From_m	To_m	Lithology	Lithocode	Description	Alteration	Mineralization
MM-19-36	280.05	291.48	Basalt	B	Basaltic hyaloclasts. Weak fabric at 45 TCA. Hyaloclastic?. Some places have 1-3cm long light flecks, sericite with chl at core of some. More standard hyaloclastite with chunky 2-5cm+ hard pseudoclasts (unaltered or silicified) and a matrix of softer ser-ch altered material. Within 1m of LC minor amts of orange alteration seen. A layered hyaloclastite with 2-3cm pseudoclasts bedded at ~45 TCA dominates. light hard mod silicified matrix with chloritite pseudoclasts. bedding is weak in places where "clasts" are larger. Plag phenos occur in both matrix and clasts.		
MM-19-36	291.48	294.65	Diabase	Mb	Magnetic black dyke. Uc irregular avgs out to ~90 TCA, LC irregular 30 TCA Light coloured glassy chill margins.		
MM-19-36	294.65	297	Basalt	B	basaltic hyaloclastite as above dyke. 1.5m from dyke has orange tinting alteration.		
MM-19-36	297	300.75	Basalt	B	Amygdaloidal basalt flow (amys cc only up to 1cm) 297.75 1cm breccia vein with fine rock matrix cuts core at 10 tca. LC gradational		
MM-19-36	300.75	308.85	Basalt	B	Mafic hyaloclastite LC and UC have increased shearing. Little fabric at core.		
MM-19-36	308.85	314.5	Basalt	B	Amygdaloidal flow or sill similar to above, some broken areas @ 309.5 5cm sheared rock (may be sheared screen of host rock) 313.2-313.4 rubbly core.		
MM-19-36	314.5	320.4	Basalt	B	Basaltic hyaloclastite Strong sheared section @ 315.65-316.15 strong sericite alt at top. Sil-ser at bottom with green micas.		
MM-19-36	320.4	321.2	Basalt	B	Amygdaloidal dyke or sill. 1% diss py, more near contacts esp lower where cc veins parallel contact. LC at a 10 TCA with cc veins		diss py
MM-19-36	321.2	322.6	Basalt	B	Mafic Hyaloclastic lt groundmass with cc and darker angular pseudoclasts of green with darker rims, near UC diss py		py
MM-19-36	322.6	323.5	Basalt	B	Basaltic flow or sill		
MM-19-36	323.5	329	Basalt	B	Mafic Hyaloclastite. As above		
MM-19-36	329	331.35	Basalt	B	hyaloclastic volcanoclastic with heterogeneous clasts. Pinkish brown or grey porphyry with cc amygdules and qtz amygdules rimmed with chlorite. Also rare regular green-grey clasts, sericite alt, possible sil. Some orange specks (K alt?)		nil
MM-19-36	331.35	333.14	Basalt	B	mafic dyke UC sharp 45 TCA, LC irregular overall 30 TCA, rare cc veins common qtz epidote veins with pinkish qtz (cut cc veins		
MM-19-36	333.14	353.3	Basalt	B	mafic hyaloclastite with grey-brown to grey green porphyry pseudoclasts and peppery black and white matrix with calcite.		
MM-19-36	353.3		Basalt	B	mafic hyaloclastite with large 10cm+ grey green porphyry pseudoclasts and a chl-cc rich matrix. Occasional small shear s at 30-40 TCA accommodated in matrix mainly.	Sil Ser	
MM-19-36	356.13	358.2	Basalt	B	lt coloured alteration zone. Alteration occurs in same hyaloclastite as above and below, alt is strong sil + ser some minor calcite. Some shear bands within zone may represent the fluid pathways.		
MM-19-36	358.2	362.5	Basalt	B	mafic hyaloclastite as at 353.3m-. Varies to grey matrix with small pseudoclasts around 360m. And back to larger clast dominated at base where gradational change into an alteration zone.		
MM-19-36	362.5	363.6	Basalt	B	Alteration zone. Gradational contact at top and bottom has chl-cc matrix and lightning clasts. Core 30cm is light with qtz veins and sil flooding, minor wisps of ser.		
MM-19-36	363.6	374.5	Basalt	B	mafic hyaloclastite varying from peppery untextured matrix with clasts of med grey with chl amys and phenos? and cc amys, Rare clasts have orange qtz amys		chl
MM-19-36	374.5	384	Basalt	B	hematized pseudoclasts begin. Similar mafic as above but orange and red scoriaceous clasts are present	hem chl	
MM-19-36	384	393.4	Basalt	B	similar to above but epidote is common in matrix and fractures. 392-393.4 hem clasts reach 50%		
MM-19-36	393.4	396.1	Basalt	B	mafic hyaloclastite with grey clasts and shearing (no red-purple clasts) moderate fabric at 30 TCA. Epidote common.		
MM-19-36	396.1	399.5	Basalt	B	broken core similar to above epidote continues at 5-10%		
MM-19-36	399.5	401	Basalt	B	Basaltic VC with amygdaloidal clasts chl in matrix.		
MM-19-36	401	402.3	Basalt	B	basaltic rock with white and lavender calcite, black chl flakes and ser altered plag. In a dark grey matrix. Cut by white cc veins goes to		

Hole_ID	From_m	To_m	Lithology	Lithocode	Description	Alteration	Mineralization
MM-19-36	402.3	404.67	Basalt	B	VC with felsic fragments some glassy. Thin shear bands within VC 30-45 TCA seams with py up to 5mm wide.	ser sil	py
MM-19-36	404.67	412.9	Basalt	B	basalt flows with chl flecks green sericitized plag calcite fractures trace pyt up to 1mm. Paired qtz and calcite veins at 406.8-406.9 and 408-408.1, 40TCA, dirty qtz above, thinner lavender calcite below. 422.55-423.5	ser chl	py tr
MM-19-36	412.9	426.58	Basalt	B	Basaltic VC including Some fragments of felsic rock (409.4-409.5, 420.7-421.1, 425.1, 425.65, 425.8) and sections that look more felsic. Occasional pyrite veins some in cc veins. Bedding at 35-40 TCA LC with felsic tuff @ 35-40 TCA	chl ser	py tr
MM-19-36	426.58	438.95	Felsic Volc	D	felsic volc dacite with ser alt. 1-5% py minor sil alt, some qtz phenos preserved. Yellow-green to grey color perlitic text in places. Minor pyrite up to 5% overall 1-2%. Little base metals max XRF spot 1200ppm Zn. Well developed fol'n throughout 40-70 TCA. cm sacel fault gouge @ 429.3 & 431.2 at 40 TCA and 70 TCA	ser sil	Py 2%
MM-19-36	438.95	439.3	Diabase dyke	Mb	Lt grey dyke, non magnetc. (all chill margin)		nil
MM-19-36	439.3	436	Felsic Volc	D	Dacite as above dyke. Monotonous Lt grey with strong fol'n. Lt grey sericitized bulk cut by many darker grey zones where py can occur. XRF max = 2000 ppm zn 300 Pb	ser sil	py 3%
MM-19-36	436	437.1	Felsic Volc	D	Black and green felsic. Hard green sil altered sections separated by 2-10cm black chloritic sections. Py resides in chloritic. LC goes from green grey fragment to pink in <10cm	sil-chl	py 5%
MM-19-36	437.1	437.72	Felsic Volc	D	Salmon pink and buff coloured coarsely fractured rock (rhyolite) fractures roughly parallel foliation in adjacent units, Fractures are soft ser with some sulphides (XRF max 5000 ppm Cu, 4500 ppm Zn), LC shart dyke contact		py 5%
MM-19-36	437.72	438.02	Diabase dyke	Mb	Lt grey dyke, non magnetc. (all chill margin) UC 40 TCA LC 45 TCA		
MM-19-36	438.02	440.3	Felsic volc	D	light grey and pale green felsic with strong fol'n sericitized groundmass cut by fract with py and chl. Minor sil, 440m 30 cm of tan porphyritic rock w few fractures forms lower contact	ser sil chl	py 3%
MM-19-36	440.3	443.1	Felsic volc	D	green and black similar to above, gets fragmental / perlitic towarded 443. LC sharp contact lied with chlorite	chl	py 7%
MM-19-36	443.1	444.46	Felsic volc	D	Salmon pink and buff coloured coarsely fractured rock (rhyolite) fractures roughly parallel foliation in adjacent units, Fractures are soft ser with some sulphides (XRF max 5000 ppm Cu, 4500 ppm Zn), LC shart dyke contact	ser	py 3%
MM-19-36	444.46	447.9	Felsic volc	D	remnant pseudofragments of pink to cream fg porphyry gone to sericite along fractures. Possible sil alt of fragments, pyrite in fractures. LC fore very roken and fault gouge above dyke. 50cm of gougey core.	strong ser	py 3%
MM-19-36	447.9	454.5	Diabase dyke	Mb	1m chill margins Lt grey going to dark-brown-black at core strongly magnetic core K=40		
MM-19-36	454.5	455	Felsic volc	D	screen of pink glassy felsic with ser fractures		
MM-19-36	455	456.8	Diabase dyke	Mb	Lt grey dyke, non magnetc. (all chill margin)		
MM-19-36	456.8	465.6	Felsic volc	D	lt green grey felsic with weak fol'n. some shear bands sericite strong, Perlitic and hyaloclastic brecciation. qtz stringers with py, gn, sph, gn. XRF spot max 15% Zn		stringers w py, gn, sp, rare cp
MM-19-36	465.6	466.36		D	disrupted flow banding some base metal stringers		Py, sp, gn
MM-19-36	466.36	468.5		D	pinkish porphyry fragmented		
MM-19-36	468.5	477.5		D	dark green (darker than 456.8-465.6) some fg hyaloclastic texture		
MM-19-36	477.5	484.2		D	strong planar fabric @ 80-90 TCA, flow banding +shear? Lt and dark grey with larger regions (pseudoclasts?) of cream to pink tinged with concentric alteration halos. Wispy pyrite in dark "matrix"		
MM-19-36	484.2	484.3	fault gouge	Flt	2 1cm fault gouge with 8cm between		
MM-19-36	484.3	484.7		D	flow banded at 80-90 TCA		12
MM-19-36	484.7	485.7		D	perlitic with 10% py in matrix no base metals		5
MM-19-36	485.7	490.9		D	Hyaloclastic with weak "bedding" at 70 TCA, 1-3mm chlorite flecks in bottom.		5
MM-19-36	490.9	495.7		D	pale green and grey with wisps of waxy strong sericite alt and pyrite patches, strong planar fabric @45 TCA.		10
MM-19-36	495.7	496.78		D	banded cream and waxy green felsic with minor pyrite (mod ser alt)		3

Hole_ID	From_m	To_m	Lithology	Lithocode	Description	Alteration	Mineralization
MM-19-36	496.78	496.87			Fault Gouge		
MM-19-36	496.87	506.5		D	Pale green and grey as at 495.7 going to green and grey flattened hyaloclastic fabric with some waxy green sericite.		5
MM-19-36	506.5	513.5		D	mod ser and sil altered felsic some layers of siltstone at 507.6-508.1, 509.3-509.7, large patches of granular pyrite, black fault gouge at 508.3-508.35		15
MM-19-36	513.5	521.75	Cherty Rhyolite	Dch	cherty massive flow with many patches of granular pyrite, wispy disseminated pyrite. Dark grey in colour with lightening by alteration. A few black veins with minor barite (xrf 3000ppm BA <100 Pb & Zn), late cutting everything. some flecks of altered phenos. wispy fabric defined by alteration any py at 10 TCA. LC gradational to flow banded base of flow. Litho sample	sil	15
MM-19-36	521.75	525.6	Cherty Rhyolite	Dch	flow banded felsic flow base. angle of banding gradually changes from 40 TCA at top to 10 TCA at base. UC gradational banding at 40 TCA. LC 10 TCA sheared and strongly sericitized		10
MM-19-36	525.6	533.5		Dv	hyalocalstic breccia (<1cm grain size) cream to lt grey cores with a matrix of dk grey to black, matrix soft =mod sericite alt. perlitic fractureing in places, bands of shearing in matrix at low <15 TCA. Pyrite in matrix rare larger "clasts" with porphyritic appearange, one w perlitic fract & py. A few late qv. LC at 10 TCA		3
MM-19-36	533.5	538.8		Dv	cream coloured felsic flow with hyaloclasite and sericite alt. Hyaloclasit dominates top 2m some flow banding in lower part. Moderate waxy Sericite alt and pyrite throughout (5% py overall)		5
	533.5	538.8		Dv	cream coloured felsic flow with hyaloclasite and sericite alt. Hyaloclasit dominates top 2m some flow banding in lower part. Moderate waxy Sericite alt and pyrite throughout (5% py overall)		5