

MAP NO.: ASSESSMENT REPORT X
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CONFIDENTIAL X
OPEN FILE

DOCUMENT NO: 092553
MINING DISTRICT: Whitehorse
TYPE OF WORK: DIAMOND DRILLING

REPORT FILED UNDER: Peso Silver Mines Ltd

DATE PERFORMED: January-December 1968

DATE FILED: 1968

LOCATION: LAT.: 62°03'N

AREA: Mt Nansen

LONG.: 137°09'W

VALUE \$:

CLAIM NAME & NO.: MT NANSEN PROPERTY

WORK DONE BY: D.D. Campbell

WORK DONE FOR: Peso Silver Mines Ltd

DATE TO GOOD STANDING:

REMARKS: # 40 MT NANSEN

Diamond drilling work in 1966 included 121.9 m drifting along the WEBBER vein, 243.8 m of drifting on the HUESTIS # 13 and # 40 underground drillholes in the BROWN-McDADE zone. Reserves were increased to 120 036 tonnes grading 16.6 g/t Au and 684.8 g/t Ag.

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INTRODUCTION

On November 10, 1965, the writer submitted a review report covering all of the Peso holdings in the Yukon Territory, Canada. Subsequently, from January, 1966, until the present, some further underground development has been done at the Mt. Nansen properties, the results of which have been sufficiently significant to warrant inclusion in the review report. A summary of these recent results is presented in this addendum. No revised maps are given in this addendum but in the text the revisions are described with reference to the pertinent maps in the November 10 report.

The new development work at Mt. Nansen consisted of: Webber; about 400 feet of driving alongside No. 2 Vein, with crosscuts and test holes into it, some flat drilling and two deep holes. Huestis: about 800 feet of drifting and driving on No. 13 Vein and its subsidiary structures, with test holes, as well as considerable exploratory diamond drilling on the adit level. Also one deep hole was drilled to intersect the best ore zone on No. 12 Vein at a depth of 360 feet below the adit level. Brown-McDade; about 40 short diamond drill holes were drilled into the walls of the adit level to test the extensions of the orebodies mapped in the drifts.

All of the details of this development are recorded in the mine plans and files, and the significant results are presented here.

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SUMMARY

WEBBER:

Since January, 1966, driving and crosscutting north on No. 2 Vein, together with limited flat drilling, have outlined with more certainty the 145 Orebody which had previously only been indicated by drill holes and surface exposures. In addition, 100 feet of new drive and drift south on No. 1 Vein added some new proven ore and took the heading through the south cross fault to a station for future drilling.

The change in ore reserves by this work, from the November report, are as follows:

	<u>Au</u>	<u>Ag</u>	<u>Tons</u>
Proven:	0.41	23.6	30,305
Probable:	0.40	20.3	54,975
	0.403	21.5	<u>85,280 tons</u>

In contrast to 73,450 tons in November at approximately the same grade.

The lateral development of the previously drilled ore on No. 2 Vein revealed a greater length of wider vein than had been anticipated from the earlier diamond drilling.

HUESTIS:

Driving and drifting on No. 13 Vein have proven ore previously included as "drill indicated" and indicates that the vein should be further explored to the north by drilling. One drill hole to the west intersected three new veins one of which, No. 14 Vein, has been included in the ore reserves. Extensive drilling from the north 12 heading has revealed a length of 400 feet of new ore-bearing No. 12 Vein, part of which was included in the No. 13 Vein reserves in the November report. The drill intersections have been precisely correlated with samples taken from surface trenches 200 feet above the adit.

The most important development at Mt. Nansen has been the diamond drill intersection at the Huestis of the No. 12 Vein below the high grade 615-617 ore shoot in the adit drift. This intersection is 360 feet vertically below the level and indicates

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a strong vein structure assaying 0.48 oz/t. Au, 9.8 oz/t. Ag across 5 ft. true width. This intersection, approximately 550 feet below the surface, lends great importance to the likelihood of depth continuity of the ore of not only the Huestis but also of the other structures in the area.

The net change in the Huestis ore reserves is as follows:

	<u>Au</u>	<u>Ag</u>	<u>Tons</u>
Proven:	0.60	15.3	8765
Probable:	0.64	15.9	38270
Possible	-	-	41000 (Drill indicated)
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	0.63	15.88	<u>88,035 tons</u>

In contrast to 46,615 tons in November @ 0.46 Au and 16.0 Ag.

The depth and lateral potential of the Huestis ore structures has been considerably enhanced by the recent work.

BROWN-McDADE:

Limited drilling in the Brown-McDade adit confirmed earlier figures on ore reserves but did not alter them.

GENERAL:

The recent underground development at the Mt. Nansen properties, although relatively limited in extent, has resulted in the following overall increases in the ore reserves:

	<u>Au(oz/t.)</u>	<u>Ag(oz/t.)</u>	<u>Value/ton</u>	<u>Tons</u>	<u>Category</u>
1965	0.417	19.8	\$43.12	120,065	Proven, probable & drill indicated
1966	0.484	19.49	\$45.20	132,315	Proven and probable
	-	-	-	<u>41,000</u>	Possible (drill indicated)
				<hr style="width: 100%; border: 0.5px solid black;"/>	
				173,315	<u>tons</u>

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The above reserves could support a 200/ton day mill for 3 years, producing 1.33 million ounces of silver per year as well as the gold. The net profit would be \$1.7 million. Since this does not include Brown-McDade nor consider the undetermined and as yet unlimited potential of all of the deposits it is evident that a profitable mine can probably be operated now at Mt. Nansen Mines; however, further development will very likely indicate enough ore to suggest that a larger mill rate than 200 tons/day would be optimum.

WEBBER VEIN ZONESNO. 1 VEIN:

South: The drift heading at the south end of the No. 1 Vein was driven through the main south fault and extended a length of 150 feet into the hanging wall side of the fault to a position suitable as a station from which to explore for the faulted portion of the vein. The vein continued from the previous drift face to the main fault, a distance of ten feet, as a strong well mineralized structure that is sharply sheared off at the fault. At the fault the vein averages 0.39 oz Au and 50.0 oz Ag across a width of 4 feet.

North: From a northern extension of the No. 2 Vein drive two down holes were drilled northeastward to intersect No. 1 Vein below the adit level at the downward projection of the 107 Orebody. One hole, AD18, was designed to intersect the zone at a depth of 250 feet below the level and the other, AD 17, at a depth of 400 feet below the level.

Unfortunately, the deepest hole was in blocky, hard rhyolite porphyry throughout most of its length and had to be abandoned just short of its target because of caving. The upper hole passed through a wide barren alteration-vein zone at 250-300 feet from the collar and this was interpreted to be the No. 1 Vein. Since the camp was closing down for break-up the hole was stopped. Subsequent logging and plotting indicated that this zone is too far west to be No. 1 Vein but rather correlates with a similar zone intersected in the deeper hole vertically below. To miss the ends of the drill holes No. 1 Zone must steepen from 70° at the level to about 80° below the level. Such fluctuations in dip between 70° and vertical are common in all exposures of the Webber vein zones.

NO. 2 VEIN:

From the drift face of November, 1965, on No. 2 Vein the heading was driven a length of 220 feet to the westnorthwest to expose the vein in the area wherein an ore intersection had been obtained from drill hole AD2 (160 ft. from the November face). Unfortunately, because of branching vein structures and inexperienced geological direction, this heading was driven 5 - 10 feet off the vein

for a length of 220 feet. The vein was subsequently tested along this length by four stub crosscuts and intervening test holes drilled at 5 ft. intervals. Three separate sections of ore have been proven by the crosscuts, slashing and some test holes, these are:

	<u>Length (ft.)</u>	<u>Width (ft.)</u>	<u>Au (oz/t.)</u>	<u>Ag(oz/t.)</u>	<u>Value</u>
South end	30	3	0.37	5.3	\$21.10
Middle	65	4	0.53	3.4	\$67.20
North end	15	5	0.30	6.0	\$19.40

The intervals between the above sections consist of three sections, 40 ft., 45 ft. and 25 ft. which have not been properly tested but in which drill and test holes indicate the existence of possible ore values in the vein. This whole section requires complete exposure by drifting to properly ascertain its value, but it is evident that the 145 Orebody, (Fig. 5 in Nov. Report), not only exists, but is much more extensive than anticipated from earlier drilling.

At the 220 ft. point of the above drive the fault that displaced the No. 1 Vein 107 Orebody was intersected and cut No. 2 Vein off sharply. A drill hole (AD 14) was drilled on the other side of this fault and intersected the faulted portion of No. 2 Vein at a distance of 80 feet beyond the fault. This intersection assayed 1.02 oz Au/ton and 24 oz Ag/ton across 3.5 feet. Presumably, the interval between the fault and this intersection is probably ore since the vein was ore at the fault. With this extension of the 220 ft. length it appears that the 145 Orebody is at least 300 feet in length, possibly with barren intervals in the untested portions.

Because of the incomplete and irregular sample coverage by crosscuts and drill holes of the 145 Orebody along this level, it is not possible to assign a firm value to the ore, therefore the writer has simply averaged all intersections, crosscuts and drill holes, along the 300 ft. length and designated the material as "Probable" ore. This is the same categorization as shown in the November report but the tonnage and grade have been increased appreciably and the "probability" of the ore more fully proven. The new average of this ore is:

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	<u>Length (ft.)</u>	<u>Width (ft.)</u>	<u>Au(oz/t.)</u>	<u>Ag(oz/t.)</u>	<u>Value/t.</u>
145 Orebody	300	4	.48	15.4	\$39.50

The No. 2 Vein heading was driven a distance of 150 feet westnorthwest to provide the station from which the No. 2 Vein 107 Orebody was drilled.

RECOMMENDATIONS:

1. The 220 ft. length of No. 2 Vein that has been cut by crosscuts will have to be completely exposed by drifting.

2. The displaced portion of No. 2 Vein, to the northwest will need to be further drilled to determine its exact position, and then drifted. Its depth extension can be drilled from the present heading.

3. If possible the two deep holes should be deepened under the 107 Orebody on No. 1 Vein to further establish its depth potential. In addition a shallower hole should be drilled to intersect the Vein at about 150 feet below the level, in 107 Orebody.

4. Two diamond drill holes should be drilled northeast and southwest from the south end of the No. 1 Vein heading to locate the displaced portion of No. 1 Vein south of the fault.

RESULTS:

The ore reserve figures given in Table 1, page 17-18 November report, should be adjusted to include the results of the recent work as follows: (Changes are underlined.)

<u>Vein</u>	<u>Orebody</u>	<u>Width</u>	<u>Length</u>	<u>Height</u>	<u>Au</u>	<u>Ag</u>	<u>Value</u>	<u>Tons</u>	<u>Category</u>
2N	145	<u>4</u>	<u>330</u>	180	<u>0.48</u>	<u>15.4</u>	<u>39.50</u>	<u>19,000</u>	Probable
1AS	136	<u>5</u>	<u>130</u>	60	<u>0.67</u>	<u>43.5</u>	<u>85.50</u>	<u>3,370</u>	Proven
1AS	136	<u>5</u>	<u>130</u>	60	<u>0.67</u>	<u>43.5</u>	<u>85.50</u>	<u>3,370</u>	Probable

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These changes result in the following increases in the Webber total ore reserves as shown on page 18, November report.

	<u>Au</u>	<u>Ag</u>	<u>Tons</u>
<u>Proven</u>	0.41	23.6	30305
<u>Probable</u>	0.40	20.3	54975
	0.403	21.5	<u>85280 tons.</u>

@ \$45.00/ton gross value. -

In contrast to: 73,450 tons in November, 1965 @ gross value of \$45.60/ton.

CONCLUSIONS:

The most encouraging and significant result of the limited amount of work done on the Webber property since January 1, 1966, is the lateral development of the previously drilled ore on No. 2 Vein, which although incomplete, revealed a greater length of wider and richer vein than had been anticipated by the earlier diamond drilling. Generally, this has been the case in the Webber vein zones, with development exposures showing better results than drill indications. This suggests that drill hole intersections should be weighted very carefully for their significance in guiding development and assessing ore reserves. It also indicates that proving up of the "probable" category of ore in this deposit results either confirmation or betterment of that category.

HUESTIS VEIN ZONESNO. 13 VEIN:

South: From the main crosscut intersection of No. 13 Vein a drift was driven 260 feet to the south. The vein structure in this section is strong but broken into several imbricate branches. The dominant quartz vein was drifted and proved persistent and locally fairly well mineralized with sulphides; however, no significant ore sections were exposed. Two sections, 100 feet in total length, returned submarginal average values of about 0.25 oz/t. Au and 2.0 oz/t. Ag across a 3 ft. width. This low grade material (\$10-\$15/ton) is not included in the ore reserves but may signal the occurrence of better values above or below the level. No ore had been included in the reserves from this section in the November report therefore there is no change in the reserve figures as a result of this work.

North: North of the main crosscut the No. 13 Vein Zone branches with strong vein structures curving off to the east. One such structure, intersected at the crosscut, was followed by the drift for about 300 feet to the north where it tailed off as a barren fracture. For the first 200 feet north of the crosscut this vein was strong and fairly well mineralized and actually returned a length of 120 feet of marginal ore assaying 0.20 oz/ton Au and 5 oz/ton Ag across 2.5 feet. This low grade material (\$12.50/ton) has not been included as ore reserves but it may become mill feed with the anticipated increase in the price of silver in 1967-68.

Drilling and testholes into the walls of the above drift revealed that the 13 Vein structure lay 10-20 feet southwest of the drift, with its junction with the drifted branch occurring about 20 feet south of the crosscut. The main vein was then exposed by a crosscut 140 ft. north of the crosscut and drifted northward for a length of 130 feet. Of this drift 65 feet returned average ore values of 0.43 oz/ton Au and 15.9 oz/ton Ag across a width of 5 feet, with the south face in ore and 140 feet to be drifted back to the crosscut. The north face of this drift is in strong vein structure but the values are not ore. The vein to the north can be readily explored by drill holes from the 12 Vein drift.

The ore exposed on the 13 Vein is wider and higher in grade than that included

in the November report ore reserves although only 130 feet of the anticipated length of 380 feet has been entirely explored. The November reserves included this vein as 15,800 tons of drill indicated ore only, not proven or probable. In view of the fact that the 13 Vein structure has now been partially drifted and two of the earlier drill intersections have now been found to occur on another (12 Vein) structure the entire category of drill indicated must be revised from the figures presented in Table 2, page 22, November report. The 13 Vein portion of these revised reserves is:

		<u>Length</u>	<u>Width</u>	<u>Height</u>	<u>Au</u>	<u>Ag</u>	<u>Tons</u>
(Drift)	Proven Ore	65	5	60	.43	15.9	1560
(above and below drift)	Probable Ore	65	5	60	.43	15.9	<u>1560</u>
	(New Ore) -						<u>3120</u> tons

NO. 12 VEIN:

The work on 12 Vein since January has consisted entirely of drilling, the results of which have revealed two very significant features. The most important of these is the intersection of ore on this vein at depth, but also encouraging is the revelation of the persistent extension of the vein northward with all intersections being in ore, for a total length of 500 feet. These features are discussed separately below.

DEPTH EXTENSION: A diamond drill hole, H22, was collared at the northern end of the 13 Vein drive and drilled downward at -40° to intersect 12 Vein directly below the best orebody, 615, at a depth of 360 feet below the level. An extremely wide and well mineralized vein zone was intersected 360 feet directly below the drift. Of this zone 10 feet are comprised of vein consisting of white and smoky quartz and

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massive sphalerite, arsenopyrite, pyrite and coarse galena (not encountered in the drift above). The assays of this intersection are:

Sulphide - 2.5 feet (true)	0.94 oz Au/ton	19.52 oz Ag/ton
Quartz - 7.5 feet (true)	0.03 oz Au/ton	0.44 oz Ag/ton

This represents a mining width grade of:

5 feet (as in drift above) @ 0.48 oz Au, 9.76 oz Ag for a value of \$31.40.

The most significant feature of this intersection is the proof of the existence of the vein zone as a strong and well mineralized structure 360 feet below the drifted ore and 500 feet below the surface. The persistence of good ore values to that depth adds encouraging corroboration to the earlier postulated depth potential of the deposit being at least 1000 feet, not only for this vein but for all the district structure of which 12 Vein is but one member of a system.

The effect of this intersection on the firm ore reserves is of course simply that of one drill hole, a block of ore centred on the intersection and extending 30 feet horizontally and vertically from the hole to give a block 60 feet square. In this case:

$$\frac{60 \times 60 \times 5}{12.5} = \underline{1440} \text{ tons of probable ore}$$

@ 0.48 Au and 9.76 Ag/ton.

However, the implications of this drill intersection on the ore reserves is very considerable. Because the intersection is on a strong vein structure directly below that drifted on the adit level, and because the mineralization is essentially the same as that in the vein on the level it is reasonable to assume that it is the same structure as that on the level and may well be the same ore shoot. Thus, on this presumption, if the Huestis 615-617 Orebodies are extended downward, which is nearly vertical, to 40 feet below this drill hole intersection the tonnage of this one section is increased from the previously calculated 16,310 proven-probable tons to a tonnage of 41,910 tons of proven-probable and drill indicated ore. Of course this will have to be confirmed by further deep drilling but the chances of

confirmation are excellent, judging from the ore intersection already obtained. Also, the planning of lower levels for production purposes is considerably insured and the potential for further depth extension is greatly enhanced.

LEVEL DRILLING: Drifting on the 12 Vein structure northward from the 617 Orebody in 1965 encountered a splaying out of the vein zone where the zone passed through the rhyolite porphyry plug. After a considerable jog to the east a vein was encountered north of the plug and followed for a length of 500 feet to the northwest along which 70 feet of low grade ore was developed. The heading was finally stopped after some 200 feet of barren vein had been exposed. In recent closely spaced flat drilling southwestward from this drift, north of the porphyry, it has been found that the stronger member of the No. 12 Vein actually continues on a straight projection from the 617 Orebody, through the intersection shown in H13 on Fig. 7 of the November report. Three evenly spaced holes intersected this vein to a distance of 340 feet northwest on strike from H13. Core recovery was generally less than 50% within the vein zone but the assays of the material recovered is:

	<u>Width(ft.)</u>	<u>Au/oz/t.</u>	<u>Ag(oz/t.)</u>	
H13	3	0.78	1.5	Sludge
H21	2	0.48	3.44	Core
H16	3	0.70	5.12	Core
H20	4	0.80	6.22	Core
Ave.	3	0.72	4.05 @ \$32.30/ton gross.	

This vein is open to the northwest while to the southeast in the porphyry, it was intersected as barren vein in holes H15 and H8. In view of the fact that the richest known ore shoots at both the Webber and the Huestis are located adjacent to rhyolite porphyry bodies, then the prospects of a rich shoot occurring on this vein northwest of the Huestis porphyry, in the vicinity of H13, are good.

Each of the above four holes lies directly below a surface bulldozer trench.

Within each of these four trenches a strong vein is exposed more or less vertically over the drill intersection 200 feet below. The grades of the samples cut in these trenches are:

<u>Trench</u>	<u>Width(ft.)</u>	<u>Au(oz/t.)</u>	<u>Ag(oz/t.)</u>	<u>Drill Hole 200' below</u>
206	4.0	0.30	10.1	H13
205	4.0	1.19	73.0	H21
204	4.0	.64	21.3	H16
202	4.6	0.62	23.7	H20
Ave.	4	0.71	32.9 @ \$72.30	

In view of the excellent continuity between surface trenches as well as between the adit drill holes 200 feet below it is reasonable to include the ore in the reserves as "probable-drill indicated" for 60 feet below the surface and 30 feet above and below the adit level. The intervening 110 feet can be classed as "possible". This vein is now designated as No. 12 Vein, whereas the branch to the east is designated as No. 12E Vein (628 Orebody). The reserves introduced here for this portion of No. 12 Vein are new but they will eliminate the drill indicated reserves included as No. 13 Vein North in Table 2 of the November report.

The new reserves for No. 12 Vein are:

	<u>Length(ft.)</u>	<u>Width(ft.)</u>	<u>Height</u>	<u>Au</u>	<u>Ag</u>	<u>Tons</u>	<u>Category</u>
Surface	400	4	60	0.71	32.9	7700	Probable
Underground	400	3	60	0.72	4.05	5780	Probable
			Total:	0.714	20.5	13,480	Probable
Drill indicated	400	3.5	110			<u>15,400</u>	tons Possible

OTHER VEINS:

Drill hole #12 was recently extended westward from the

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end of the main crosscut for a length of 470 feet. Three veins were intersected as follows:

<u>Footage</u>	<u>Width</u>	<u>Au(oz/t.)</u>	<u>Ag(oz/t.)</u>	
140	4	0.70	5.1	50% core recovered
260	3	0.30	7.7	40% core recovered
330	5	-	-	15% core recovered

Only the first intersection has been included in the new ore reserves but all veins deserve further attention and their presence indicates the good potential of the area for the finding of new ore vein structures.

The ore indicated by the first intersection is $4 \times 60 \times 60 / 12.5 =$

1150 tons, probable, @ 0.70 Au and 5.1 Ag.

RECOMMENDATIONS:

1. No. 13 Vein North should be drifted from the main crosscut north to the ore section in the stub drift.

2. The northern extension of No. 13 Vein should be explored by one or two holes from the north end of the present drive as well as by extension of existing holes from 12N Drift.

3. The three veins indicated in drill hole #12, west of No. 13 Vein, should be explored by drilling from 13 Drift.

4. Additional deep holes should be drilled to further block out the 615-617 Orebodies below the level.

5. The newly located No. 12 Vein North should be drifted northwest from the north side of the porphyry plug. This vein should also be explored above and below the level by drilling from 12E North Drift.

RESULTS:

The ore reserve figures given in Table 2, page 22 November report, should be adjusted to include the results of the recent work as follows:

<u>No. 12 Vein:</u>	<u>Add:</u>	<u>Au</u>	<u>Ag</u>	<u>Tons</u>	<u>Category</u>
Drill hole H22 (down hole)		0.48	9.76	1440	Probable
Northern extension (surface & underground)		0.71	20.5	13480	Probable
<u>No. 13 Vein:</u>					
Delete all items shown in Table 2 					
	<u>Add:</u>	<u>Au</u>	<u>Ag</u>	<u>Tons</u>	<u>Category</u>
North of crosscut		0.43	15.9	1560	Proven
North of crosscut		0.43	15.9	1560	Probable
<u>No. 14 Vein:</u>					
		<u>Au</u>	<u>Ag</u>	<u>Tons</u>	<u>Category</u>
DH H 12		0.70	5.1	1150	Probable

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These changes result in the following changes to the total ore reserves at the Huestis:

	<u>Au</u>	<u>Ag</u>	<u>Tons</u>
<u>Proven</u>	0.60	15.3	8765
<u>Probable</u>	0.64	15.9	38270
	<u>0.63</u>	<u>15.88</u>	<u>47035 tons.</u>

@ \$45.50/ton gross value.

In contrast to: 46,615 tons in November, 1965, @ a gross value of \$39.40/ton.

In addition, there is now the inclusion of an appreciable tonnage of possible ore on No. 12 Vein below the level to DH H22 and above the level on the north extension, both at approximate reserve grade.

<u>Possible:</u>	615-617 Orebodies	-	25,600 tons
	North Extension	-	<u>15,400</u>
	Total:	-	<u>41,000 tons.</u>

for a total indicated reserve of 88,000 tons.

CONCLUSIONS:

The two most encouraging and significant results of the work done on the Huestis property since January 1, 1966 are:

1. Establishment of the depth continuity of the vein structure and, because it is orebearing in the deep hole intersection, the potential for ore to a depth of at

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least 600 feet below surface is established, with no indication yet of bottoming. This greatly enhances the potential not only of the Huestis but of all the vein structure in the area and further substantiates the earlier postulated extension to a depth of at least 1000 feet for the Mt. Nansen ore.

2. The location by further drilling of the main northern extension of No. 12 Vein and the determination that it appears to be ore-bearing for at least 400 feet of length over a vertical interval of at least 200 feet from the level to the surface. The ore potential of this structure, as well as No. 13 and No. 14 Veins to the west could be considerable and still remains to be explored.

BROWN McDADE

The program for reassessment of the Brown-McDade deposit was barely begun before it was discontinued because of the transfer of equipment to the Webber-Huestis operations; however, 40 short diamond drill holes were drilled into the walls from the adit drift to test the vein zones that were disclosed by the recent remapping and resampling. The results do not materially alter the information on Brown-McDade reserves presented in the November report, (page 25), but they do indicate targets for the next phase of exploration on the property.

RESULTS OF RECENT DRILLING:

One drill hole across the 1N Orebody north of the crosscut returned an intersection of the width and grade earlier assigned to this orebody and confirmed its continuity.

Eight holes into the 2N Orebody confirmed the grade, size and approximate location as proposed in the earlier work.

Three drill holes on the northern extension of the 2N Orebody have indicated that the zone is occupied to the end of the present workings by a rhyolite porphyry dike along which are neither vein materials nor values but beside which lies the main fault gouge.

Seven holes into the west wall of the drift north of 2N Orebody revealed the expected decrease in size of the alteration-vein zone in that direction. In addition two of these holes confirmed the width and general grade of the 3N orebody, en echelon with the north end of 2N Orebody and 20 feet west of it. This orebody is presently included as probable ore but it requires considerably more development to prove up.

The No. 1S Orebody remains unchanged.

Seven drill holes indicate a new orebody, No. 2S, along the main fault

150 ft. south of the crosscut. Because core recoveries were very low the grades cannot be assumed as precise but the data from the drilling is as follows:

	<u>Length</u>	<u>Width</u>	<u>Au(oz/t.)</u>	<u>Ag(oz/t.)</u>
<u>2S Orebody</u>	170 ft.	9 ft.	0.20	10

Three drill holes 100 feet north of the 2S Orebody, along the main fault, indicate a possible small orebody, as follows:

	<u>Length</u>	<u>Width</u>	<u>Au(oz/t.)</u>	<u>Ag(oz/t.)</u>
<u>3S Orebody</u>	90 ft.	6 ft.	0.30	5 (Approx)

Finally, one hole ahead of the south face indicates a possible section in and ahead of the face with comparable values to the 3S Orebody. This possible orebody has been designated 4S. The orebody designated as 3S in the November report is now designated 7S.

It is worthy to note that generally throughout the underground work at Brown-McDade the grades of the orebodies as exposed in the drifts are consistently and appreciably higher than those obtained from diamond drilling. This is probably largely due to the excessively high core loss in this vein zone.

RECOMMENDATIONS:

The following orebodies should be exposed by drifts from the present workings:

2N - 100 ft.

3N - 100 ft.

2S - 150 ft.

3S - 80 ft.

4S - Continue the drift and drive southward for at least 1000 ft.

20.

Raises should be driven to the surface, after intermediate drilling, on orebodies 1N and possibly 2S, with later subdrifting to establish the continuity and grade of the orebodies.

GENERAL CONCLUSIONS

The underground development done on the Mt. Nansen since January 1, 1966, has been significant in that it has added appreciable tonnage to the ore reserves even though the amount of work done was very limited. In all of the underground development done at Mt. Nansen to date new ore has been indicated or proven with no limits established in the distribution of orebodies or the continuity of the ore structures either laterally or at depth. The excellent intersection returned by the deep hole drilled on the Huestis property strongly suggests continuity of ore to a depth of at least 600 feet below surface on the main Huestis structure and implies that comparable depth potential can be expected on the Webber and the Brown-McDade structures. Thus the potential of the deposits remains excellent and no geological limits have yet been determined for the ore structures or the orebodies in them.

The changes in ore reserves of the Mt. Nansen properties from November, 1965, are as follows:

	<u>1965</u>			<u>1966</u>			
	<u>Tons</u>	<u>Au(oz/t.)</u>	<u>Ag(oz/t.)</u>	<u>Tons</u>	<u>Au(oz/t.)</u>	<u>Ag(oz/t.)</u>	<u>Category</u>
<u>Webber:</u>	30065	0.41	23.6	30305	0.41	23.6	Proven
	<u>43385</u>	<u>0.38</u>	<u>21.4</u>	<u>54975</u>	<u>0.40</u>	<u>20.3</u>	Probable
	<u>73450</u>	<u>0.39</u>	<u>22.3</u>	<u>85280</u>	<u>0.403</u>	<u>21.5</u>	
<u>Huestis:</u>	7205	0.63	15.2	8765	0.60	15.3	Proven
	20640	0.61	13.9	38270	0.64	15.9	Probable
	<u>18770</u>	<u>0.26</u>	<u>18.5</u>				Drill Indicated
	<u>46615</u>	<u>0.46</u>	<u>16.0</u>	<u>47035</u>	<u>0.63</u>	<u>15.88</u>	
TOTALS:	<u>120,065</u>	<u>0.417</u>	<u>19.8</u>	<u>132,315</u>	<u>0.484</u>	<u>19.49</u>	
(Huestis)				<u>41,000</u>	-	-	Possible Ore
				<u>173,315</u>	tons		
Gross Value/ton	<u>\$43.12</u>			<u>\$45.20</u>			

There are no changes to the Brown-McDade reserves.

The foregoing reserves, although not entirely proven, are sufficiently well assured, to themselves support a 200 ton/day mill for 3 years. If total costs are estimated to be (conservatively) \$25 per ton such an operation would result in a net profit of approximately \$3.5 million. It is evident from these figures that the Mt. Nansen deposits, even without Brown-McDade or more ore in the other zones, very definitely warrants continued development. With Brown-McDade an increased life to the mill is assured.

A 200 ton/day operation as suggested above would produce 1.33 million ounces of silver per year. An increase in the price of silver from \$1.40 per ounce to \$2.20 per ounce, as expected in 1968, would mean an increase in profit of about \$1,000,000 over and above the foregoing figures.

Respectfully submitted,

A handwritten signature in cursive script, reading "Douglas D. Campbell". The signature is written in dark ink and is positioned above the typed name.

Douglas D. Campbell, PhD., P. Eng.

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