**SYSTEMS EXPLORATION (NSW) PTY LIMITED**

Postal Address:  Box 6001, Dural Delivery Centre, NSW, 2158

Telephone: (02) 4579 1183:  Fax: (02) 4579 1290

**Table  1**

Project:  07/2017

Date: 17.02.17

**STUDY**_Pacific Minerals Ltd_____

**TECHNIQUES**_Hard Rock Special_____

**REFERENCE**__Barrie Bolton_____

one (1) slab with one-third cpy dominant sulphide (at one end and two-thirds silica dolomite at other end)

| SAMPLES | MESOSCALE PHYSICAL PROPERTIES (LAB.) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| one (1) slab | | | | | | galvanic resistivity | 1 kHz | ohm m |
| dol. sed + sulphide at one end | Density | Porosity | | mag k | air dry axial | air dry cross core | sat. axial | sat. cross core |
| | g/cc | % | | SIx10$^{-5}$ | | | | |
| Whole Core | 3.20 | 0.2 | | 28 | 6878 | 11564 | 1586 | 1920 |
| | porosity low so air dry | | | | both sulphide and silica dolomite | silica dolomite only | | |
| | oven dry, and sat. | | | | | | | |
| | densities are similar | | | | | | | |

cpy
sulphide section
only

◆  EM cond = 29 S/m approx only owing to non circular geometry

◆  DC galvanic res. = 0.02 ohm m -> 50 S/m galv. cond.

the sulphide is only moderately conductive

IP effect
axial
whole core

◆  IP equivalent chargeability = 5 ms

there is no internal polarisation in conductive massive sulphides only external pol. at edges contacting the country rock which here has only 0.2%   porosity for pore/crack fluid access to the sulphide surface

Sat. = vacuum saturated with fresh water ($\rho_w$ = 50 ohm m 25$^o$C)

The sulphide is traversed by fractures and bits of black shale mainly across the core axis; the silica dolomite is traversed by veinlets and fractures across and subparallel to the core axis ➔ directional dependent cond./res.  The sulphide is estimated to have a density of about 4.2 g/cc, if the silica dolomite density is assumed to be 2.75 g/cc.