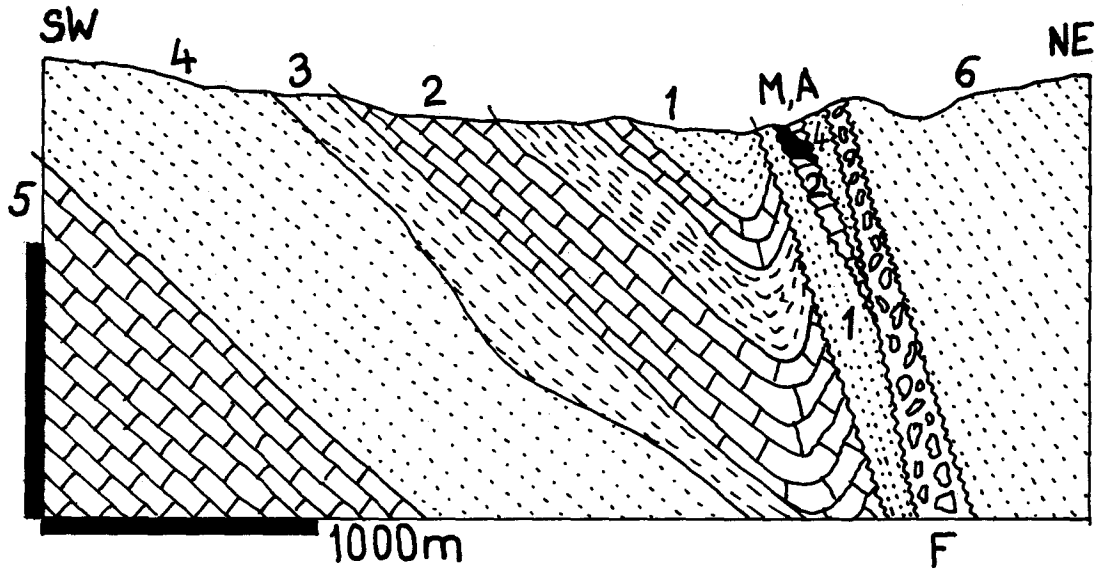
DM-LITHOTHEQUE Adelaide "Geosyncline", South Australia; Flinders Ranges

2528 AROONA willemite deposit-Zn 1, Copley area



Aroona diagrammatic cross-section; Peter Laznicka (2001), modified after Thomson et al. (1976)

LT 2528 LEGEND

Unit No	Unit Description
M	Irregular body of aphanitic, brecciated, hematite-pigmented willemite with bands, veinlets, breccia cement of metacolloform, recrystallized willemite and calcite, replacing and infilling tectonic block of dolomitized Ajax Limestone bounded by thrust planes; breccia-cementing and fracture-coating later stage Mn hydro-oxides and hetaerolite (Zn manganate) and coronadite (Pb manganate)
F	Heterolithologic diapir and fault breccia; tectonized Ajax dolomite and adjacent units
A	Altered and recrystallized host rocks: dolomitized + hematite-pigmented limestone breccia; silicified carbonates (jasperoid)
1	Cm2 Lake Frome Group (e.g. Billy Creek, Moodlatana, Aroona Creek Fms.): siltstone, sandstone, limestone
2	Cm1 Hawker Group, carbonates (Ajax Limestone)
3	Ditto, shale & sandstone (Uratanna Fm.)
4	Np-Cm1 (~590-540 Ma) Wilpena Group, Pound Subgroup: quartzite
5	Ditto, Wonoka Fm., limestone and shale
6	Np (~800 Ma) Burra Group, Copley Quartzite

LT 2528 SAMPLE DESCRIPTION (collected and assembled by Peter Laznicka, 2001)

Unit No	Sample Description	Sample No
M	Very fine grained ("amorphous"), hematite-pigmented massive willemite, fractured to brecciated; thin white veinlets of later crystalline willemite	1-3
	Thin bands of metacolloform, crystalline white willemite in massive red willemite	4, 5
	Highest grade (35-40% Zn) ore: white crystalline willemite bands, breccia cement, crustification textures; minor coarse calcite	6-10
	Black Zn-Pb manganates: hetaerolite, coronadite	11-13
A of 2	Coarse crystalline calcite: local gangue to willemite ore and recrystallization product of Ajax Limestone	14
2+3	Dolomitized and silicified limestone	15
	Sheared siltstone	16
F	Breccia of Mn hydro-oxide impregnated "black shale" ? fragments in quartz, willemite network	17, 18
1	Moodlatana brown micaceous sandstone	19
6	Copley Quartzite	20