



HYDROGEOLOGY OF THE PINE CREEK MINING REGION

Black numbered lines are 20000 metre intervals of the Map Grid of Australia (MGA), Zones 52 & 53
Transverse Mercator Projection - Longitude of Origin 132°
Horizontal Datum: GDA 94 Vertical Datum: AHD (metres)

HYDROGEOLOGY

The yield figures shown for each unit are for bore with appropriate location & construction. Fractured and weathered rocks are usually prospective for groundwater only in the upper 80m and of low permeability at greater depth.

POROUS SEDIMENTARY ROCK - AQUIFER

- yield 0.05 to 0.5 L/s

	Sandstone, siltstone, conglomerate	Cretaceous undifferentiated	K
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FRACTURED & KARSTIC ROCKS - EXTENSIVE AQUIFERS

- yield >15 L/s

	Dolomitic sandy limestone	Dolloo Limestone	Dlo		Limestone & siltstone	Tindall Limestone	Cml
	Zone of high yield in Tindall Limestone				Limestone, siltstone, shale	Jinduckin Formation	Colj

FRACTURED ROCKS - LOCAL AQUIFERS

- yield 0.5 to 5 L/s

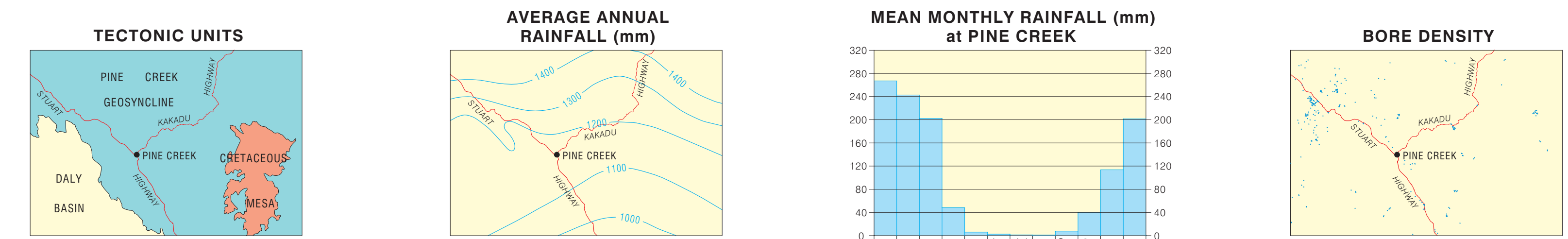
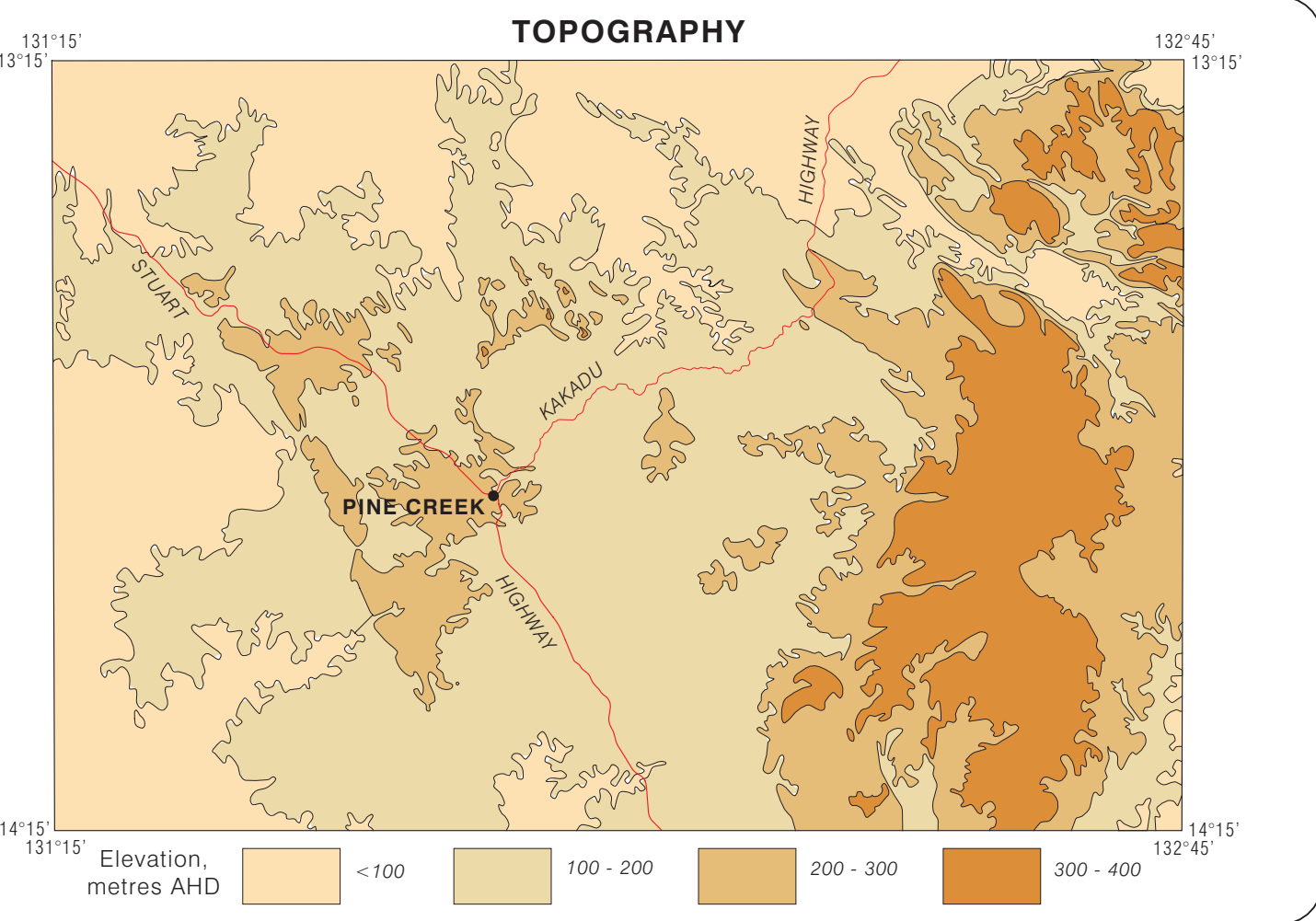
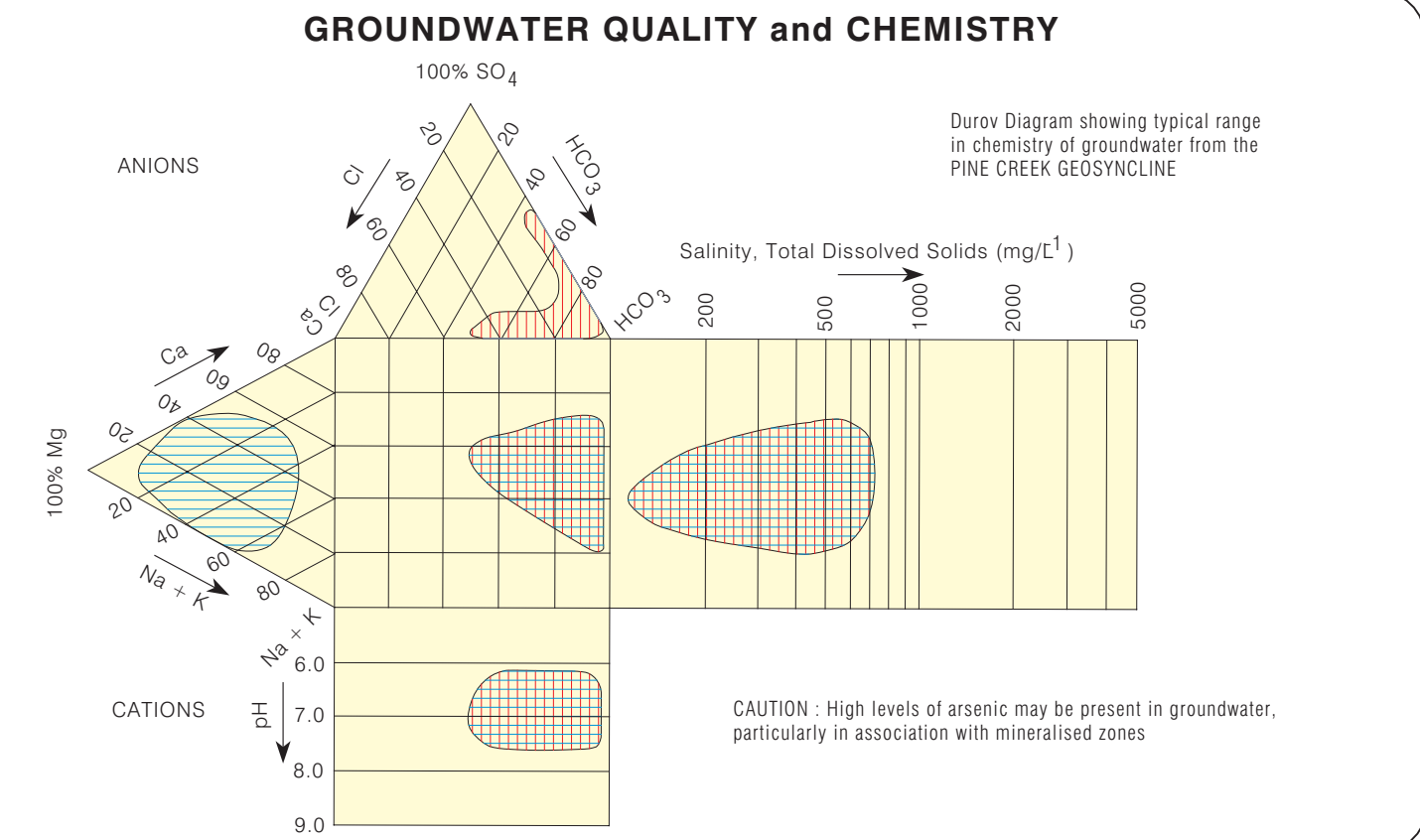
	Mixed sedimentary & volcanic rocks	El Sharana Group	Eb		Cherty tuff, tuffaceous greywacke	Gerowie Tuff	Esg
	Siltstone, chert, shale, tuff	Mount Bonnie & Koolpin Formations	Eso Etk		Sandstone	Mundagie Sandstone	Epm

FRACTURED & WEATHERED ROCKS WITH MINOR GROUNDWATER RESOURCES

- yield usually 0.05 to 0.5 L/s in water bearing zones

	Sandstone, minor siltstone	Tolmer Group	Et		Granite	Cullen Batholith	Eg
	Sandstone	Kombolgie Formation	Etk		Dolerite & granophyre	Zama Dolerite & Gopelli Dolerite	Etd Edo
	Andesite, basalt	Kombolgie Formation Volcanic Members	Etm Etb		Greywacke, siltstone, shale, quartzite	Burrell Creek Formation	Etb
	Syenite, acid volcanics	Plum Tree Volcanics	Eew Eep		Siltstone, minor greywacke	Wildman Sandstone	Egw
	Greywacke	Kurrundie Sandstone	Eek		Volcanic breccia, andesite, tuff shale	Slag Creek Volcanics	Ees
					Greywacke, sandstone	Masson Formation	Eem

SYMBOLS	
CADASTRAL FEATURES	SURFACE WATER FEATURES
..... Town / Community	 Perennial or ephemeral watercourse
..... Property boundary	 Surface water catchment divide
..... Municipal boundary	 Perennial water hole
..... National park boundary	 Sinkhole
..... Highway	 Perennial pool
..... Secondary road	 Land subject to inundation
..... Minor road	 Dam, capacity >50 ML
..... Airfield	
..... Buildings	
..... Gas pipeline	
..... Railway under construction	
GEOLOGICAL FEATURES	ARTIFICIAL FEATURES
..... Geological boundary	 Bore, yield >15.0 L/s
..... Fault	 Bore, yield 5.0 - 15.0 L/s
..... Shear zone	 Bore, yield 0.5 - 5.0 L/s
..... Quartz vein	 Bore, yield 0.05 - 0.5 L/s
..... Anticline	 Area of openpit mining affecting groundwater
..... Syncline	 Stream gauging station
..... Overturned fold	 Rainfall gauging station
..... Line of cross-section	 Alluvial mine
GROUNDWATER FEATURES	 Open pit mine, abandoned
..... Water table contour, m A.H.D.	 Underground mine
..... Groundwater flow line	 Underground mine, abandoned
..... Spring	



Hydrogeology by R. J. McGowan, Dames and Moore Pty. Ltd. July 1989.

Project coordination by P. Jolly. Cartography by L. Fritz. Spatial Data and Mapping, using Microstation graphic applications. Design File: Pine-Ck-Mining-Hydrogeol-TM84.dgn. Plot File: Pine-Ck-Mining-Reg-Hydrogeology.plt.

Minor revisions, corrections and updates to mapping have been made since the initial publication of this map (July 1989). Cadastral boundaries have also been added. This map takes account of data to August 2002.

Geology modified from base maps of the Northern Territory Geological Survey.

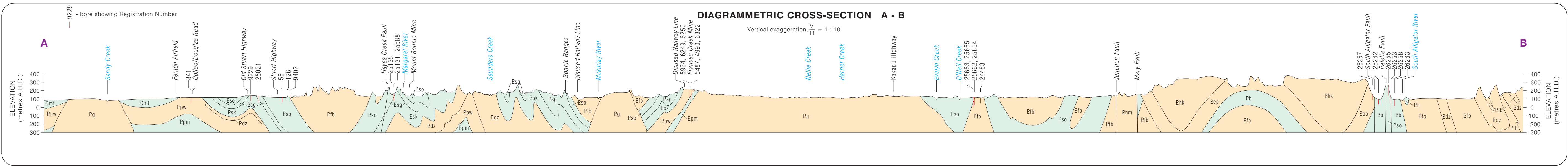
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MAP LOCALITY & 1:250 000 SHEET INDEX

INDEX TO ADJOINING SHEETS	
DARWIN SD 52-04	MILINGIMBI SD 53-02
ALLIGATOR RIVER SD 53-01	
PINE CREEK SD 52-08	MT. EVELYN SD 53-05
MT. EVELYN SD 53-05	MOUNT MARIUMBA SD 53-06
FERGUSSON RIVER SD 52-12	KATHERINE SD 53-09
	URAPINGA SD 53-10

DAMES & MOORE

Northern Territory Government
Department of Infrastructure, Planning and Environment