FIRST ANNUAL REPORT ON EXPLORATION LICENCE 5338 NORTHERN TERRITORY

R.A.Meade
July 1990

BIBLIOGRAPHICAL DATA SHEET

ORGANISATION : GEOPEKO (A DIVISION OF PEKO EXPLORATION LTD.)

PROSPECT 1 : DALY RIVER , EL 5338

PROSPECT 2 :

TITLE : FIRST ANNUAL REPORT ON EXPLORATION LICENCE 5338, NORTHERN TERRITORY

REPORT NUMBER : NT90/13 S **MF CODE :**

AUTHOR 1 : MEADE **INITIALS :** R.A.
AUTHOR 2 : **INITIALS :**

PLACE OF PUB'N : DARWIN , N.T. **DATE OF PUB'N :** JULY 1990

PAGES : 19 **FIGURES :** 7 **APPENDICES :** **PLANS :** 5

SUBJECT 1 : EXPEN/REP **COMMODIDTIES:** Au,Cu,Pb,Zn,Ag,

SUBJECT 2 : AU/CU/PB/ZN/AG/MS/VOLC

LOCALITY : DALY RIVER, N.T.

1:250,000 map Names/Nos. : PINE CREEK SD 52/8
1:100,000 map Names/Nos. : DALY RIVER 5070

ABSTRACT (200 WORDS OR LESS)

ABSTRACT

Geopeko (A Division of Peko Exploration Ltd) and Suttons Motors Pty Ltd were granted N.T. Exploration Licence 5338 on 12th May 1989.

This lease totalling 39 sq.km. (12 graticular blocks) encompasses a north-south trending stratigraphic sequence containing acid marine volcanics of Lower Proterozoic age known to host Cu-Pb-Zn-Ag mineralisation.

Previous exploration has identified numerous Zn-rich massive sulphide lenses within EL 5337. One such lens at Anomaly A has a reported drill proven resource of 540,000t containing 6.6% Zn, 2.2% Cu, 0.3% Pb, and 19ppm Ag (Berger 1973).

The Daly River Copper Mine was the largest operation in the Daly River Mineral Field with reported production statistics of 5200 tonnes @ 28.0%-38.75% Cu.

Geopeko's exploration efforts to date have included airborne and ground geophysics re-analysis of previous exploration data.

As a result of this work it is recommended that detailed ground follow-up work be carried out during the next tenure year.

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1. INTRODUCTION

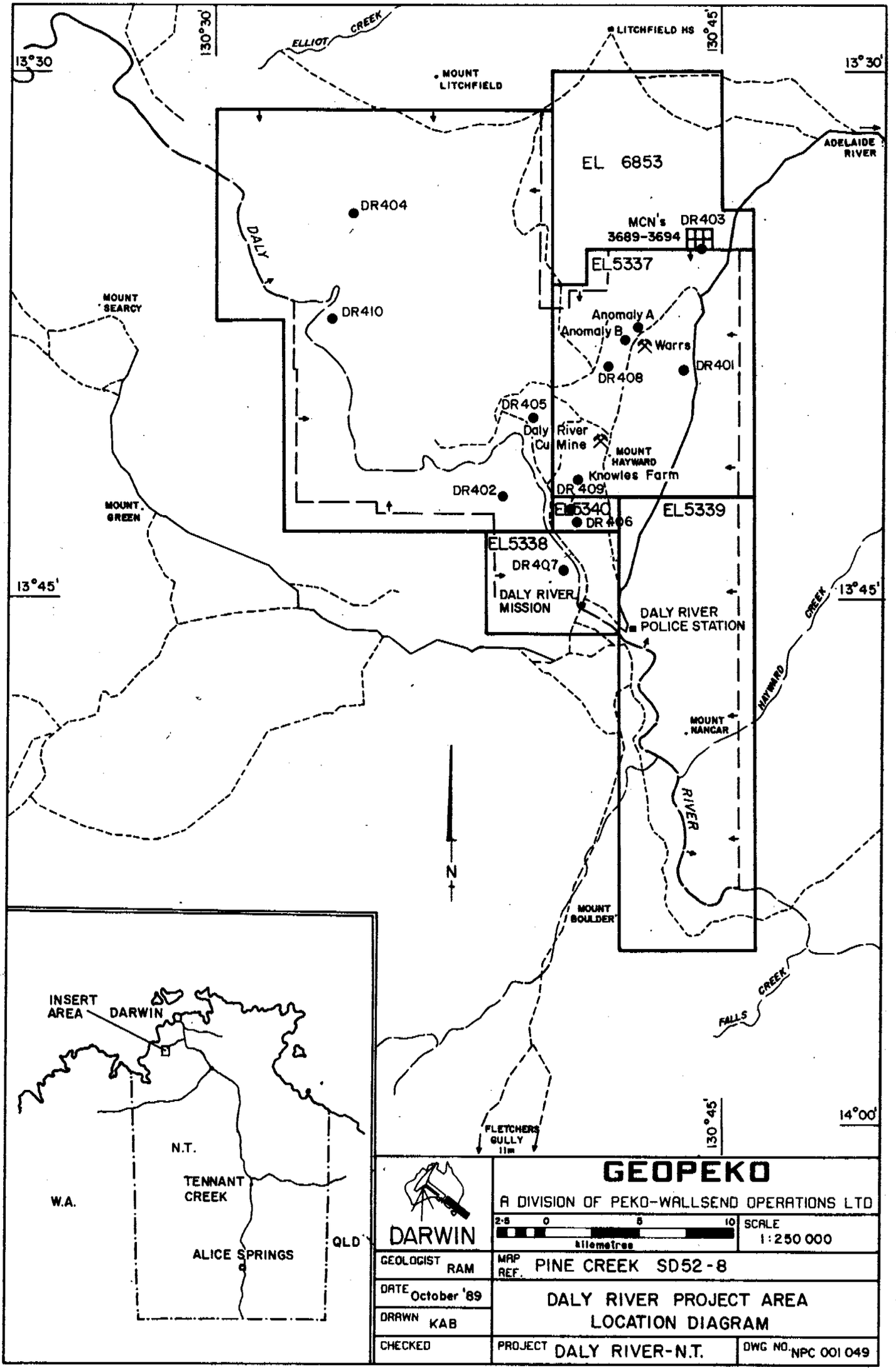
This report documents all work completed within Exploration Licence 5338, of the Northern Territory, in its first tenure year. This lease is one of five adjoining leases in the Daly River region comprising a joint venture agreement between Geopeko (A Division of Peko Exploration Ltd.) and Suttons Motors Pty. Ltd.

EL 5338 comprises 12 graticular blocks, totalling 39 sq.km., and is situated approximately 150km south southwest of Darwin, N.T., and 5km northwest of the Daly River Police Station (Figure NPC 001 049).

The lease was granted to Suttons Motors Pty. Ltd. on 12th May 1989 for a period of 6 years. Approximately 20% of the lease is covered by the Malak Malak Aboriginal Land Trust (Figure NPC 001 040).

Geopeko's exploration approach has been to evaluate all previous exploration data for content and interpretation validity, and to conduct its own geochemical and geophysical surveys to further define/enhance existing anomalies, and to locate new previously undiscovered anomalies.

EL 5338 is considered highly prospective with potential for hosting mineralisation along strike from known mineral deposits. The prospective mineral commodities are Au,Cu,Pb,Zn, and Ag which are known to occur locally within Lower Proterozoic metasediments and volcanics.


130°30'
13°30
ELLIOT CREEK
LITCHFIELD HS
130°45'
13°30'
MOUNT LITCHFIELD
ADELAIDE RIVER
EL 6853
DR404
DALY
MCN's 3689-3694
DR403
EL5337
MOUNT SEARCY
DR410
Anomaly A
Anomaly B
Warrs
DR408
DR401
DR405
Daly River Cu Mine
MOUNT HAYWARD
Knowles Farm
DR402
DR409
EL5340
DR406
EL5339
MOUNT GREEN
EL5338
DR407
13°45'
DALY RIVER MISSION
DALY RIVER POLICE STATION
HAYWARD CREEK
MOUNT NANCAR
N
RIVER
MOUNT BOULDER
CREEK
FALLS
FLETCHERS GULLY
14°00'
INSERT AREA
DARWIN
N.T.
TENNANT CREEK
W.A.
QLD
ALICE SPRINGS
DARWIN
GEOPEKO
A DIVISION OF PEKO-WALLSEND OPERATIONS LTD
2·5 0 5 10
kilometres
SCALE 1:250 000
GEOLOGIST RAM
MAP REF. PINE CREEK SD52-8
DATE October '89
DRAWN KAB
CHECKED
DALY RIVER PROJECT AREA
LOCATION DIAGRAM
PROJECT DALY RIVER-N.T.
DWG NO. NPC 001 049

2. LOCATION, TOPOGRAPHY, ACCESS

Exploration Licence 5338 is situated approximately 150km south southwest of Darwin, Northern Territory, and 5km northwest of the Daly River Police Station (Figure NPC 001 049).

Access to the lease area is via the Stuart Highway to Adelaide River, then the Old Stuart Highway for 34km, and finally along the Daly River Road. The road is sealed with the exception of a 30km stretch along the Daly River Road. Local wet-season storms cause local flooding along this dirt portion, precluding vehicles access. Numerous dirt tracks leading from the Mango Farm Road, on the southern side of the river access the lease.

The exploration licence is composed of minor undulating hills within numerous wide flood plains. Lagoons frequent the lease and spill over 20% to 30% of the lease area for much of the wet season.

The Daly River region is exposed to a wet season from November to April, when greater than 90% of Daly River's mean annual rainfall of 1400mm occurs. Relative humidity is usually less than 50% during the dry season with temperatures up to 10 C less than those during the wet season. The Bureau of Meteorology, N.T., claims the monthly mean of daily maximum temperatures ranges from 31° to 44° C and the monthly mean of daily minima from 12° to 24° C.

3. TENURE

Exploration Licence 5338, in the Northern Territory, consists of 12 graticular blocks, totalling 39 square kilometres. It's boundaries are dictated by latitudes of 13° 43' 00" and 13° 46' 00", and longitudes 130° 38' 00" and 130° 42' 00".

The lease was granted to Suttons Motors Pty.Ltd. on 12th May 1989 for a period of 6 years, with a first year expenditure covenant of $20,000.

The following blocks are contained within EL 5338.

54/19 - 54/22
55/19 - 55/22
56/19 - 56/22

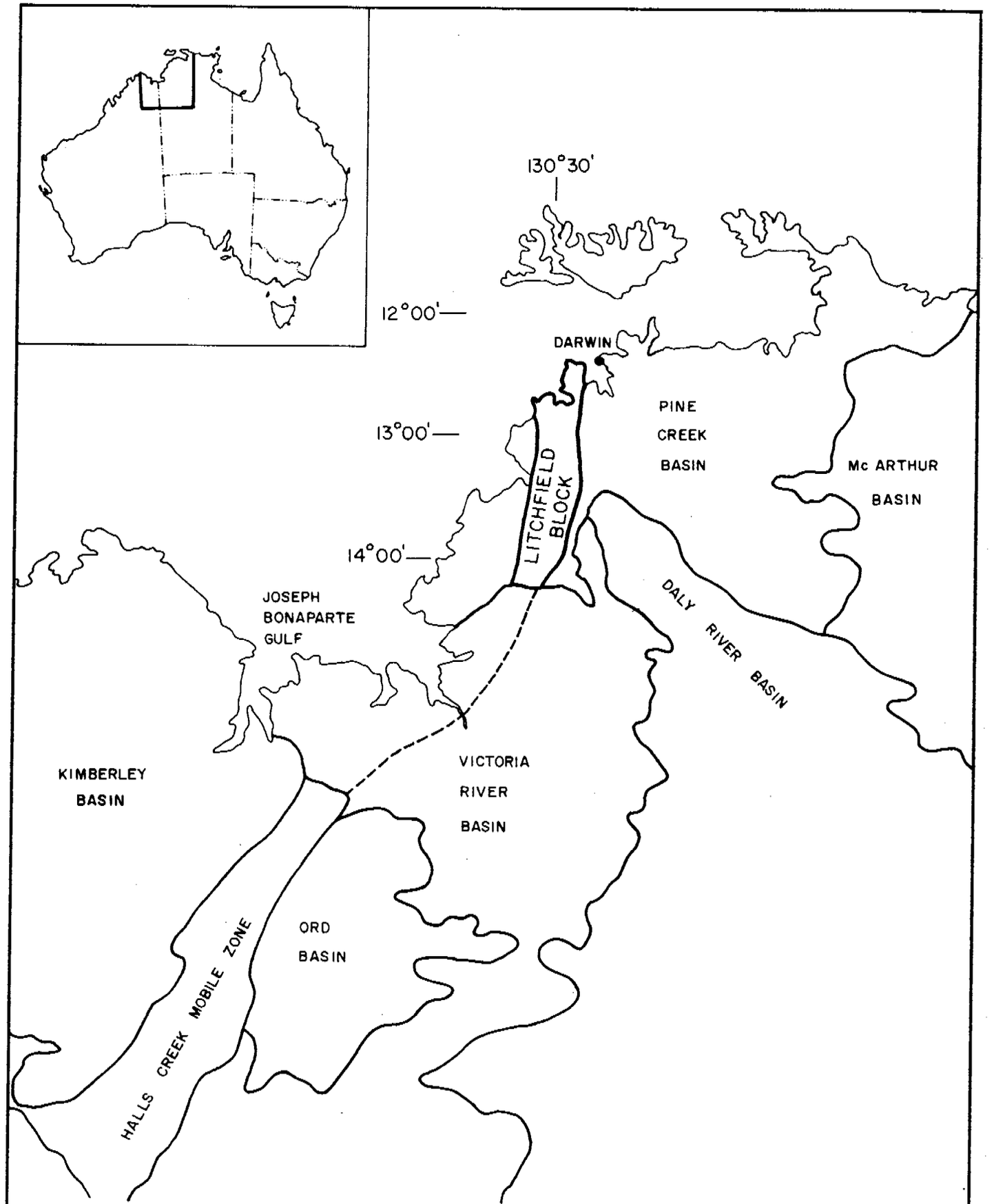
EL 5338 partially lies within an area recently granted to the Malak Malak Aboriginal Land Trust. The remaining portion is composed of small freehold titles.

4. REGIONAL GEOLOGY

The Bureau of Mineral Resources first mapped the Daly River region between 1953 and 1958, and published the material in Walpole et. al. (1968). The Northern Territory Geological Survey (NTGS) mapped the DALY RIVER 1:100,000 scale sheet (5070) in 1982 using 1:25,000 scale aerial photographs. During 1984 the NTGS complimented their work with airborne magnetic and radiometric surveys. Final publication of sheets 5070 and accompanying explanatory notes were published in 1987, along with 1:25,000 scale geological compilations.

EL 5338 and environs lie within the Litchfield Block which defines the western limit of the Pine Creek Basin, the northwestern limit of the Daly River Basin, the northern limit of Victoria River Basin, and the northeastern margins of the Joseph Bonaparte Basin (Figure NPC 001 088).
The Litchfield Block is composed of basal Early Proterozoic Hermit Creek metamorphics. These rocks are of medium to high grade amphibolite facies (Dundas et. al. 1987). Granitoids of the Litchfield Block intrude volcanics, sandstones, and conglomerates of the Finniss River group. Sediments of the Finniss River Group are overlaid unconformably to the east and southeast by sandstone and dolerite units of the Tolmer Group. Cambrain rocks of the Daly River Basin unconformably overlie the Tolmer Group.

A large semicontinuous dextral wrech fault (Giants Reef Fault) traverses the centre of the Finniss River Group. The fault extends from Rum Jungle in the north into the Fitzmaurice and Halls Creek Mobil Zones further south.



DARWIN

GEOPEKO

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SCALE 1:5000000

100 0 100 200 km

Geo RAM	Map Ref. PINE CREEK SD52-8
Drawn KAB	DALY RIVER REGIONAL GEOLOGY
Checked	
Date 10/7/90	DALY RIVER — Dwg. No NPC 001 088

5. EXPLORATION HISTORY

The first recorded discovery of economic mineralisation in the Daly River region was in the early 1880's when a small party of prospectors discovered copper at the site of the Daly River Copper Mine. Several other much smaller prospects were located and worked for spasmodic periods. The following table (after W.N Thomas, 1958) summarises the incomplete production records of the Daly River Mineral Field.

TABLE 1 : DALY RIVER MINERAL FIELD PRODUCTION STATISTICS.

DATE	MINE	TONNAGE EXTRACTED (t)	COPPER GRADE (%)	COMMENTS
1885 to 1912	Daly River	5280	28 (max)	Includes some ore from other mines. Grades reported for 4 years only corresponding to 3370 tonnes production.
1890	Whealdanks	500 or 450	28.0 or 35.0	Two differant sources of information
1890	Wallaby	30	35.75	
1905	Empire	140 5.5	low grade Good grade	Smelted Shipped
1918	Big Blow	64 8	4.0 25.0	This is probably the Daly River Copper Mine under another name.

Absolute production statistics have not been sited but it is believed that small quantities of ore were extracted from Warr's Prospect. Lead-silver mineralisation was also recorded at the Knowles Farm Prospect.

The period between 1912 and 1950 saw little if no exploration conducted in the Daly River region. Between 1955 and 1957, several companies including CRA performed general reconnaissance, and examined the known mineral occurrences. Enterprise Exploration was granted AP 529 over the area in 1955 and concluded their reconnaissance exploration by drilling a single diamond drill hole beneath the Daly River Copper Mine, without intersecting significant mineralisation.

Prospectivity of the Daly River area was enhanced following the published results of the Bureau of Mineral Resources (BMR) airborne magnetic survey in 1966. Western Nuclear Australia Pty.Ltd. actively explored the area between 1967 and 1970 under AP 2206. A total of 29 drill holes were completed, locating sub-economic massive zinc mineralisation at the Anomaly A and Warrs prospects (Figure 5070-IV-NE-II, 5070-IV-SE-I). Between 1971 and 1977 the Cuprex joint venture (Penarroya , Aquitaine, and Preussag) continued the exploration program under EL 356. This program included auger geochemistry, ground geophysical surveys (magnetics, induced polarisation, electromagnetics, and gravity), and 29 diamond drill holes. Whilst some extensions to the lodes at Anomaly A and Warrs prospect were delineated, no other significant mineralisation was intersected. Exploration for uranium consisted of checking known surface mineralisation for radioactivity and completing five east-west radiometric traverses across the volcanic sedimentary sequence. No anomalies were located, and no correlation between radiometric response and lithology was observed.

In 1977 a review of all exploration efforts concluded that mineralisation of anomaly A was the most significant discovery in the district but was of too low a tonneage to be economic. Estimates of reserves at Anomaly A in 1977 stood at:

Southern Lens : 213,350t @ 18.7%Zn, 0.65%Cu, 0.3%Pb, 3ppm Ag
Northern Lens : 548,650t @ 6.6% Zn, 2.2% Cu, 0.3%Pb, 19ppm Ag
(No cut off grades stated)

Le Nickel concluded that bedrock soil sampling, magnetics, and induced polarization were the most effective exploration tools in their search for zinc mineralisation, and that extreme dip/azimuth deviations were common during drilling programs.

The BMR completed a regional low level airborne magnetic and

radiometric survey over the Daly River Mineral Field in 1976. Average ground clearance was calculated at 150m, however 1.5km line spacing rendered the survey useless in delineating anomalies.

Tipperary Land Corporation explored for bauxite and phosphate in Tertiary laterites and Cambrian carbonate units northwest of the Daly River Mineral Field during 1966/67 without success within AP 1773.

During the period 1969-1970 Henry and Walker explored for extensions to known mineralisation south of the Daly River Copper Mine, under AP 2304. This effort was also undertaken by Cawley and Weston in 1971 to 1972 within AP 3341. Both companies efforts proved unsuccessful, with only minor traces of tin located on the western slopes of the Mount Nancar Range.

Australian Development Ltd. located a southern extension of the volcanic sequence in which the Daly River mineral occurrences are hosted. This work was carried out from 1969 to 1973 within AP 2325 (subsequently EL 677). An airborne magnetic and total count scintillometer survey failed to detect any anomalies. This area slightly overlaps with EL 5338.

In 1977, an extensive airborne radiometric and magnetic survey was flown by the Suttons Motors Group within Tipperary Station. This survey also included a large portion of the Daly River Mineral Field. The survey suffered instrument problems, resulting in ambiguous analog data. The survey was subsequently re-flown by the Mobil Energy Minerals Australia Inc. (MEMA) - Sutton Motors Group joint venture.

The MEMA - Suttons joint venture from 25/8/1978 to 16/2/1983 consisted of evaluating all tenements already held by Suttons surrounding the Malak Malak Land Claim. The principal target sought by the joint venture was stratabound uranium mineralisation similar to that found in the Alligator River Uranium Field in the East Pine Creek Basin. Exploration consisted of airborne geophysics, ground radiometrics and magnetics, radon emanometry, track etch, geological mapping, auger, percussion and diamond driling, and electric logging. Results were generally discouraging.

Suttons Motors Pty. Ltd. relinquished all leases in the Daly River region. Exploration Licence Applications 1826,1827,1828,1829 and 1830 were held in obeyence pending the outcome of the Malak Malak Land Claim. These ELA's were granted on 12/5/89 as EL's 5336.5337.5338.5339 and 5340.

Geopeko (A division of Peko Wallsend Operations Limited) became operator of a joint venture with Suttons Motors Pty.Ltd. on 20/7/1989.

6. WORK CONDUCTED DURING THE FIRST TENURE YEAR

Five exploration leases comprise the Geopeko-Suttons Joint Venture, from which EL 5338 is considered prospective for Au, Cu, Pb, Zn, Ag and U mineraliation.

Exploration during the period 12.5.89 to 11.5.90 consisted of the flying of a low level airborne magnetic and radiometric survey over the whole EL 5338 (Figure NPC 001 040 abcd).

Table 2 summaries all flight data relevant to the airborne survey.

One magnetic anomaly DR 407 (681200E/8481030N AMG) was located by the survey. Due to increased exploration potential within EL 5337 the anomaly has only been located by GPS Navigator, but has recieved no further attention. The actual cause of the anomaly remains unknown.
The airborne magnetic survey has led to a greater understanding of the structural setting within EL 5338 and environs. Figure 001 040 abcdf displays some of the possible structual elements of EL 5338.

Evident from the airborne magnetic survey is a north - south striking fold (possibly a syncline) of unknown plunge to the north.

TABLE 2

AIRBORNE MAGNETICS AND RADIOMETRIC SURVEY DATA

SURVEY CONTRACTOR : Austirex International Ltd.
SURVEY AIRCRAFT : Aerocommander 500S
SURVEY DATE : 27/5/89 - 31/5/89
MAGNETOMETER TYPE : Scintrex, V2321 Alkali Vapour
MAGNETOMETER RESOLUTION: 0.01 nT
MAGNETOMETER SAMPLING RATE : 0.2 sec
SPECTROMETER TYPE : Exploranium, GR-800 D
SPECTROMETER SAMPLING RATE : 1.0 sec
FLIGHT LINE DIRECTION : 090° - 270° TRUE
FLIGHT LINE SPACING : 100 and 200m
MEAN TERRAIN CLEARANCE : 80m

7. CONCLUSION

Work completed within EL 5338 during the first tenure year has defined one anomaly (DR 407) warranting detailed ground follow up work (Figure NPC 001 040 abcd). The anomaly appears to have character similar to those associated with massive Pb-Zn-Cu deposits 15 km to the north. It is recommended that reconnaissance magnetic traverses combined with rock chip geochemistry and geological mapping be undertaken to determine the cause to the anomaly.

Evident from the airborne magnetic survey is the likely presence of a northerly plunging synform , which hosts anomaly DR 407 within the eastern limb (Figure NPC 001 040 abcdg).

8. EXPENDITURE

Exploration expenditure on EL 5338 for the period 12 May 1989 to 11 May 1990, being the first tenure year, totalled $ 29,127 as detailed below. This excceds the covenant of $ 20,000 by $9,127.

CATEGORY	$
Salaries	4,488
Wages	699
Tenement Expenses	125
Base Support Costs	4,700
Vehicles	1,194
Travel and Accommodation	783
Field Supplies	887
Geological Maps	207
Analytical Costs	1,304
Mineralogy and Petrology	223
Geophysics - Airborne	12,194
- Ground	39
Survey and Gridding	730
Management Expenses	1,554
TOTAL	$ 29,127

9. PROPOSED WORK PROGRAM FOR SECOND TENURE YEAR 12.5.1990 - 11.5.1991

It is proposed that in order to identify the cause of each of the anomaly DR 407 the following ground work be undertaken.

1. Relocation of anomaly using a GPS Navigational System.
2. Regional stream sediment sampling
3. Rock chip sampling of available outcrops
4. Detailed geological mapping
5. Reconnaissance ground magnetic traverse
6. Diamond drilling

The proposed exploration expenditure for EL 5338 for the period 12.5.1990 to 11.5.1991 will be $13,000 , as deatiled below :

Catergory	$
Personnel	3750
Field Support Costs	2000
Drilling Reverse Circulation	3000
Analytical Costs	2000
Geophysical Instrument Hire	250
Administration	2000
TOTAL $	13,000

BIBLIOGRAPHY

Berger.P.	1973	Geology and mineralisation of the Daly River Prospect, N.T., EL356, Vol. 1.
Brooke. W.	1975	Stratigraphy and mineralisation of "A" Anomaly and Warrs Prospect Daly River, N.T.
Dundas, D.L,Edgoose, C.J, Fahey, G.M, and Fahey, J.F.	1989	Explantory Notes for Daly River 1:100,00 Geological Map series Northern Geological Survey
Thomas, W.N.	1958	Mineral Occurrences, Daly River area, N.T.
Walpole, et.al.	1968	Geology of the Katherine-Darwin region, Northern Territory. Bureau of Mineral Resources, Antratic, Bulletin 22.

TOPOGRAPHICAL LEGEND
Sealed Road
Vehicle Track
Fence
Trigonometrical Station (Name/A.H.D in metres)
Watercourse
Prospect or Mine
Open Cut or Quarry
Prospect Location
TENURE LEGEND
Lease Boundary
Surveyed Corner Peg
Surveyed Point
Leasing: MCC No Mineral Claim
MLC No Mineral Lease
EMPC No Extractive Mineral Permit
HLDC No Holding
A No Authority
EL No Exploration Licence
DRILLHOLE DATA
Hole No
Easting | Depth
Entry or Exit into section of Projected Drillhole
Survey Point (metres)
Order of Assay Results
Intersection with Section Plane (depth in metres)
End of Hole (metres)
Easting
Hole No
Drillhole collar and plan view, with end of hole depth
Intersection of Lode
Economic intersection with value and meterage
Wedge Run-off
GEOLOGICAL LEGEND
Lithological Boundary pos'n known
Lithological Boundary pos'n approx.
Lithological Boundary inferred
Lode Boundary
Base of Oxidation
Fault position known
Fault position approx
Fault inferred
Relative movement of Fault horizontal
u-up
d-down
Unconformity
Trend Line
Shear Zone
Dyke or Vein (q-quartz)
Bedding:
Vertical
Horizontal
Strike and Dip - measured
Overturned Strata
Top of Bed with facing
Cleavage:
Vertical
Horizontal
Strike and Dip - measured
Strike indeterminable
Jointing:
Vertical
Horizontal
Strike and Dip - measured
Foliation:
Vertical
Horizontal
Strike and Dip - measured
Direction and Plunge of Lineation
Plunge of Minor Anticline
Plunge of Minor Syncline
Plunge of Major Anticline
Plunge of Major Syncline
Sample Location
DALY RIVER LAND CLAIM
Pastoral Lease & Crown Lease (P)
Freehold
Agricultural Lease (Now Freehold)
Grazing Licence
Daly River Land Claim
Miscellaneous Lease (Now Freehold)
Land Granted excluding Alienated Land
INDEX TO ADJOINING
130°30'E
130°40'E
130°50'E
131°00'E
13°30'S
13°40'S
13°50'S
14°00'S
8500000mN
8490000mN
8480000mN
8470000mN
8460000mN
670000mE
KILFOYLE PLAINS
EL 5340
EL 6339
MOUNT THOMAS
MOUNT BOULDER
REYNOLDS RIVER
ROCK LANDY RANGE
DALY RIVER
Paw Paw Spring
Peggy Spring
Alligator Lagoon
GEOPEKO
DARWIN
Map Ref
DALY RIVER
TENURE, TOPOGRAPHY, LAND CLAIM
CR90/509
Drawn
Checked
Date

130°42'E 130°43'E 130°44'E

8500000mN
8499000mN
8498000mN
8497000mN
8496000mN
8495000mN
8494000mN

MCN 3689 | MCN 3690 | MCN 3691 | ERL 42
MCN 3692 | MCN 3693 | MCN 3694

DR 403

EL 5337

KILFOYLE CREEK

T-0118 T-0119 T-0121 T-0122 T-0120 T-0124 T-0123 T-0125 T-0126 T-0117 T-0115 T-0116 T-0110 T-0114 T-0113 T-0111 T-0106 T-0105 T-0104 T-0112 T-0109 T-0108 T-0107

ANOMALY A

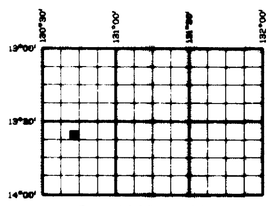
ANOMALY B

WARRS

T-0101 T-0102 T-0103 T-0126

683000mE 684000mE 685000mE 686000mE 687000mE 688000mE 689000mE

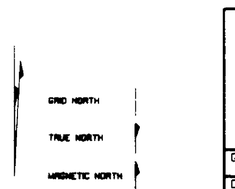
LOCATION DIAGRAM



PINE CREEK SD52-8

INDEX TO ADJOINING MAPS

5070 IV-NE-IV	5070 IV-NE-I	5070 I-NW-IV
5070 IV-NE-III	5070 IV-NE-II	5070 I-NW-III
5070 IV-SE-IV	5070 IV-SE-I	5070 I-SW-IV



NORTH POINT RELATIONSHIPS ARE SHOWN FOR THE CENTRE OF THE MAP. MAGNETIC NORTH IS CORRECT FOR 1980

GRID/MAGNETIC ANGLE 3°5'60"
GRID CONVERGENCE 0°24'14.71"
SECULAR VARIATION 0°0'22" west per year

DARWIN

GEOPEKO

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Scale 1 10 000

200 0 200 400 600 800 1000 metres

AUSTRALIAN MAP GRID Map Centre Scale Factor 1.00002778

Map Ref **DALY RIVER-IV-NE-II**

Geo	
Drawn	
Checked	
Date	

TOPOGRAPHY,
SAMPLE LOCATION, CR90/509

Dwg No

EL 5337

130°42'E 130°43'E 130°44'E

8493000mN 8492000mN 8491000mN 8490000mN 8489000mN 8488000mN 8487000mN

ANOMALY E
T-0156 T-0157 T-0158 T-0159 T-0160 T-0161 T-0162 T-0163 T-0164
T-0165
DR408
WHAELDANKS
ANOMALY F
CREEK
DR401
T-0127 T-0144
WHEAL DANKS NORTH MINE
T-0063 T-0064 T-0065 T-0066 T-0067
HILL 4 MINE
T-0044 T-0045 T-0046 T-0047 T-0055 T-0056 T-0057 T-0058 T-0059 T-0060 T-0061 T-0062
WHEAL DANKS MINE
T-0028 T-0027 T-0034 T-0035
WALLABY MINE
T-0036 T-0037 T-0038 T-0039 T-0040 T-0041 T-0042 T-0043
T-0017 T-0018 T-0019 T-0020 T-0021 T-0022 T-0023 T-0024 T-0025 T-0026
T-0012 T-0013
T-0001 T-0002 T-0003 T-0004 T-0005 T-0006 T-0007 T-0008 T-0009 T-0010 T-0011 T-0014 T-0015 T-0016
T-0145
T-0146
T-0147
WHEAL DANKS SOUTH MINE
T-0168 T-0169 T-0167 T-0166
EMPIRE MINE
T-0148
T-0149 T-0150 T-0151
T-0152 T-0153
T-0154 T-0155
DALY RIVER COPPER MINE
MOUNT HAYWARD

13°40'S 13°41'S

583000mE 584000mE 585000mE 586000mE 587000mE 588000mE 589000mE

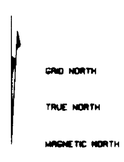
NOTE : Samples T-0001 – T-0011 were taken over 100 metre intervals.

LOCATION DIAGRAM

PINE CREEK SD52-8

INDEX TO ADJOINING MAPS

5070 IV-NE-III	5070 IV-NE-6	5070 I-NW-13
5070 IV-SE-IV	5070 IV-SE-1	5070 I-SW-16
5070 IV-SE-III	5070 IV-SE-5	5070 I-SW-12



NORTH POINT RELATIONSHIPS ARE SHOWN FOR THE CENTRE OF THE MAP. MAGNETIC NORTH IS CORRECT FOR 1980.

GRID/MAGNETIC ANGLE 3°5'58"
GRID CONVERGENCE 0°2'49.87"
SECULAR VARIATION 0°0'29" west per year

DARWIN

GEOPEKO

A DIVISION OF PEKO-WALLSEND OPERATIONS LTD.

Scale 1 10 000

200 0 200 400 600 800 1000 metres

AUSTRALIAN MAP GRID Map Centre Scale Factor 1.000027

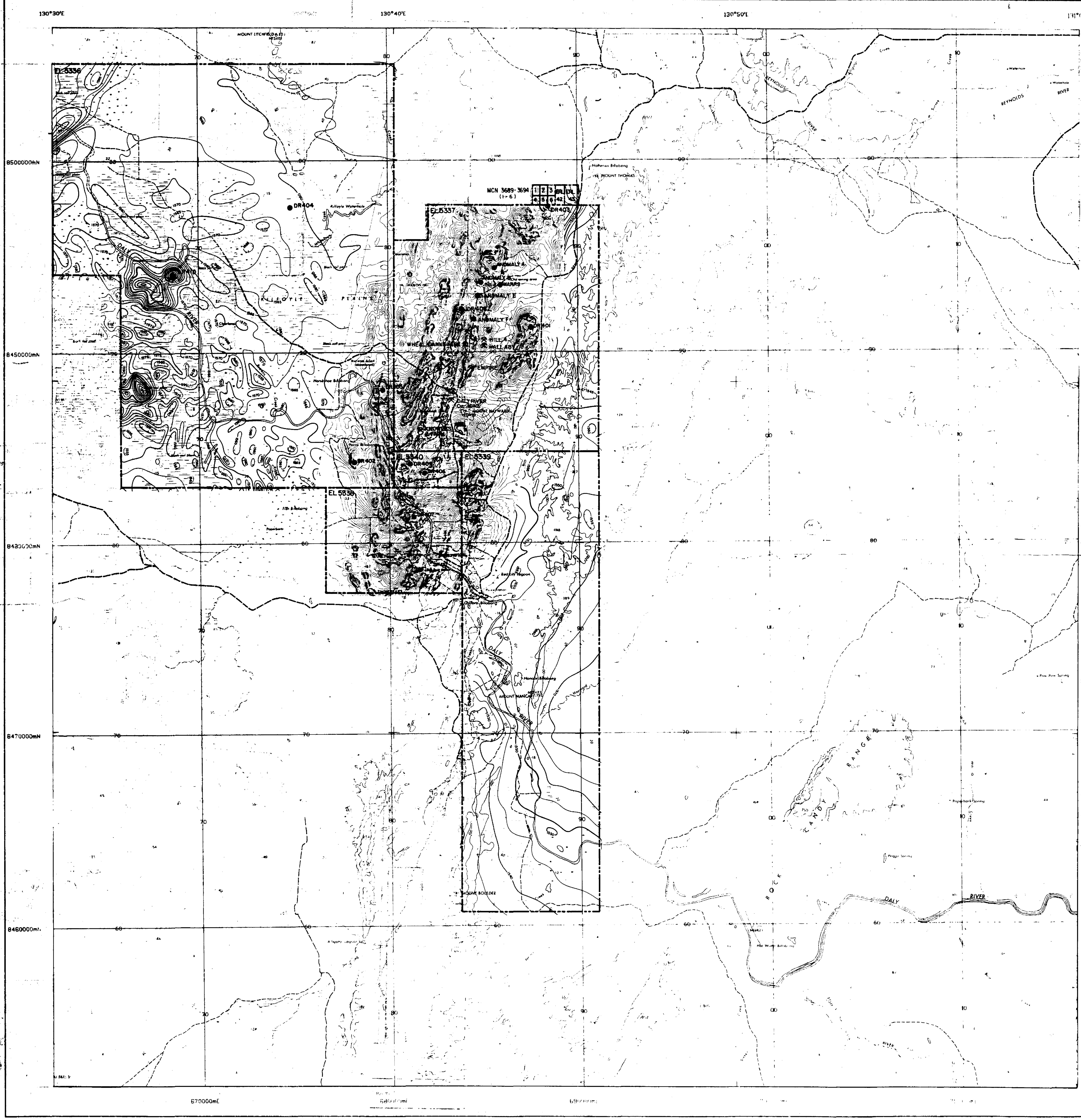
Map Ref **DALY RIVER-IV-SE-1**

Geo	
Drawn	
Checked	
Date	

TOPOGRAPHY,
SAMPLE LOCATION,

CR90/509

Dwg. No



TOPOGRAPHICAL LEGEND

- Sealed Road
- Vehicle Track
- Fence
- Trigonometrical Station (Name/A.H.D in metres)
- Watercourse
- Prospect or Mine
- Open Cut or Quarry

TENURE LEGEND

- Lease Boundary
- Surveyed Corner Peg
- Surveyed Point
- Leasing: MCC No-Mineral Claim
  - MLC No-Mineral Lease
  - EMPC No-Extractive Mineral Permit
  - HLDC No-Holding
  - A No-Authority
  - EL No-Exploration Licence

DRILLHOLE DATA

- Entry or Exit into section of Projected Drillhole
- Hole No
- Easting | Depth
- Survey Point (metres)
- Order of Assay Results
- Intersection with Section Plane (depth in metres)
- End of Hole (metres)
- Easting
- Hole No
- Drillhole collar and plan view, with end of hole depth
- Intersection of Lode
- Economic intersection with value and meterage
- Wedge Run-off

GEOLOGICAL LEGEND

- Lithological Boundary-pos'n known
- Lithological Boundary-pos'n approx.
- Lithological Boundary inferred
- Lode Boundary
- Base of Oxidation
- Fault-position known
- Fault-position approx.
- Fault-inferred
- Relative movement of Fault-horizontal
  - u-up
  - d-down
- Unconformity
- Trend Line
- Shear Zone
- Dyke or Vein (q-quartz)

Bedding:
- Vertical
- Horizontal
- Strike and Dip - measured
- Overturned Strata
- Top of Bed with facing

Cleavage:
- Vertical
- Horizontal
- Strike and Dip - measured
- Strike Indeterminable

Jointing:
- Vertical
- Horizontal
- Strike and Dip - measured

Foliation:
- Vertical
- Horizontal
- Strike and Dip - measured
- Direction and Plunge of Lineation

- Plunge of Minor Anticline
- Plunge of Minor Syncline
- Plunge of Major Anticline
- Plunge of Major Syncline
- Sample Location

A GEOPEKO - SUTTONS JV AIRBORNE MAGNETIC SURVEY

B B.M.R. AIRBORNE MAGNETIC SURVEY

LOCATION DIAGRAM

PINE CREEK 5052-B

INDEX TO ADJOINING MAPS

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GRID NORTH

TRUE NORTH

MAGNETIC NORTH

NORTH POINT RELATIONSHIPS ARE SHOWN FOR THE CENTRE OF THE MAP. MAGNETIC NORTH IS CORRECT FOR 1990

GEOPEKO

A DIVISION OF PEKO-WALLSEND OPERATIONS LTD

Scale 1:100 000

AUSTRALIAN MAP GRID Map Centre Scale Factor 1.0000428?

DARWIN

Map Ref: DALY RIVER

Geo

Drawn

Checked

Date

TENURE, TOPOGRAPHY, PROSPECT LOCATION, TOTAL MAGNETIC INTENSITY

CR90/509

Dwg No NPC 001 040/abcd

TOPOGRAPHICAL LEGEND
Sealed Road
Vehicle Track
Fence
Trigonometrical Station (Name/A.H.D in metres)
Watercourse
Prospect or Mine
Open Cut or Quarry
TENURE LEGEND
Lease Boundary
Surveyed Corner Peg
Surveyed Point
Leasing: MCC No-Mineral Claim
MLC No-Mineral Lease
EMPC No-Extractive Mineral Permit
HLDC No-Holding
A No-Authority
EL No-Exploration Licence
DRILLHOLE DATA
GEOLOGICAL LEGEND
Unconformity
Trend Line
Shear Zone
Vertical
Horizontal
Strike and Dip - measured
Overturned Strata
Top of Bed with facing
Strike indeterminable
Plunge of Minor Anticline
Plunge of Minor Syncline
Plunge of Major Anticline
Plunge of Major Syncline
Sample Location
Possible Bedding Trends
Faults
Processed Magnetic Lineament
A GEOPEKO - SUTTONS JV AIRBORNE MAGNETIC SURVEY
B B.M.R. AIRBORNE MAGNETIC SURVEY
INDEX TO ADJOINING MAPS
PINE CREEK SD52-8
GEOPEKO
A DIVISION OF PEKO-WALLSEND OPERATIONS LTD
Scale 1:100 000
DARWIN
DALY RIVER
TENURE, TOPOGRAPHY, PROSPECT LOCATION, TOTAL MAGNETIC INTENSITY, MAGNETIC INTERPRETATION,
CR90/509

NORTHERN TERRITORY GEOLOGICAL SURVEY — GEOSYSTEM DATA SHEET — GEOL/GDS

*see over for Explanatory Notes

REPORT TITLE: FIRST ANNUAL REPORT ON EXPLORATION LICENCE 5338 NORTHERN TERRITORY

AUTHOR(S): R.A. MEADE

PUBLISHER: GEOPEKO (A DIVISION OF PEKO EXPLORATION LTD.)

PLACE OF PUB'N: DARWIN , N.T. DATE OF PUB'N: JULY 1990

PAGES OF TEXT: 19 NO. AND PAGES OF APPENDICES: 1

* NO.'S OF ACCOMPANIMENTS: (1)PHOTOS _____ (2)DIAGRAMS 2 (3)TABLES 2 (4)PLANS 5 (5)GRAPHS _____ (6)LOGS _____

LICENCE NO.(S): EL 5338 PROJECT YEAR(S): FIRST 1989/1990

LICENCEE(S): SUTTONS MOTORS PTY. LTD

JOINT VENTURE(S): SUTTONS MOTORS PTY. LTD / GEOPEKO

OPERATOR(S): GEOPEKO

1:1 000 000 map name(s) and No.(s) _____

1: 250 000 map name(s) and No.(s) PINE CREEK SD 52/8

1: 100 000 map name(s) and No.(s) DALY RIVER 5070

1: 50 000 map name(s) and No.(s) MOUNT HAYWARD 5070/4, DALY RIVER 5070/3

PROSPECT NAME: EXPLORATION LICENCE 5338

** SITE LOCATION: LAT: 13°43' 00" S LONG: 130°38' 00"
EAST: 676620 NORTH: 8483007

*** TECTONIC UNIT

MAJOR TERM: [X] METALS [ ] NONMETALS [ ] PETROLEUM _____ OTHER

**** MINOR TERMS

DRILLING
- [ ] DIAMOND
- [ ] PERCUSSION
- [ ] AUGER
- [ ] ROTARY

COMMODITIES
- [ ] U [X] Au [X] Ag
- [X] Cu [X] Pb [X] Zn
- [ ] Sn [ ] W [ ] Dmd
- _____ Other

AERIAL/GRND GEOPHYSICS
- [X] [ ] MAGNETIC
- [ ] [ ] RADIOACTIVITY
- [ ] [ ] E.M. SURVEY
- [ ] [ ] IP SURVEY
- [ ] [ ] SEISMIC
- [ ] [ ] RESISTIVITY
- [ ] [ ] GRAVITY
- [ ] [ ] GEOPHYSICAL ANOM

GEOCHEMISTRY
- [ ] DRAINAGE TESTING
- [ ] DRILLCORE ANALYSIS
- [ ] ASSAYING
- [ ] GEOCHEMICAL ANOM

SAMPLING
- [ ] STREAM SEDIMENT
- [ ] SOIL
- [ ] ROCK CHIP
- [ ] WATER

GENERAL
- [ ] GEOL MAPPING
- [ ] PHOTOGEOLOGY
- [ ] GRIDDING
- [ ] METHODS
- [ ] REGIONAL GEOL
- [ ] LOCAL GEOLOGY
- [ ] STRATIGRAPHY
- [ ] RECONNAISSANCE
- [ ] LOGGING

OTHER TERMS: WARRS VOLCANIC MEMBER
BURRELL CREEK FORMATION
MOUNT HAYWARD VOLCANIC MEMBER

NOTES

ABSTRACT ATTACHED

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