# WOODLEIGH NOMINEES PTY. LTD.

ABN 92 050 120 057

**REPORT ON EL25903** 

for the period

14/11/2007 to 13/11/2008

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#### 1. Summary:

Due to there being a lack of available drilling equipment and geologists, the original plan to implement a small drilling programme on the "Misses Mine" was postponed. With the reassessment of the stream sediments the alluvial potential of the area was also being considered. It has been found in the past that removal of economic alluvial material provides a clearer vision for future exploration in addition to an earlier cashflow. Additional attention was directed to the western corner of the EL which contained a portion of the original Francis Creek Iron Ore lease.

## 2. History:

The Casey Family and later Woodleigh Nominees Pty. Ltd. has been involved with the Francis Creek area for approximately 50 years both in their own right or as a joint venture partner with CSR Limited. An estimated \$0.75M was spent collectively on exploration of the area. After CSR Ltd. withdrew from the mining industry the Caseys and/or Woodleigh purchased their interests in the area and proceeded with further exploration. Development work completed on the adjoining group of MLNs. comprising the Francis Creek Gold mine has been valued in excess of \$1M in 1991 by Renison personnel. All of this work was completed and funded by the Caseys and/or Woodleigh.

In or about June 2007 Woodleigh applied for EL25903 which was subsequently granted in November 2007 for a period of six years.

# 3. Climate

The Francis Creek area is in general terms typical Top End country comprising open Eucalypt woodland and open savannah grasslands. The Top End enjoys an annual rainfall around 1500mm, most of which falls in the Wet Season, from November to April.

## 4. Geology

In the Dominion EL7487 report dated April 1993, S.J.Pooley described the geology of this area as follows;

#### 3.0 GEOLOGY

#### 3.1 Regional Geology

#### 3.1.1 Regional History

The Pine Creek Inlier is a roughly triangular area of about 66,000km<sup>2</sup> south and east of Darwin, which contain Early Proterozoic metasedimentary rocks resting on a gneissic and granitic Archaean basement. The metasediments represent fluviatile, shallow water, intertidal basinal and flyschoid sequence up to 14km thick within an intracratonic basinal setting (Needham et al, 1980).

During the Top End Orogeny (1870–1780Ma) rocks within the Pine Creek Inlier were metamorphosed to mainly greenschist facies, however, amphibolite facies metamorphic mineral assemblages dominate in the Alligator Rivers region. Known Archaean rocks are restricted to granite-gneiss of the Rum Jungle, Waterhouse and Nanambu complexes which form mantled gneiss domes near the exposed eastern and western margins of the inlier. (Page, et al, 1980).

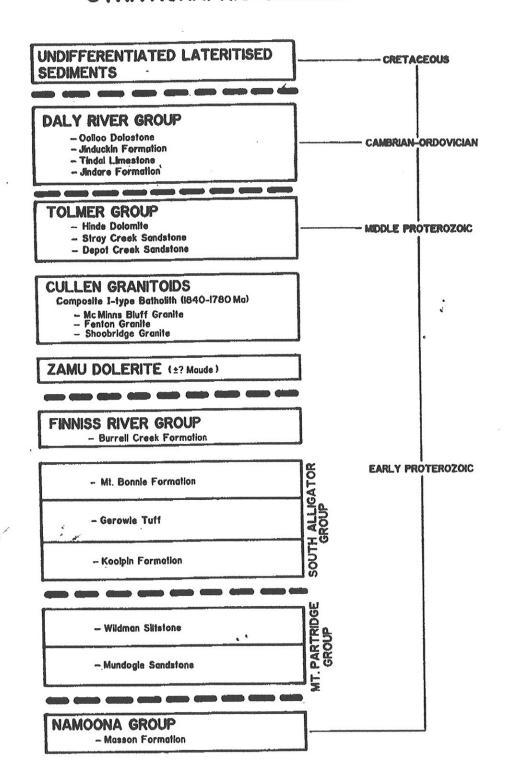
The sedimentary rocks are mainly shale, siltstone, sandstone, conglomerate, carbonate rocks and iron formations. Felsic to mafic volcanism and associated tuffaceous sediments are also present. The sedimentary sequence is intruded by transitional igneous rocks including pre-tectonic dolerite sills and syn to post tectonic granitoid plutons and dolerite lopoliths and dykes. Largely undeformed platform covers of Middle Proterozoic to Mesozoic strata rest on these with marked unconformity. (Figure 3).

Since the Cretaceous the area has generally remained above sea level. The dominant forces which moulded today's landscape were chemical weathering to produce laterite and "cut and fill" modification of the land surface by repeated erosional and aggradational cycles.

## 3.1.2 Structure

During the Top End Orogeny, the Early Proterozoic sediments, volcanics and dolerite were intensely deformed and regionally metamorphosed, resulting in tight to isoclinal folding and extensive faulting. Two phases of folding have been recognised. The older  $F_1$  folds are tight to isoclinal folds with northwest to northeast trending axial planes. A penetrative slatey cleavage is present in pelitic rocks and a less prominent spaced fracture cleavage in sandstone. The younger  $F_2$  folds are widely spaced, open types with east to west trending axial planes. Both folding events pre date granitoid intrusions. (Figure 4).

# STRATIGRAPHIC COLUMN



### REGIONAL STRUCTURE - PINE CREEK INLIER

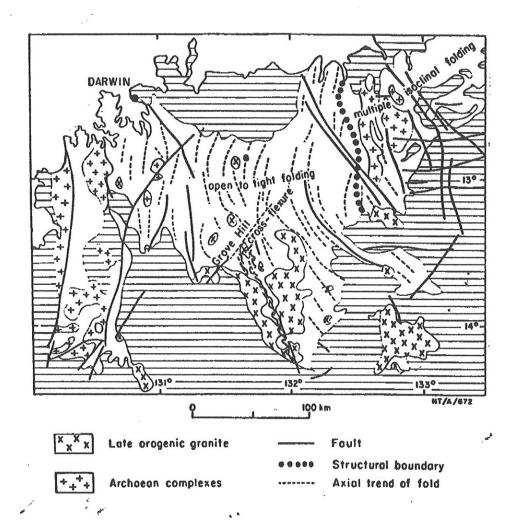


FIGURE 4

#### 3.1.2 Structure (Cont'd)

Regional folding is locally modified by the major SE trending Noonamah – Katherine lineament zone, which consists of a 20 to 25km wide zone of shearing and folding with coincident gravity and magnetic anomalies. In the Pine Creek area the lineament is represented by the Pine Creek shear zone, which contains numerous aligned tight folds and shears and which hosts a concentration of gold occurrences. (Needham and Stuart-Smith, 1984a).

#### 3.1.3 Metamorphism

All the Early Proterozoic rocks have been both regionally metamorphosed to greenschist facies and contact metamorphosed by the syn orogenic to post orogenic granitoids. The regional metamorphic grade ranges from predominantly lower greenschist to amphibolite facies in the NE of Pine Creek Inlier. Table 1 shows the characteristic metamorphic mineral assemblages for various rock types. Regional metamorphism is contemporaneous with regional deformation of the sedimentary pile during the Top End Orogeny. Throughout most of the area, regional metamorphism of pelitic rocks produced fine grained sericite and quartz. Sandstones usually exhibited fractured and/or strained quartz grains and minor sericite, chlorite and muscovite. (Figure 5).

Contact metamorphism largely overprints regional metamorphism indicating synpost deformation. The contact metamorphic aureole is primarily albite-epidote hornfels with a narrower inner continuous zone of hornblende hornfels. K-feldspar-cordierite hornfels is present immediately adjacent to the granitoids. The contact metamorphic aureole varies in width from a minimum distance of 500m to up to 15km - 20km. In general, granitoids with steeply dipping margins will produce a narrower contact aureole whilst relatively shallow, flat lying granitoids will produce a more extensive contact aureole, although the extent of a contact aureole can be significantly wider or narrower under different temperature – pressure regimes.

#### 3.2 Local Geology

The stratigraphy of the Frances Creek area comprises Early Proterozoic metasediments including Mundogie Formation and Wildman Siltstone. Mapping by the BMR indicates significant outcrop of underlying Masson Formation mapped in structural highs and lows and always in valleys. Nowhere in the mapped area did distinct lithologies of Masson Formation outcrop. In broad terms, the Frances Creek stratigraphy consist of uppermost carbonaceous metasiltstones intruded by dolerite sills which corresponds to the Wildman Siltstone. Underlying this sequence are carbonaceous metasiltstones which contain quartzite beds of various thickness. Lower most are carbonaceous sand/siltstones containing coarse ferruginous conglomeratic quartzite units. These underlying units correspond to the Mundogie Formation. The occurrence of the first quartzite horizon in the upper part of the sequence marks the transition from Wildman Siltstone to Mundogie Formation.

This Early Proterozoic metasedimentary sequence is bounded on the southern and eastern side of EL7487 by Early Proterozoic granite intrusives which include the Allamber Springs Granite and the Minglo Granites. (Figure 6).

Regional 1:25,000 scale mapping has defined sheared/faulted and folded metadolerites and schist of the Wildman Siltstone trending NW/SE. Quartz veining is common within localised faults and shears. Mundogie Formation metasediments outcrop along the eastern boundary of the licence area. These comprise NW/SE trending strike ridges of predominantly quartzites interbedded with lesser shale units. Contact of these metasediments and granite occurs within the south eastern graticular block. The contact is faulted and sheared and often contain gossanous haematite/limonite quartz veining within a hornfelsed metasiltstone.

## 5. Exploration:

The main objective of EL25903 was to follow up the alluvial potential of the area and to endeavour to establish the boundaries if the EL in relation to the north eastern part of the original Francis Creek Iron Ore lease and the "Saddle Extended" deposit. Time was spent researching the history of this deposit and securing copies of the registered survey plans of the area. Having obtained the relevant plans further time was spent in the field ascertaining the location of the boundaries of EL25903 in relation to the "Saddle Extended" deposit.

Further exploration work completed comprised a re-assessment of past exploration data and field assessments of these results. This re-assessment consisted of stream sediment sampling of high energy areas within the EL boundaries. Previous activity in the area undertaken by others involved screening stream sediment samples to minus 6mm approximately. This technique may hold advantages for programmes focussed on hardrock targets. However, as this programme sort to locate either alluvial or hard rock resources it was not considered necessary to screen samples prior to pan concentration. In the main the stream sediments sampling results were indifferent. A small number of auger holes were drilled to a depth of approximately 750mm with a hand auger and collect a volume of 2lts. (an ice cream container). This sample was then sized to minus 6mm, washed in a standard steel dish and assessed for grade. There was an attempt in a prior programme to make the technique more accurate by amalgamating the gold in the concentrate with a measured quantity of Mercury. This was a good idea in theory, however, the gold had, in varying degrees, iron staining which prevented the mercury and gold amalgamating. This situation can be remedied by treating the concentrate sample with nitric acid prior to amalgamation. The sample must have all of the nitric acid washed from the sample before adding the mercury. The presence of residual nitric acid dissolved a portion of the mercury and rendered the results useless. Also washing the amalgam free of contamination (concentrate residues) was a time consuming exercise. Further, to obtain accurate weight results the amalgam had to be dry, thus exposing the operator to the potential of inhaling mercury fumes. In all it was decided that whilst the method may not look very sophisticated, the traditional visual assessment of the grade from the dish would be the best. This method also in simple terms replicates the gravity concentration process used to recover alluvial gold. Modern recovery methods using the likes of Knelson Concentrators can (in the hands of a competent operator) recover particles finer than those recovered by the dish and invisible to the naked eye. A simple chemical analyse of the original sample material will not provide a useful result as there can be gold contained in the rock partials which will be rejected in a gravity concentration circuit due to their lower overall SG. The biggest problem faced by the alluvial explorer is sample size. A small amount of course gold can influence the apparent sample grade and make it appear far better than it really is in fact. This situation is also true for hard-rock sampling. A larger sample obviously provides better information but in alluvial terms the notion of, "the bigger the better" should be carried to the extreme.

The "Misses" mine is located approximately 1Km to the east of MLN 770. This area consists of a small shaft sunk on a quartz reef of approximately 1 metre wide. This reef trends in a north westerly direction for about 100 metres and appears to connect with the quartz vein exposed on MCN1645 and 1646. A sample was taken from a small stockpile alongside the shaft and "dollied" on site, then washed in a pan to provide an estimated grade of 2-3g/t Au.

## 6. Further work required:

A small drilling programme is required to test the area of the Misses Mine". The object of this exercise would be to evaluate the potential of this area below the surface and to establish continuity with the vein system contained within MCN 1645 &1646. This programme should be able to be implemented in 2009 field season if the required equipment can be secured.

7. Expenditure:

# NORTHERN TERRITORY EXPLORATION EXPENDITURE FOR MINERAL TENEMENT

Section 1. Tenement type, number and operation name: (One licence only per form even if combined reporting has been approved)			
Туре	Exploration License		
Number	25903		
Operation Name (optional)	Francis Creek		

Section 2. Period covered by this return:				
Twelve-month period:		If Final Report:		
From	19/11/07	From		
То	18/11/08	То		
Covenant for the reporting period:		\$16,500		

Section 3. Give title of	accompanying ted	chnical report:		
Title of Technical Report	xloration Report EL	.25903		
Author	eoff Casey			
Section 4. Locality of	peration:			
Geological Province	ine Creek			
Geographic Location	Francis Creek			
Section 5. Work prog	am for the next twe	elve months:		
Activities proposed (p	ease mark with an X	orilling and/or costeaning		
X Literature review	A	Airborne geophysics		
Geological mappin		Ground geophysics		
Rock/soil/stream se sampling	diment (	Other:		
Es	mated Cost:	\$10,000		
Section 6. Summary	f operations and e	xnenditure:		
Please include salaries administration and over done for the appropriate	wages, consultants neads under the app subsections with a l columns to indicate	fees, field expenses, fuel and transport, propriate headings below. Mark the work in "X" or similar, except where indicated. The the data supplied with the Technical		
		elevant, these may be discussed in Section 7):		
<ul><li>Insurance</li></ul>	<ul> <li>Transfer costs</li> </ul>	The Control of the Co		
<ul> <li>Company Prospecto</li> </ul>		Meetings with Land Councils		
<ul> <li>Rent &amp; Department Fees</li> </ul>	<ul> <li>Legal costs</li> </ul>	<ul> <li>Payments to Traditional Owners</li> </ul>		
<ul><li>Bond</li></ul>	<ul> <li>Advertising</li> </ul>	<ul><li>Fines</li></ul>		

Exploration Work type	Work Done (mark with an "X" or		Expenditure	Data and Format Supplied in the Technical Report	
	provide details)			Digital	Hard copy
Office Studies					
Literature search	Х		\$4,500		
Database compilation					
Computer modelling					
Reprocessing of data					
General research	Х		\$1,000		
Report preparation	X		\$1,000		
Other (specify)					
	Subtotal		\$6,500		
Airborne Exploration Surkins)	veys (state	line			
Aeromagnetics		kms			
Radiometrics		kms		-	
Electromagnetics		kms			
Gravity		kms			
Digital terrain modelling		kms			
Other (specify)		kms			
	Subtotal		\$		
Remote Sensing					
Aerial photography					
LANDSAT					
SPOT					
MSS					
Other (specify)					
(opoolija)	Subtotal		\$		
Ground Exploration Surveys					
Geological Mapping					
Regional					
Reconnaissance					
Prospect					
Underground					
Costean					
Ground Geophysics					
Radiometrics					
Magnetics					
Gravity					
Digital terrain modelling					

6.

Exploration Work type	Work Done (mark with an "X" or		Expenditure	Data and Format Supplied in the Technical Report		
	provide deta	ils)		Digital	Hard copy	
Electromagnetics						
SP/AP/EP						
IP						
AMT/CSAMT						
Resistivity						
Complex resistivity						
Seismic reflection						
Seismic refraction						
Well logging						
Geophysical						
interpretation						
Petrophysics						
Other (specify)						
Soil Rock chip Laterite Water	X		\$2,500			
Biogeochemistry						
Isotope						
Whole rock						
Mineral analysis						
Laboratory analysis (type)						
Petrology			4.000			
	X	,	1,200			
Travel to site	· volonotion	1 8	\$11,200			
Ground E Subtotal	-					
Ground E Subtotal Drilling (state number	of holes & me					
Ground E Subtotal Drilling (state number Diamond	of holes & me	metres				
Ground E Subtotal Drilling (state number Diamond Reverse circulation (RC)	of holes & me holes holes	metres				
Ground E Subtotal Drilling (state number Diamond Reverse circulation	of holes & me	metres				

TOTAL EXPENI	DITURE		\$17,700
	Subtotal		\$
Other (specify)			
Monitoring			
Rehabilitation			
Track maintenance			
Access and Rehabilitation			
	Subtotal		\$
Other (specify)			
Mineral processing			
Underground development (describe)			
Ore reserve estimation			
Mill process testing			
Bulk sampling			
Costeaning/Trenching			
Other Operations			
	Subtotal	L	\$
Other (specify)	holes	metres	
Auger	holes	metres	

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Section 7.	Comments on yo	r exploration activities:
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		•
Loortify that	the information so	tained herein, is a true statement of the operations
		ended on the above mentioned tenement during the
period specif	fied as required un	der the Northern Territory Mining Act and the
Regulations		
X I have at	tached the Techni	al Report
1. Name:	Geoff Casey	2. Name:
i. Name.	Geon Casey	z. Name.
Position:	Director	Position:
Signature	Selvey.	Signature:
Date:	16/04/09	Date: