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## ASX ANNOUNCEMENT

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### PRELIMINARY CORE ANALYSIS SURPRISE-1 - A PLEASANT SURPRISE

#### Central Petroleum's Surprise-1 demonstrates potential ability to flow oil

Central Petroleum Limited (ASX:CTP) ("Central"), as Operator is pleased to provide the following update for core analyses on core taken from the Surprise-1 well.

Analysis commenced prior to the seasonal Christmas drilling break has produced very positive news for Central Petroleum. At the Surprise-1 exploration well, a 9m core was cut over the interval 2546.2 m to 2553.0 m to investigate oil and gas shows intersected in the top of the lower Stairway Sandstone.

The core did indeed reveal excellent live oil shows indicating possible high oil saturations. Small quantities of oil were also recovered from the mud system. Although the absolute oil saturation of the formation remains unknown due to probable oil losses during core retrieval, transport and storage coupled with filtrate invasion, the permeabilities of the cored zone indicate the possibility of as much as approximately 1,000 barrels of oil per day being available from the cored zone alone. Porosities and permeabilities were measured from the actual core itself and as such are relatively accurate while absolute oil saturations can only be estimated or assumed from visual observation until the zone is re-entered and electric logs, pressure and flow data are recorded.

This news was welcomed at CTP, which had suspended drilling in mid December 2010, following a problem with the drilling rig just after cutting the core in the lower Stairway Sandstone.

"Although this preliminary interpretation requires further validation by electric logging and other reservoir analyses, the result provides more incentive to go back to Surprise-1 and to test the cored zone and maybe other deeper zones in the Lower Stairway, the Horn Valley Siltstone and of course the main target zone, the deeper Pacoota Formation." said Managing Director John Heugh. "Both the high likelihood of an oil accumulation at Surprise-1 and the viable reservoir quality encountered at a depth of just over 2,500 mRT (depth in metres from the rotary table) are both seminal results strongly expanding the prospectivity of the Johnstone Trough and the general western Amadeus Basin."

Before the interruption, another 400m plus of well drilling at Surprise-1 had been originally planned. This is planned to recommence later this year, and the Company hopes to demonstrate the viability of this and perhaps other prospects by more oil well drilling in 2011.

Average permeability of 295 milliDarcies (mD) was recorded in core analysis from one zone of the Surprise-1 core and porosities generally averaged 5-8% throughout the core. The interpretation of potential fluid flow rates has been validated by independent consulting group, RPS Energy. Clearly permeabilities and porosities have not been profoundly adversely affected by depth which is encouraging for the deeper drilling being planned. The original level of oil saturation in the core can not be accurately determined due to filtrate invasion and losses throughout core retrieval, transport and storage but onsite and laboratory observation indicates that a high level of oil saturation is likely.

#### Oil Shows in Lower Stairway Sandstone Core at Surprise-1: summary.

- 1) Preliminary analysis suggests, assuming that the reservoir is wholly within an oil leg, that this zone could produce 970 Bopd using a pump and 420 Bopd on natural flow.

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Fracture stimulation and lateral drilling may considerably enhance deliverability. These estimates are based on several assumptions concerning the reservoir extent and fluid properties which remain the subject of further study and analysis (See assumptions detailed in Appendix 1).

- 2) Abundant fluorescence occurs throughout the sand section and the bottom end of the core showed c.100% natural fluorescence suggesting that the oil shows may continue deeper in the Lower Stairway Sandstone section.
- 3) The entire core has a strong hydrocarbon odour but the darkest, most pervasive oil staining occurs in zones 1 and 3 (see below) which records permeabilities up to 162 mD and 420 mD respectively.
- 4) Fractures (largely parallel to bedding) appear to be delivering a light oil which soaks the core in zones of fracturing. The unfractured core in these generally fractured zones also appears to be saturated with oil with ubiquitous fluorescence. When rock chips are placed in solvent a slow cut is obtained probably indicating micropermeability in the tighter rock but two porous zones with good permeability were also encountered (Zones 1 and 3 below). Hydrocarbons are definitely present in the tighter unfractured rock and could contribute considerable volumes of hydrocarbons into the fracture network and aforementioned high permeability zones which should provide the main drainage conduits.
- 5) Note that such fractures may, although possibly providing foci for fracture stimulation and/or lateral drilling techniques, have limited deliverability in any possible production as they are unlikely to be fully open in the reservoir. Such fractures in order to remain fully open, must support the full overburden load which seems an unlikely scenario unless the reservoir is highly overpressured.
- 6) Although these estimates were derived using cautious pseudo steady state methods which discount early flush production rates the duration of such flow rates does depend on the hydrocarbon volume intersected by the well bore. If this volume is more limited in some fashion than the assumed basis then naturally the rates cited will be of short duration. Conversely in favourable circumstances early production rates may continue for a longer time.

The core comprises mainly fine to very fine, occasionally medium grained sandstone with fractures running sub-parallel to bedding. The sandstones include rare siltstone laminae and are generally well sorted and commonly bioturbated. Porosities fall between 4-11% and are generally in the range of 5-8%. Permeabilities lie between 0.1 and 420 mD. Reservoir characteristics of the cored zones are summarised below :

Zone	Av.Porosity %	Permeability mD	Lithology
<b>Zone 1</b> 2,546.0-2,546.6m	9.1	145.0	Sandstone, bioturbated, fractures
<b>Zone 2</b> 2546.6-2,550.1m	5.4	3.0	Sandstone, bioturbated, fractures
<b>Zone 3</b> 2,550.1m-2,551.2m	8.5	295.0	Sandstone, massive to thinly bedded,fractures.
<b>Zone 4</b> 2,551.3m-2,554.3m	9.1	0.78	Sandstone, laminated to thinly bedded, bioturbated,fractures

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Fractures: Fractures developed sub-parallel to bedding were encountered in the following zones and appear to form conduits for oil migration ( 2546.40 – 2547.40 m, 2548.4 – 2550.15 m, 2550.75 – 2551.15 m, 2552.0 – 2552.38 m). The fractures appear to be open and parallel to sedimentary bedding in the rock which is probably a shoreface sand with wide lateral extent in the basin. It is probable the highly porous zones in the reservoir extend over the Surprise structure and it should be noted good oil shows were recorded in the base of the core, and thus the exact vertical extent of the reservoir/oil leg remains uncertain.

#### Appendix 1 Parameters assumed for the Pseudo Steady State Calculation

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Net $\theta$	7.3	%
Net k liquid	46.9	mD
Net h	22.2	ft
kh liquid	1039.8	mD.ft
<b>Fluid data</b>		
API	24.6	deg
$\mu$	1.35	cP
Bo	1.22	v/v
<b>Formation data</b>		
skin	1.0	
T	189.5	Deg F
P	3765.2	psia
DeltaP	2000.0	psia
Pwf	1765.2	psia
re	1000.0	ft
rw	0.33	ft



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*NOTICE: The participating interests of the relevant parties in the respective permits and permit applications which may be applicable to this announcement are:*

- EP-82 (excluding the Central subsidiary Helium Australia Pty Ltd ("HEA") and Oil & Gas Exploration Limited ("OGE") (previously He Nuclear Ltd) Magee Prospect Block) - HEA 100%
- Magee Prospect Block, portion of EP 82 – HEA 84.66% and OGE 15.34%.
- EP-93, EP-105, EP-106, EP-107, EP 115, EPA-92, EPA-129, EPA-131, EPA-132, EPA-133, EPA-137, EPA-147, EPA-149, EPA-152, EPA-160, ATP-909, ATP-911, ATP-912 and PELA-77 - Central subsidiary Merlin Energy Pty Ltd 100% ("MEE").
- The Simpson, Bejah, Dune and Pellinor Prospect Block portions within EP-97 – MEE 80% and Rawson Resources Ltd 20%.
- EP-125 (excluding the Central subsidiary Ordiv Petroleum Pty Ltd ("ORP") and OGE Mt Kitty Prospect Block) and EPA-124 – ORP 100%.
- Mt Kitty Prospect Block, portion of EP 125 - ORP 75.41% and OGE 24.59%.
- EP-112, EP-118, EPA-111 and EPA-120 - FOG 100%.
- PEPA 18/08-9, PEPA 17/08-9 and PEPA 16/08-9 - Central subsidiary Merlin West Pty Ltd 100%.
- EPA-130 - MEE 55% and Great Southern Gas Ltd 45%
- EL-27094, EL-27095, EL-27096, EL-27097, EL-27098, EL-27099, EL-27100, EL-27101, EL-27102, EL-27103, EL-27104, EL-27105, EL-27106, EL-27107, EL-27108, EL-27109, EL-27110, EL-27114, EL-28095, EL-28096, EL-28097 and ELAs 28468 and 28472 - Central subsidiary Merlin Coal Pty Ltd 100%("MEC").

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As new information comes to hand from data processing and new drilling and seismic information, preliminary results may be modified. Resources estimates, assessments of exploration results and other opinions expressed by CTP in this announcement or report have not been reviewed by relevant Joint Venture partners. Therefore those resource estimates, assessments of exploration results and opinions represent the views of Central only. Exploration programmes which may be referred to in this announcement or report have not been necessarily approved by relevant Joint Venture partners and accordingly constitute a proposal only unless and until approved. All exploration is subject to contingent factors including but not limited to weather, availability of crews and equipment, funding, access rights and joint venture relationships.

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