

Annual General Meeting

16 November 2023



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ard- ends, n ner iide	Contingent and Prospective Resources: Unless otherwise specified, the information that relates to Contingent Resources and Prospective Resources for Melbana is based on, and fairly represents, information and supporting documentation compiled by Mr. Peter Stickland, who is a Director of the company and has more than 30 years of relevant experience. Mr. Stickland is a member of the European Association of Geoscientists & Engineers and the Petroleum and Exploration Society of Australia. Mr. Stickland consents to the publication of the resource assessments contained herein. The Contingent Resource and Prospective Resource estimates are consistent with the definitions of hydrocarbon resources that appear in the Listing Rules. Conversion factors: 6 Bscf gas equals 1 MMboe; 1 bbl condensate equals 1 boe; "MMstb" means million stock tank barrels of oil.
e of	Prospective Resources Cautionary Statement (PRCS): The estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Future exploration appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons.





Index

- 1. Corporate, finances & the year in review
- 2. Operations update
 - Cuba

Australia

- 3. HSE & community activities
- 4. Summary







Corporate Aspects



Corporate Overview

As at 15 November 2023

Company Information

Objective	Melbana Energy Limited		
Listed	1998		
Exchange	ASX : MAY		
Shares on issue	3,370 million		
Market Cap	\$216 million		
Cash 30 Sept 2023	\$31.2 million		

Shareholders

Board & Management	7.9%
Тор 20	24.4%

Andrew Purcell

Executive Chairman

Investment banking		
(Credit Suisse,		
Macquarie Bank),		
Australia and Hong		
Kong. 25 years of		
experience in resources		
banking, cross border		
financing, commodity		
hedging and corporate		
turnarounds.		

Michael Sandy

40 years oil and gas exploration experience, managing assets in PNG, Asia the Middle East and the USA. 20 years as a public company director involved in numerous acquisitions and divestments.

Peter Stickland

Technical Director

25 years global experience in oil and gas exploration commencing with BHP Billiton. CEO of Melbana Energy (2014– 2018) and Tap Oil (ASX: TAP, 2008–2010). APPEA Board member (2009-2017).

29-year career with ExxonMobil in a variety of exploration and appraisal roles. Responsible for generating many new exploration initiatives internationally resulting in several significant discoveries.



Non-Executive Director

Dean Johnstone Senior Geoscientist

30 years experience in oil and gas exploration, development and production with ExxonMobil and Delhi Petroleum. Mature field opportunity experience in Canada, PNG and SE Asia.

Chris Thompson Chief Operating Officer

30 years oil and gas experience spanning technical, operating and executive leadership in Australia, USA, SE Asia, UK and the MENA. Extensive experience delivering safe and efficient operations.

Ken Hendrick Implementation Manager

Decades of experience in senior project management roles safely executing complex multi-discipline developments for the resources sector, particularly in the offshore oil and gas industry.

Errol Johnstone Chief Geoscientist

Dr. Chris McKeown **Chief Commercial Officer**

26 years oil and gas experience, and executive roles in Europe, the Gulf of Mexico, Southeast Asia, New Zealand and Australia. Experience in asset management, new country entries and deal making.

Dr. Duncan Lockhart **Exploration Manager**

Extensive O&G experience spanning over 32 years in Australia including with BHP, Woodside, OMV, Central Petroleum, Senex and Drillsearch.

Dr. Rafael Tenreyro Country Manager, Cuba

40 years experience in Cuban Oil industry in exploration projects including the discovery, evaluation and development of multiple fields. Former Exploration Director of National Oil Company of Cuba.





Our team is growing



Dr. Duncan Lockhart **Exploration Manager**

appointed Q3 2022 to leverage the abilities of Melbana's first class geoscience team



Uno Makotsvana **Chief Financial Officer**

appointed Q4 2022 to build momentum in funding and developing assets



Cate Friedlander General Counsel

appointed Q4 2022 to manage contractor relations, regulatory compliance and partner communications





Dr. Chris McKeown **Chief Commercial Officer**

appointed Q2 2023 to develop strategy, build relationships and deliver value-accretive outcomes



Chris Thompson **Chief Operations Officer**

appointed Q4 2023 to develop assets and bring on oil production in a safe and efficient manner



6

Share Price Performance







7

Our reputation is growing

Global Energy Week

London, June 2023

Presented at prestigious conference attended by heads of state, oil ministries and investors

GeoExpro Article

London, August 2023

Provided input into article on GeoExpro; a geoscience magazine with a global reach

RUI Good Oil Conference

Perth, September 2023

Presented and had booth at very well attended event, with ASX energy companies, brokers and investors









Keeping an eye on Cuba activity in Cuba has been a stop-start process, due to

sociated with the US Embargo. However, with s ystem, coupled with more modern explo being introduced, the future looks excitin

14 | GEO EXPRO 4-2023

ASX-Listed Melbana Energy pre-qualified as an operator in Cuba in 2013 resources. Melbana hope that successful Ian Cross - Mryte & Co





Our reputation is growing

SEAOCC Conference

Darwin, September 2023

Attended at NT focused event to talk to explorers, regulators and offtakers about the Hudson opportunity

Scout Meetings

Perth, Singapore and London

Regional reps attending scout meetings on our behalf; presenting our opportunities and scouting for deals in the Latin Americas, Australasia and SE Asia oil and gas markets

Active Media Interest

#ausbiz, InvestorStream, Proactive **Investors and AFR**

Independent research initiated

Evolution Capital, Petra Capital and PAC Partners commenced coverage









er oil (12° AP

Structural Interpretation – Correlation between Alameda-1 and Alameda-2





lelbana Energy Limited



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Transformational Year

A lot has happened since last year's AGM



Corporate

Strategy focused to become
\$1b company

within 3 years

- \$31m cash in bank fully funded for appraisal drilling
- Experienced General Counsel, Exploration Manager, CFO, CCO and COO appointed



Cuba

- Alameda-2 confirms shallow, high quality development project
- Alameda-2 early production project ironing out logistics
- Alameda-3 deep well targeting 179 million barrel best estimate prospective resource drilling next





Australia

- Billion-barrel Beehive prospect to be drilled as early as 2024 by major
- Adjacent billion-barrel Hudson prospect farm-out project underway
- AC/P70 interpretation project underway





More to come



Next six months

- Alameda-2 production to continue
- Alameda-3 appraisal well
- Block 9 shallow resource update
- Block 9 shallow project planning
- Beehive-lookalike farmout project



Further six months

- Alameda-3 deep results interpreted
- Block 9 deep resource update
- Block 9 shallow project online
- Block 9 data acquisition
- Block 9 development well drilling
- 3D seismic planning in Australia





Eighteen months and beyond

- Block 9 field development
- Block 9 development wells
- Block 9 further exploration
- Beehive drilling results known







Operations Update

CUBA



Oil discovered to date

Alameda-1 (TD of 3,916 mMD) intercepted three geologically independent reservoirs, each with moveable oil under high pressure, that were subsequently independently assessed¹ to contain oil in place of over 5 billion barrels

Total 267	Amistad 1, 2 & 3 88	Alameda 109	Marti 7(
million barrels	million barrels	million barrels	million

Prospective Resources as at 1 August 2022* (gross unrisked, millions of barrels)

Objective	Low	Best	Mean	High
Amistad 1, 2 & 3	30	88	119	240
Alameda	34	109	148	297
Marti	21	70	95	197
TOTAL	85	267	362	734

¹ McDaniel & Associates, Competent Persons Report August 2022 *See Prospective Resources Cautionary Statement on page 2





Original 88 mmbbl prospective resource figure for the Upper Sheet Amistad Units 1, 2 and 3 will be re-evaluated in light of the outstanding results of Alameda-2.

Alameda-3 will target the 179 mmbbl resource identified in Alameda-1











2023 appraisal operation success

First Appraisal Well Alameda-2

- Goal was to log, core and test all three units of the Amistad formation, intersected during the drilling of Alameda-1 between 450m and ~2,000m, targeting 88 million barrels of Prospective Resource *
- Alameda-2 drilling commenced June 2023 and reached TD (1975m) ahead of schedule on 31 July 2023
- Results on following slide

Second Appraisal Well Alameda-3

- Drilling to commence following Alameda-2
- Test the Alameda and Marti formations
- 179 million barrels of Prospective Resource*

Same project management team and same contractors, thus leveraging the hard-earned experience they gained drilling Melbana's first two exploration wells in Cuba

* Gross unrisked best estimate Prospective Resource, See PRCS on page 2





Alameda-2 drilled and completed in Unit 1B. Early production brought online in October.



Outcome: we have a project in the upper sheet



Oil in the tanks from DST-4 (Unit-1B)

Equipment for early production from Alameda-2 Unit 1B



First tanker of oil from DST-4 (Unit-1B)









Upper Sheet project runway



Upper Sheet Marketable Oil

- Unit 1B: 19° API, 30cP, low S oil
- Unit 1B: 1900 bbl/d flow rate (max)
- Qualities positively impact recovery
- Unit 1A & 3 would add to volumes
- Extended test ironing out logistics



Upper Sheet > 88mmbl ??

- 88 mmbbl booked on 100m Net Pay
- Net Pay now 615m (inc. fractures)
- Booked resource on 5% recovery
- Recovery factor review underway
- Perforated <20% Net Pay interval</p>
- Volumetric review underway





Upper Sheet Cashflow

- Oil properties of exportable grade
- Goal to reach 5000 bbl/d in 2024
- Development planning underway
- Extensive drilling potential runway
- Facilities & export review underway





Alameda-3 to be drilled by same team/rig as Alameda-2









Alameda-3 time vs depth plan



Alameda-3 Time Estimate

Depth (m)

ž





Installed after setting 18-5/8" casing to drill 17-1/2" section

Upgraded wellhead

Built to handle 18 5/8" casing at up to 10,000 psi











Alemeda-2 Unit 1B early production findings

To understand

Properties of the reservoir

Pressure support

Max and sustained flow rates

Iron out production logistics

Develop commercial contracts



Findings so far

- Produced for a total of 10 days for data on reservoir and logistics performance
- Flow peaked at 1,183 bopd
- 20 tanker loads from early production of Unit 1B
- Flow intentionally choked back for constant rate
- Flow rate optimised for collection of reservoir data
- Well shut in to monitor pressure build up
- Data used for field development planning





Alameda-3 drilling and testing plans

- Planned as a twin of the original Alameda-1 well
- Drilled parallel from the same pad to the NE
- Surface location offset 25m to the SE
- Kick off at ~1560mMD
- BH location offset approx 60m to the E (well collision avoidance)
- TD 3835mMD, ~ 40mTVD above high pressure zone seen in Alameda-1











- Run and Cement 13-3/8" Casing to isolate higher
 pressure
 intervals from
 shallower zones
- Once 13-3/8"
 casing cemented production can
 continue in
 Alameda-2









Drill 17-1/2" Hole to top of Unit-3







Drill ~100m into Unit-3 and run Test-1 in open hole











13-3/8" Casing Shoe







Set 9-5/8" Casing to secure the well and protect intervals already drilled from higher pressure





Alameda Reservoir





Drill 8-1/2" hole
 to base of
 Alameda
 Reservoir Interval







 Set 7" Liner with open annulus and external casing packers to isolate potentially 3 zones within the Alameda Reservoir Interval













Set 4-1/2" Slotted liner over Marti Reservoir Interval
DST-1 Open Hole

13-3/8" Casing Shoe







 Run Test-2 in the Marti Reservoir
 Interval through the slotted liner







Set a removable
 bridge plug to
 isolate Marti
 Reservoir Interval
 from lower
 pressured
 Alameda
 Reservoir Interval









Provision to perforate and test up to 3 Alameda Reservoir Interval zones either separately or comingled depending on well results















Field Development Planning



Forward plan



Step 1 **Studies Underway** 2023

Step 2 **Field Appraisal** 2023 / 2024



- Geological, engineering, commercial & marketing studies and planning
- Work with regulator to facilitate oil exports
- Continue production and discussions with oil offtakers



- Appraisal drilling (including Alameda-3), integrate results into reserves
- Further technical data acquisition and integration
- Continue to bring oil production to market





Step 3 **Near term development** 2024 / 2025



Step 4 **Full field development** 2025 / 2026



- Convert appraisal wells to production
- Technical data acquisition, interpretation and integration
- Drill development wells and bring oil to market



- Drill further development wells to increase production
- Define exploration targets
- Upgrade facilities as required to increase to plateau production

















Amistad Unit 1B conceptual development *





* Conceptual plan, assumes 100% working interest, JV and regulatory approval




Unit 1B oil qualities export grade

Next six months

- Unit 1B favourable characteristics of lighter density, low sulphur and low viscosity
- Oil characteristics study underway to understand price against regional oil price markers
- Discussions underway with potential oil buyers
- Similar oils in region include, Escalante, Castilla, Merey, Marlim & Maya.
- Talking to oil traders to investigate potential to pre-fund development

Test	Unit	Results	✓ or 🗙
ΑΡΙ	API	18.7	\checkmark
Sulphur	% (m/m)	0.0	\checkmark





API Gravity V Sulphur Content

https://www.mckinseyenergyinsights.com/resources/refinery-reference-desk/crude-grades/



Drilling pad locations





Pathway to market being clarified

- Utilise facilities at Alameda
- Existing trucking from Alameda to Cardenas tank farm (CTF)
- Conclude exclusive storage at CTF
- Pre-FEED study of pipeline routes to CTF
- Pre-FEED study of pipeline from Alameda to Port Matanzas
- Batch from CTF to Matanzas using existing pipeline
- Barge & tanker potential from Majaguillar to Matanzas
- Potential for installing tanks at Matanzas





Oil export options

Existing Matanzas Supertanker Port

- Import and export facilities
- Deep water channels
- Situated at the mouth of the River Yumuri and River San Juan in Matanzas Bay, northern Cuba
- Port is formed by an inlet length of 8km and a width of 6km
- Deep water is located 120m from shore;
- Depth in the fairway is over 180m
- Approx 40 vessels visit the port annually
- Max size: LOA 295m, draught 17.0m, 150,000DWT











Health Safety Environment & Community



Alameda-2 HSE summary

- No LTI
- 1 environmental recordable incident (oil spillage <20 liters)
- Timely disposal of cuttings and residual water/mud and oil
- Heat stress awareness and work practices implemented
- Good crew participation in JSA's and safety meetings
- Safe well test operations and oil tanker loadings (first production operations for JV)

Item	Unit	Weekly	Total	Item	Unit	Weekly	Total
Safety Induction	No. Person	9	61	Man hours (Melbana)	Hrs	2,856	17,700
Job Safety Analysis (JSA)	No.	16	132	Man hours (Sherritt)	Hrs	4,728	31,692
Permit to Work (PTW)	No.	5	36	Total Man hours at rig	Hrs	7,584	49,392
Tool Box Talk (TBT) / Safety Meeting	No.	19	68	Fatality	No.	0	0
Emergency Drill	No.	5	19	Lost Time Injury Case (LTI)	No.	0	0
Hazard Hunt / Inspection	No.	12	70	Medical Treatment Case (MTC)	No.	0	0
Eye Washer Inspection	No.	6	23	Restricted Work Case (RWC)	No.	0	0
				Total Recordable Case (TRC)	No.	0	0
Alameda-2 Final			First Aid Case (FAC)	No.	0	0	
				Road Traffic Incident	No.	0	0
				Asset Damages	No.	0	0
				Environmental Spill	No.	1	1
	36%			Social Security Incident	No.	0	0
64%				Near Miss (NM)	No.	1	1
0470				High Potential Incidents	No.	0	0
				STOP Cards	No.	8	11









HSE approach

We promote self-care in both permanent and temporary workers, providing PPE according to their tasks.



We promote self-care in both permanent and temporary workers, we give great value to safety conversations tool box task, safety meetings, pre-job meetings as a work control mechanism, HSE Melbana safety briefing, HSE trainings. PPE according to their tasks.







Workshop of Risk identification





Emergency Response Plan training



Melbana community connections long lived

Knowledge and local support

- Topographic surveys of roads for maps for municipality
- Investment in natural channels / drainage in the area
- Use the local Research Institutes to undertake environmental studies

Adaptation and improvement of rural roads

- Contribution of rock material for local road repairs
- Road maintenance

Relationships with authorities

- Socialization of Melbana projects with local Marti authorities
- Effective communication with communities before, during and after drilling projects

Supply of goods

- Focus on local hiring, goods and services, e.g., installation of fences, control of bee populations and supply of food from local "Guajiros"
- Funding vegetation pruning, fence build, drivers, machinery operators
- Guajiros supporting location / evaluation of new locations











Operations Update AUSTRALIA



Australia optionality

WA-488-P

Beehive Prospect

Up to
1.4 billion barrels

of oil prospect*

to be drilled in 2024 **

Melbana retains contingent royalty interest of US\$10 million per each 25 mmboe produced, with no funding commitments

AC/P70

Reprocessing existing 3D seismic, interpretation, mapping and farmout prior to well in February 2027

WA-544-P & NT/P87

Hudson opportunity

Melbana retains 100% of adjacent Beehivelookalike (Hudson Prospect) with up to

1.2 billion barrels recoverable***

Melbana currently seeking farminee(s) to fund work programme (3D seismic survey and contingent drilling option)







Melbana has no liability for exploration drilling in WA-488-P and would receive significant cash payments and royalties should it be successful.





Summary

- Melbana has a first-class geoscience team with record of advancing new ideas
- Melbana has a management team that has delivered valuable projects
- Melbana's operations team has proven it can execute drilling programs.
- Melbana is funded for Cuba appraisal drilling with no commitments for Australia drilling
- Alameda-2 proved up project in the Upper Sheet with potential for volume uplift
- Alameda-3 is aimed at proving up significant high quality oil resource
- Material interest in outcome of the Beehive well, to be drilled as early as 2024, targeting 1.4 billion barrels of Prospective Resource** (100%, high estimate)
- Melbana seeking to farm out its adjacent Hudson Carbonate Platform opportunity that could host up to 395 mmbbl*** or 2,034 bcf***
- Melbana is well placed for a transformative 2024







47

Questions?



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