

## **QUARTERLY REPORT**

For the period ending December 2023

## **HIGHLIGHTS**

**Gulf Energy Limited (ASX: GGE) (Grand Gulf or the Company)** is pleased to provide shareholders with the following summary of its activities during the December 2023 quarter.

## Jesse-1A Flows 1 Million Cubic Feet Gas Per Day1

- Upper Leadville reservoir flowed helium gas to surface at a material raw gas rate of 1 million cubic feet per day (mmcfd), during comprehensive flow-testing of the Jesse-1A well.
- Significant Jesse-1A results demonstrate reservoir quality with measured helium concentrations trending up from  $0.78\%^2$  consistent with the previously measured 1% helium from a downhole sample.
- Based on the positive flow-test results, project manager Walsh Engineering and Production (Walsh), citing the current Jesse-1A wellbore configuration (well was suspended for approx. 20 months in an open-hole configuration post acid stimulation), recommended Jesse-1A be side-tracked to optimize production flow rates.
- Jesse-1A is planned to be sidetracked for casing, completion and focused stimulation ahead of production in early 2024.



Figure 1: Jesse-1A flare-stack venting reservoir gas and helium to surface during flow-testing

 $<sup>^{\</sup>rm 2}$  ASX Announcement 11 December 2023 – Jesse-1A Flows Helium to Surface



 $<sup>^{</sup>m 1}$  ASX Announcement 21 December 2023 – Jesse-1A Flows 1 Million Cubic Feet Gas Per Day



## Halliburton Optimizing Jesse Completion Design3

- Halliburton, a leading international provider of upstream exploration and production services, has been engaged to design and optimize completion and stimulation activities at the Jesse helium prospect.
- Halliburton is an industry leader in carbonate completion and acidization stimulation with previous experience in the Paradox basin.
- Walsh and Halliburton have previously collaborated to complete four wells in the Paradox basin in 2022. The wells have outperformed expectations and exceeded typical production profiles of wells using traditional completion methodologies used in the past.
- Halliburton has also been involved in numerous completion activities in multiple helium fields in the region including the prolific Tocito Dome helium field.
- Rock cuttings from Grand Gulf's Jesse-1A helium discovery have been transported to Halliburton for dynamic solubility testing in conjunction with x-ray diffraction (XRD) analysis, to formulate and optimize the acid stimulation programme for the forthcoming Jesse-1A sidetrack and the Jesse 3 well.
- Effective stimulation provides further rate upside, both connecting the wellbore to near wellbore
  dolomitic permeability and removing drilling induced formation damage, with Halliburton experience
  in the region.

## Leading North American Drill Engineering Group Appointed<sup>4</sup>

- Leading North American upstream oil and gas consultancy Walsh Engineering LLC (Walsh) to provide drilling, completion, stimulation, engineering and wellsite management support for its forthcoming Jesse development programme.
- Walsh are located out of Farmington, New Mexico and with over 50 years operating oil, gas and helium assets in the Four Corners area.
- Walsh Red Helium Project Manager Kyle Mason brings over 16 years of upstream E&P industry experience in production, completions design, field supervision, and field development, including eight years with Halliburton in the Rocky Mountain region.
- Walsh have the requisite in-depth knowledge and relevant experience in drilling, completing and testing helium wells in the precise area of the Paradox Basin where the Red Helium Project is located, and have access to an extensive network of contractors both local and over greater North America.
- Walsh have managed multiple successful helium projects in the Four corners area including the prolific Tocito Dome helium field.

## Oil Production Returns to pre-Workover Levels

 The Hensarling #1 well (Desiree Field) produced a total for the period of 4,393 barrels of oil and 1,762 barrels of working interest oil to GGE with production returning to oil production levels pre-workover in the June 2023 quarter.

 $<sup>^4</sup>$  ASX Announcement 10 October 2023 – Leading North American Drill Engineering Group Appointed



<sup>&</sup>lt;sup>3</sup> ASX Announcement 30 October 2023 – Halliburton optimizing Jesse Completion Design



## **About the Red Helium Project:**

The Red Helium Project provides exposure to the burgeoning helium industry in a prolific proven helium-producing region, the Four Corners Area, that comprises:

- 250,713 acre area of mutual interest (AMI) with over 21,000 acres (private leases/Utah state leases) leased
  in drill-friendly Utah in the heart of the most prolific helium-producing region in the world;
- Geologically analogous to Doe Canyon Field. Doe Canyon is situated 15 miles due east of the Red Helium project, and is currently producing approximately 10,700,000 cubic feet of helium per month, the bulk of which comes from only 7 wells. Air Products (market cap US\$70b) is processing the helium, and it is anticipated that Doe Canyon will ultimately produce 3-5 billion cubic feet of helium. With additional drilling, this resource figure could increase;
- 315 kms of well-placed 2D seismic has been acquired and reprocessed identifying multiple drill targets and confirming a structural trap 4-5 times larger than the Doe Canyon Field;
- Six historic wells exclusively targeting hydrocarbons were drilled within the project AMI, proving trap, seal, reservoir presence and gas charge and a working helium system, to differing degrees within each prospect. Several wells tested non-flammable gas, the only two analysed for helium confirmed helium presence; and
- 20 miles south of and connected by pipeline to the operational Lisbon Helium Plant (99.9995% purity).

Since acquisition in September 2021 the company has continued to mature the project, including the following milestones:

- Prospective gross project unrisked P50 helium resource evaluation of 12.7 billion cubic feet of helium;
- Jesse discovery (Jesse-1A), generally exceeding pre-drill expectation and highlights including:
  - Helium grade of up to 1%. An analogous Doe Canyon well at 1% helium and a raw gas rate of 20 million cubic feet per day would produce 200 thousand cubic feet of helium per day;
  - Productive and well pressured reservoir at 2465 psi on trend with virgin pressure at the neighbouring Doe Canyon.
  - Independent Auditor confirms Jesse helium discovery and maturation from Prospective to Contingent Resource category
    - over 200 feet of gross gas column; and
    - 101 feet of net pay;
- Helium Offtake Agreement with Paradox Resources LLC, a helium refiner and seller owner with extensive helium market experience and connections, and operator of the advanced Lisbon Valley helium plant;
- Strategic Alliance to expand on the Offtake terms and exploit the corporate synergies with Paradox;
- Drilled Jesse-2 flowing up to 0.9% helium to surface confirming a helium discovery in the Jesse Field and extended the proven helium play fairway following a significant 1.5 mile step-out from the Jesse-1A well.
- Matured three new drill locations on the Jesse structure and multiple prospects independent to Jesse, including the drill-ready Earp prospect, with plans to drill a third helium well; and
- Increased Working Interest in the Red Helium Project to 77.5% with a right to earn 85%;
- The Company continues to optimise lease position based on maximizing prospectivity using information gained from the wells to date.





## Helium Offtake Agreement ("Offtake"):

Binding offtake executed with Lisbon Valley helium plant refiner and seller Paradox Resources LLC ("**Lisbon**") with industry standard 80/20 revenue sharing / allowing near immediate monetisation of a success case well to monetized with minimal time and Capex<sup>5,6</sup>. The Red Helium project is 20 miles south of and connected by pipeline to the operational Lisbon Helium Plant.

The GPSA represents recognition of the significant potential of the Red Helium Project and forms a relationship with a proven helium refiner and seller with deep helium processing and marketing experience. The key terms include an 80/20 industry standard revenue split in favour of the producer (GGE) as well as standard tariffs for gathering, compression and processing.

The advanced Lisbon Valley Gas Plant is comprised of a 60 million cubic feet per day (mmcfd) treating plant with a 45 mmcfd cryogenic plant capable of liquefaction of 0.5 mmcfd of high purity 99.9995% (5 ½ Nines) helium, that attracts premium pricing for advanced applications such as semiconductor, medical, research, space and defense industries. The plant has capacity for another 0.6 mmcfd of purified ~99.989% gaseous helium currently sold to multiple suppliers and direct to downstream retail consumers via Paradox's logistics arm comprising precisely engineered specialist tube trailers.

The Lisbon Plant is also currently sequestering carbon dioxide and is well advanced in the permitting process to qualify for carbon capture tax credits under Section 45Q (Revenue) of the US tax code. The recent Inflation Reduction Act increased the value of carbon dioxide sequestered to \$85 per metric tonne, making it a potential material revenue stream for the Red Helium Project.

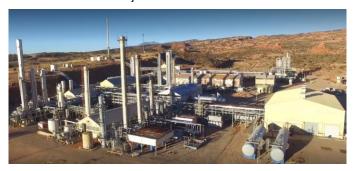


Figure 2: "5.5 Nines" Lisbon Valley Gas Processing Plant.

## **Prospective Helium Resource**

Table 1 - Valence Combined Leadville / McCracken Prospective Resources

Recoverable Helium	1U (P90) (BCF)	2U (P50) (BCF)	3U (P10) (BCF)
Gross to Valence - (28,046 gross acres)	8.1	12.7	17.6
Net to Valence - (18,959 net acres)	5.6	8.7	11.7
Net to GGE - (earning 85% of net Valence)	4.7	7.4	9.9
Red Project Total (Jesse McCracken)	9.3	25.7	71.1

 $<sup>^{\</sup>rm 6}$  ASX Announcement 9 Jan 2023 – Helium Offtake Agreement Secured for Jesse-2



 $<sup>^{\</sup>rm 5}$  ASX Announcement 16 March 2022 – Helium Offtake Agreement Secured



Table 2 - Valence Mississippian Leadville Prospective Resources<sup>7</sup>

Recoverable Helium	1U (P90)	2U (P50)	3U (P10)
	(BCF)	(BCF)	(BCF)
Gross to Valence - (28,046 gross acres)	7.6	10.9	12.9
Net to Valence - (18,959 net acres)	5.2	7.4	8.5
Net to GGE - (earning 85% of net Valence)	4.4	6.3	7.2
Red Project Total	7.9	20.8	57.6

Table 3 - Valence Devonian McCracken Prospective Resources

Deceyorable Helium	1U (P90)	2U (P50)	Mean	3U (P10)
Recoverable Helium	(BCF)	(BCF)	(BCF)	(BCF)
Gross to Valence - (19,508 gross acres)	0.5	1.8	2.3	4.7
Net to Valence - (13,336 net acres)	0.4	1.3	1.6	3.2
Net to GGE – (earning 85% of net Valence)	0.3	1.1	1.3	2.7
Red Project Total (Jesse McCracken)	1.4	4.9	6.3	13.5

The estimated quantities of helium that may potentially be recovered by the application of a future development project relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further exploration appraisal is required to determine the existence of a significant quantity of potentially moveable helium.

GGE now has a 77.5% interest in Valence with a right to secure a further 7.5% interest (total of 85%) on the following terms:

Earning 85% of Valence Resources	Max Commitment Spend	Cumulative Interest
Current Working Interest		77.5%
Drilling third well	US\$1.5M	85%

## **Notes on Table 1**

Note 1: The Prospective Resource evaluations of the Leadville (from Sproule) and the McCracken (from GGE) are both done under the SPE-PRMS Guidance and the GGE McCracken methodology has been reviewed by Sproule. The resource numbers that are disclosed are from two separate reports and have been combined to generate Table 1 in this press release.

Note 2: Table 1 is generated by arithmetic summing of Table 2 and Table 3

## Notes on Table 3

Note 1: The resource estimates have been prepared using the probabilistic method and are presented on an unrisked basis. In a probabilistic resource distribution, 1U (P90), 2U (P50), 3U (P10) estimates represent the 90% probability, 50% probability and 10% probability respectively that the quantity recovered will equal or exceed the estimate assuming a success case in the prospect. The mean is the average of the generated probability distribution.

Note 2: The resource estimates provided have an effective date of 10th June 2023.

Note 3: GGE has the right to earn 85% of the incorporated joint venture company Valence Resources LLC (Valence) by drilling a third well at the Red Helium Project

Note 4: The Red Project comprises private and Utah State leases as described in Schedule A.

Note 5: Resources have been calculated as those helium volumes that the entity is allowed to lift and sell on behalf of the royalty owner

Note 6: The totals shown are the for the Jesse McCracken closure as described in the Methodology section of Schedule A.

Note 7: Red Project Total incorporates the entire Red Helium Jesse closure for the McCracken

<sup>&</sup>lt;sup>7</sup> Sproule as announced on ASX on 8 December 2021. The Company is not aware of any new information or data that materially affects the information included in the referenced ASX announcement and confirms that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.





#### PRODUCTION SUMMARY

#### Total Grand Gulf Working Interest Quarterly Oil Production<sup>8</sup>

	Mar-23	Jun-23	Sep-23	Dec-23
Oil (bbls)	1,789	913	1,198	1,762

			Quarterly Bo		Daily Bo	
	Working Interest (WI)	Parish	Gross	GGE WI	Gross	GGE WI
Desiree Field	39.65%	Assumption	4,393	1,762	48	19

## Quarterly GGE WI Oil Production



## **Desiree Field**

#### Desiree, Assumption Parish, Louisiana, Non-Operator 39.65% Working Interest

The Hensarling #1 well (Desiree Field) produced a total for the period of 4,393 barrels of oil and 1,762 barrels of working interest oil to GGE with production returning to oil production levels pre-workover in the June 2023 quarter.

As at 30 June 2023, the 3P reserves attributed to the Cris RII and RIII sands ~111,000 bbls net to GGE9.

2023 Reserves an	d Reso	urces Sເ	ımmar	у						
Reserves and Resources as of 30	June 2023									
Net to Grand Gulf Energy Ltd										
			PROVED(	1P)	PROVE	D + PROBAE	BLE (2P)	PROVED, PI	ROBABLE, PO	OSSIBLE (3P)
FILED (LICENCE)	NET REV INTEREST	LIQUIDS MBBL	GAS MMCF	OIL EQUIV <sup>(1)</sup> MBOE	LIQUIDS MBBL	GAS MMCF	OIL EQUIV <sup>(1)</sup> MBOE	LIQUIDS MBBL	GAS MMCF	OIL EQUIV <sup>(1)</sup> MBOE
Reserves										
USA										
Desiree	30.96%	37	-	37	96	-	96	111	-	111
Total Reserves		37	-	37	96	-	96	111	-	111
CONTINGENT RESOURCES			10			2C			3C	
Reserves										
USA										
Desiree	30.96%	-	-	-	-	-	-	-	-	-
Total Contingent Resources		-	-	-	-	-	-	-	-	-
Total Reserves and Resources		37	-	37	96	-	96	111	-	111
Oil equivalent conversion f	actor: 6MSCF	per BBL.								
Competent Persons Statement										
The information contained in these				-			#77656 ,			
who is a consultant of the Compan	y, is qualified	in accordance	with ASX listin	ng rule 5.11 and	has consented	to				
the publication of this report.										

<sup>&</sup>lt;sup>8</sup> Grand Gulf is entitled to its Working Interest (WI) share after royalty payment to the oil and gas mineral rights owners. Historical production corrected for updated WI calculation.

<sup>&</sup>lt;sup>9</sup> Reserves calculated on a Net Revenue Interest (NRI) Basis





#### **BUSINESS DEVELOPMENT**

The Company is actively reviewing and assessing potential strategic helium acquisitions with synergies to the Red Helium project.

#### **CORPORATE**

There was no corporate activity during the period.

#### **RELATED PARTY PAYMENTS**

During the quarter ended 31 December 2023, the Company made payments of \$83,332 to related parties and their associates. These payments are directors' fees and are in accordance with existing remuneration agreements with Directors.





## LEASE SCHEDULE

The Company provides the following Schedule of lease interest held for the quarter as at 31 December 2023 as required by ASX Listing Rule 5.3.

Project	Location	Lease	Interest at Beginning of the Quarter	Interest at the end of the Quarter
Desiree/Louise	Assumption Parish, Louisiana	CL-0130	39.6/22.0%	39.6/22.0%
Desiree	Assumption Parish, Louisiana	12S14E52-031A (CI-0131)	39.60%	39.60%
Desiree	Assumption Parish, Louisiana	12S14E52-031B (CL-0131)	39.60%	39.60%
Desiree/Louise	Assumption Parish, Louisiana	12S14E52-001	39.6/22.0%	39.6/22.0%
Desiree/Louise	Assumption Parish, Louisiana	12S14E52-003	39.6/22.0%	39.6/22.0%
Desiree/Louise	Assumption Parish, Louisiana	12S14E52-005	39.6/22.0%	39.6/22.0%
Desiree/Louise	Assumption Parish, Louisiana	12S14E52-006	39.6/22.0%	39.6/22.0%
Desiree	Assumption Parish, Louisiana	12S14E52-008	39.60%	39.60%
Desiree/Louise	Assumption Parish, Louisiana	12S14E52-009	39.6/22.0%	39.6/22.0%
Desiree/Louise	Assumption Parish, Louisiana	12S14E52-011	39.6/22.0%	39.6/22.0%
Desiree/Louise	Assumption Parish, Louisiana	12S14E52-013	39.6/22.0%	39.6/22.0%
Desiree/Louise	Assumption Parish, Louisiana	12S14E52-014	39.6/22.0%	39.6/22.0%
Desiree/Louise	Assumption Parish, Louisiana	12S14E52-015	39.6/22.0%	39.6/22.0%
Desiree/Louise	Assumption Parish, Louisiana	12S14E52-016	39.6/22.0%	39.6/22.0%
Desiree/Louise	Assumption Parish, Louisiana	12S14E52-019	39.6/22.0%	39.6/22.0%
Desiree/ Louise	Assumption Parish, Louisiana	12S14E52-020	39.60%	39.60%
	Assumption Parish, Louisiana	12S14E52-022A	39.6/22.0%	39.6/22.0%
Desiree/Louise	Assumption Parish, Louisiana Assumption Parish, Louisiana		-	
Desiree/Louise		12S14E52-022B	39.6/22.0%	39.6/22.0%
Desiree/Louise	Assumption Parish, Louisiana	12S14E52-012	39.6/22.0%	39.6/22.0%
Desiree/Louise	Assumption Parish, Louisiana	12S14E52-002	39.6/22.0%	39.6/22.0%
Desiree/Louise	Assumption Parish, Louisiana	12S14E52-018	39.6/22.0%	39.6/22.0%
Desiree/Louise	Assumption Parish, Louisiana	12S14E52-021A	39.6/22.0%	39.6/22.0%
Desiree/Louise	Assumption Parish, Louisiana	12S14E52-021B	39.6/22.0%	39.6/22.0%
Desiree/Louise	Assumption Parish, Louisiana	12S14E52-024	39.6/22.0%	39.6/22.0%
Louise	Assumption Parish, Louisiana	12S14E52-025	39.60%	39.60%
Desiree/Louise	Assumption Parish, Louisiana	12S14E52-026	39.6/22.0%	39.6/22.0%
Louise	Assumption Parish, Louisiana	12S14E52-028	22.00%	22.00%
Louise	Assumption Parish, Louisiana	12S14E53-001	22.00%	22.00%
Louise	Assumption Parish, Louisiana	12S14E53-002A	22.00%	22.00%
Louise	Assumption Parish, Louisiana	12S14E53-002B	22.00%	22.00%
Desiree/Louise	Assumption Parish, Louisiana	12S14E52-002C	39.6/22.0%	39.6/22.0%
Desiree/Louise	Assumption Parish, Louisiana	12S14E52-002D	39.6/22.0%	39.6/22.0%
Desiree/Louise	Assumption Parish, Louisiana	12S14E52-002E	39.6/22.0%	39.6/22.0%
Louise	Assumption Parish, Louisiana	12S14E53-003	22.00%	22.00%
Louise	Assumption Parish, Louisiana	12S14E53-004	22.00%	22.00%
Louise	Assumption Parish, Louisiana	12S14E53-005	22.00%	22.00%
Louise	Assumption Parish, Louisiana	12S14E53-006	22.00%	22.00%
Louise	Assumption Parish, Louisiana	12S14E53-007	22.00%	22.00%
Desiree	Assumption Parish, Louisiana	12S14E52-032 (CL-0068 & 0106)	39.60%	39.60%
Louise	Assumption Parish, Louisiana	12S14E52-029	22.00%	22.00%
Louise	Assumption Parish, Louisiana	12S14E52-030	22.00%	22.00%
DJ Basin	Weld County, Colorado	Lease A	52.20%	0%
DJ Basin	Weld County, Colorado	Lease B	52.20%	0%
DJ Basin	Weld County, Colorado	Lease C	52.20%	0%
Red Helium Project	San Juan County, Utah	1000	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1001	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1002	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1003	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1004	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1005	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1006	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1007	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1008	77.50%	77.50%
nou riciiuiii riojett	Jan Juan County, Otan	1000	11.50%	11.50%



Red Helium Project	San Juan County, Utah	1010	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1011	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1012	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1013	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1014	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1015	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1016	77.50%	0.00%
Red Helium Project	San Juan County, Utah	1017	77.50%	0.00%
Red Helium Project	San Juan County, Utah	1018	77.50%	0.00%
Red Helium Project	San Juan County, Utah	1019	77.50%	0.00%
Red Helium Project		1019	77.50%	0.00%
Red Helium Project	San Juan County, Utah San Juan County, Utah	1020	77.50%	77.50%
,	**	1021		0.00%
Red Helium Project	San Juan County, Utah		77.50%	
Red Helium Project	San Juan County, Utah	1023	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1024	77.50%	0.00%
Red Helium Project	San Juan County, Utah	1025	77.50%	0.00%
Red Helium Project	San Juan County, Utah	1026	77.50%	0.00%
Red Helium Project	San Juan County, Utah	1028	77.50%	0.00%
Red Helium Project	San Juan County, Utah	1029	77.50%	0.00%
Red Helium Project	San Juan County, Utah	1030	77.50%	0.00%
Red Helium Project	San Juan County, Utah	1031	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1032	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1033	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1034	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1035	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1036	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1037	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1038	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1039	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1040	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1041	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1042	77.50%	0.00%
Red Helium Project	San Juan County, Utah	1043	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1044	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1045	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1046	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1047	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1048	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1049	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1050	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1051	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1053	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1054	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1055	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1056	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1057	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1058	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1059	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1060	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1061	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1062	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1063	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1064	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1065	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1066	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1067	77.50%	0.00%
Red Helium Project	San Juan County, Utah	1068	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1069	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1070	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1071	77.50%	0.00%
Red Helium Project	San Juan County, Utah	1072	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1073	77.50%	77.50%
nea nenam riojett	Juli Juan County, Otan	1010	11.50%	11.50%





Red Helium Project	San Juan County, Utah	1074	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1075	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1076	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1077	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1078	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1079	77.50%	0.00%
Red Helium Project	San Juan County, Utah	1081	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1082	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1082	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1084	77.50%	0.00%
Red Helium Project	**	1085	77.50%	77.50%
-	San Juan County, Utah San Juan County, Utah		77.50%	
Red Helium Project	**	1086		77.50%
Red Helium Project	San Juan County, Utah	1087	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1088	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1089	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1090	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1091	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1092	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1093	77.50%	0.00%
Red Helium Project	San Juan County, Utah	1094	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1095	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1096	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1097	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1098	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1099	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1100	77.50%	0.00%
Red Helium Project	San Juan County, Utah	1101	77.50%	0.00%
Red Helium Project	San Juan County, Utah	1102	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1103	77.50%	0.00%
Red Helium Project	San Juan County, Utah	1104	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1105	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1106	77.50%	0.00%
Red Helium Project	San Juan County, Utah	1107	77.50%	0.00%
Red Helium Project	San Juan County, Utah	1108	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1109	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1110	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1111	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1112	77.50%	0.00%
Red Helium Project	**	1113	77.50%	77.50%
,	San Juan County, Utah		77.50%	77.50%
Red Helium Project	San Juan County, Utah	1114		
Red Helium Project	San Juan County, Utah	1116	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1117	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1118	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1120	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1121	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1122	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1123	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1124	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1125	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1126	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1128	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1129	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1130	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1131	77.50%	0.00%
Red Helium Project	San Juan County, Utah	1132	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1133	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1134	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1135	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1136	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1137	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1138	77.50%	0.00%
Red Helium Project	San Juan County, Utah	1139	77.50%	0.00%
<b>y</b>	V	1		





Red Helium Project	San Juan County, Utah	1140	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1141	77.50%	0.00%
Red Helium Project	San Juan County, Utah	1144	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1145	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1147	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1148	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1149	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1150	77.50%	77.50%
Red Helium Project	San Juan County, Utah	1151	77.50%	77.50%
Red Helium Project	San Juan County, Utah	ML 54127 OBA	77.50%	77.50%
Red Helium Project	San Juan County, Utah	ML 54128 OBA	77.50%	77.50%
Red Helium Project	San Juan County, Utah	ML 54129 OBA	77.50%	77.50%
Red Helium Project	San Juan County, Utah	ML 54130 OBA	77.50%	77.50%
Red Helium Project	San Juan County, Utah	ML 54131 OBA	77.50%	77.50%
Red Helium Project	San Juan County, Utah	ML 54132 OBA	77.50%	77.50%
Red Helium Project	San Juan County, Utah	ML 54133 OBA	77.50%	77.50%
Red Helium Project	San Juan County, Utah	ML 54135 OBA	77.50%	77.50%
Red Helium Project	San Juan County, Utah	ML 54136 OBA	77.50%	77.50%
Red Helium Project	San Juan County, Utah	ML 54137 OBA	77.50%	77.50%
Red Helium Project	San Juan County, Utah	ML 54138 OBA	77.50%	77.50%
Red Helium Project	San Juan County, Utah	ML 54141 OBA	77.50%	77.50%
Red Helium Project	San Juan County, Utah	ML 54143 OBA	77.50%	77.50%
Red Helium Project	San Juan County, Utah	ML 54144 OBA	77.50%	77.50%

## Forward Looking Statements

This report contains forward looking statements that are subject to risk factors associated with resources businesses. It is believed that the expectations reflected in these statements are reasonable but they may be affected by a variety of variables and changes in underlying assumptions which could cause actual results or trends to differ materially, including but not limited to: price fluctuations, actual demand, currency fluctuations, drilling and production results, reserve estimates, loss of market, industry competition, environmental risks, physical risks, legislative, fiscal and regulatory developments, economic and financial market conditions in various countries and regions, political risks, project delay or advancement, approvals and cost estimates.

## Competent Persons Statement

The oil & gas information in this report has been reviewed and signed off by Kevin Kenning (Registered Reservoir Engineer, Registered P.E. State of Texas #77656) with over 38 years relevant experience within oil and gas sector, who is a consultant of the Company, is qualified in accordance with ASX listing rule 5.11 and has consented to the publication of this report.

The helium information in this report is based on information compiled or reviewed by Sproule Energy Consulting ("Sproule") and Mr Keith Martens. Sproule is an independent resources and reserves certification specialist and is considered the world's leading helium evaluator. Mr Martens is a qualified oil and gas geologist/geophysicist with over 45 years of Australian, North American, and other international executive oil and gas experience in both onshore and offshore environments. He has extensive experience of oil and gas exploration, appraisal, strategy development and reserve/resource estimation. Mr Martens has a BSc. (Dual Major) in geology and geophysics from The University of British Columbia, Vancouver, Canada.

## Oil and Gas Glossary

Abbreviation	Abbreviation meaning	Abbreviation	Abbreviation meaning
1P	proved reserves	A\$ or AUD	Australian dollars
2P	proved plus Probable reserves	US\$ or USD	United states dollars
3P	proved plus Probable plus Possible reserves	Q1	first quarter ended September 30th
bbl or bbls	barrel of oil	Q2	second quarter ended December 31st
boe	barrel of oil equivalent (1 bbl = 6 Mcf)	Q3	third quarter ended March 31st
d	suffix – per day	Q4	fourth quarter ended June 30 <sup>th</sup>
G)	gigajoules	YTD	year-to-date
mbbl	thousands of barrels	YE	year-end
mboe	thousands of barrels of oil equivalent	H1	six months ended June 30 <sup>th</sup>
Mcf	thousand cubic feet	H2	six months ended December 31st
MMcf	million cubic feet	В	Prefix - Billions
PDP	proved developed producing reserves	MM	Prefix - Millions
PUD	Proved Undeveloped Producing	М	Prefix - Thousands
C	Contingent Resources – 1C/2C/3C – low/most likely/high	/d	Suffix – per day
Net	Working Interest after Deduction of Royalty Interests	bbl	Barrel of Oil
NPV (10)	Net Present Value (discount rate), before income tax	boe	Barrel of Oil Equivalent (1bbl = 6 mscf)
EUR	Estimated Ultimate Recovery per well	scf	Standard Cubic Foot of Gas
WTI	West Texas Intermediate Oil Benchmark Price	Bcf	Billion Standard Cubic Foot of Gas
LLS	Louisiana Light Oil Benchmark Price	CY	Calendar Year
1P or TP	Total Proved	OCF	Operating Cash Flow, ex Capex
2P or TPP	Total Proved plus Probable Reserves	E	Estimate
3P	Total Proved plus Probable plus Possible Reserves	Net Acres	Working Interest
EBITDA	Earnings before interest, tax, depreciation, depletion and		
	amortisation		



## Appendix 5B

# Mining exploration entity or oil and gas exploration entity quarterly cash flow report

## Name of entity

GRAND GULF ENERGY LTD		
ABN	Quarter ended ("current quarter")	
22 073 653 175	31 December 2023	

Cons	solidated statement of cash flows	Current quarter \$A'000	Year to date (6 months) \$A'000
1.	Cash flows from operating activities		
1.1	Receipts from customers	173	264
1.2	Payments for		
	(a) exploration & evaluation	(282)	(2,143)
	(b) development	-	-
	(c) production	(111)	(215)
	(d) staff costs	(84)	(128)
	(e) administration and corporate costs	(266)	(415)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	-	-
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	-	-
1.8	Other (provide details if material)	-	-
1.9	Net cash from / (used in) operating activities	(570)	(2,637)

2.	Ca	sh flows from investing activities	
2.1	Pay	ments to acquire or for:	
	(a)	entities	-
	(b)	tenements	-
	(c)	property, plant and equipment	-
	(d)	exploration & evaluation	-
	(e)	investments	-
	(f)	other non-current assets	-

Cons	solidated statement of cash flows	Current quarter \$A'000	Year to date (6 months) \$A'000
2.2	Proceeds from the disposal of:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	-	-
	(d) investments	-	-
	(e) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)	-	-
2.6	Net cash from / (used in) investing activities	-	-

3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	1,668	3,200
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	-	-
3.4	Transaction costs related to issues of equity securities or convertible debt securities	(158)	(259)
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	-	-
3.10	Net cash from / (used in) financing activities	1,510	2,941

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	593	1,223
1,	Net cash from / (used in) operating activities (item 1.9 above)	(570)	(2,637)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	-	-
4.4	Net cash from / (used in) financing activities (item 3.10 above)	1,510	2,941

Cons	solidated statement of cash flows	Current quarter \$A'000	Year to date (6 months) \$A'000
4.5	Effect of movement in exchange rates on cash held	-5	-
4.6	Cash and cash equivalents at end of period	1,527	1,527

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	1,527	593
5.2	Call deposits	-	-
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	1,527	593

6.	Payments to related parties of the entity and their associates	Current quarter \$A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1	83
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-
	if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a c nation for, such payments.	lescription of, and an

7.	Financing facilities  Note: the term "facility' includes all forms of financing arrangements available to the entity.  Add notes as necessary for an understanding of the sources of finance available to the entity.	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
7.1	Loan facilities	-	-
7.2	Credit standby arrangements	-	-
7.3	Other (please specify)	-	-
7.4	Total financing facilities	-	-
7.5	Unused financing facilities available at qu	arter end	-
7.6	Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.		

8.	Estimated cash available for future operating activities	\$A'000
8.1	Net cash from / (used in) operating activities (item 1.9) (5	
8.2	(Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	-
8.3	Total relevant outgoings (item 8.1 + item 8.2)	(570)
8.4	Cash and cash equivalents at quarter end (item 4.6)	1,527
8.5	Unused finance facilities available at quarter end (item 7.5)	-
8.6	Total available funding (item 8.4 + item 8.5)	1,527
8.7	Estimated quarters of funding available (item 8.6 divided bitem 8.3)	y 2.68
	Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) Otherwise, a figure for the estimated quarters of funding available must be incl	
8.8	If item 8.7 is less than 2 quarters, please provide answers to the	e following questions:
	8.8.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?	
	Answer:	
	8.8.2 Has the entity taken any steps, or does it propose to take cash to fund its operations and, if so, what are those stake believe that they will be successful?	
Answer:  8.8.3 Does the entity expect to be able to continue its operations and to meet objectives and, if so, on what basis?		
		ions and to meet its business
	Answer:	
	Note: where item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8	2.8.3 above must be answered.

## Compliance statement

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Date:	31 January 2024
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Authorised by: .....By the board of directors.

#### Notes

- 1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
- 2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
- 3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
- 4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
- 5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles* and *Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.