

GERAB

BULLETIN

Weekly News



EXECUTIVE SUMMARY

The Commodity summary

- Crude Oil Brent prices trading lower by 16% 3MTD and Crude Oil WTI prices are trading lower by 18% 3MTD.
- Coal prices are trading lower by 64% YTD
- Steel HRC (N. America) prices are trading higher by 65% than a year ago prices
- Iron ore prices are trading higher by 23% YTD
- Natural Gas prices are trading lower by 59% than a year ago prices

The Currency summary

- Euro is stronger by 2% YTD to USD
- The US Dollar to CNY exchange rate differential is 3% YTD

The Rig count summary

- The Rig counts in UAE have gone up by 7% 3MTD and in Africa have gone up by 11% 3MTD.

Project summary

- Mitsubishi and ADNOC Sign Agreement to Explore Low Carbon Collaboration Opportunities
- MoU signed for Africa-Atlantic gas pipeline project
- Oman Signs Hydrogen Project development agreements
- Vulcan breaks ground on Green Hydrogen Steel Plant at Duqm, Oman
- Salalah Green Ammonia Project Takes Shape as Preferred Consortium Signs Agreement Contract ,Oman
- HEISCO Kuwait awarded \$443 million Power Plant Rehabilitation Project
- QatarEnergy Issues Contract on Laffan Refinery 1 Upgrade
- Iraq anticipates major boost in natural gas production with foreign investments
- ACWA Power Inks Agreement for Development of Indonesia's Largest Green Hydrogen Project
- Algeria invests in energy expansion: Minister Arkab unveils \$42B plan
- Nigeria's NNPC signs LNG deals with Wison and SDP Services
- Papua New Guinea in Advanced Talks With Chinese Banks to Fund Its Stakes in LNG Megaprojects
- Norway Oil and Gas Investments Set to Soar in 2024
- Construction Of Long-Distance High Speed Rail Tunnel In Łódź Has Begun-POLAND

COMMODITY UPDATES

COMMODITY	UOM	LATEST PRICE	WTD %	MTD %	3MTD %	6MTD %	YTD %
Chromium	USD/MT	9,322.50	0.55	0.23	3.82	1.35	-7.75
Coal	USD/MT	160.94	-1.85	18.71	-8.34	11.94	-63.58
Cobalt	USD/MT	30,004.91	-1.87	-11.70	-2.80	3.24	-31.93

Copper	USD/MT	8,384.00	1.26	1.38	0.48	0.39	0.28
Crude Oil	USD/BBL	74.15	2.65	-7.51	-17.17	1.78	-6.25
Crude Oil Brent	USD/BBL	76.50	2.44	-7.24	-16.14	1.79	-5.97
Crude Oil WTI	USD/BBL	71.81	2.88	-7.79	-18.23	1.76	-6.54
Iron Ore	USD/MT	135.16	1.69	5.69	12.83	21.43	23.42
Molybdenum	USD/MT	38,300.85	-2.53	-1.51	-28.59	-21.70	-28.13
Natural Gas	USD/MCF	2.51	-5.50	-22.05	-8.78	-0.31	-58.82
Nickel	USD/MT	16,620.00	0.27	-4.44	-17.69	-21.95	-42.70
Steel HRC (FOB China)	USD/MT	567.00	0.89	3.38	3.66	3.41	-0.26
Steel HRC (N. America)	USD/MT	1,200.99	0.75	22.25	47.37	14.75	65.47
Steel Rebar	USD/MT	613.66	0.03	3.47	8.77	7.61	0.83
Steel Scrap	USD/MT	427.00	-0.81	7.30	12.88	12.85	11.84

Source: Investing.com / Trading Economics / London Metal Exchange / MarketIndex.com.au / OilPrice.com

CURRENCY EXCHANGE RATE									
Code	Description	Country	Units	Latest Exchange Rates	WTD%	MTD%	3MTD%	6MTD%	YTD%
EURUSD	1 EUR to USD	Euro Area	USD	1.0903	1.03	0.22	2.46	0.66	2.07
USDCNY	1 USD to CNY	China	CNY	7.1402	0.32	1.53	2.07	0.49	-2.84

Source- Trading Economics

CRUDE OIL STOCK								
Region	Unit	Latest Count	WTD %	MTD %	3MTD %	6MTD %	YTD %	
US Stocks of Crude Oil & Petroleum Products	Thousand Barrels	16,11,228.00	-0.62	-0.70	-0.72	0.18	2.13	

Source: US Energy Information Authority

SELECTIVE COMMODITY TRADERS AND PIPE MANUFACTURERS STOCK PRICES

STOCK PRICES							
Name	Latest Value	Units	WTD%	MTD%	3MTD%	6MTD%	YTD%
ArcelorMittal SA	26.47	USD	3.72	14.54	3.60	-5.63	-0.56
Chiyoda Corporation	341.00	JPY	0.00	-0.58	-11.20	-7.08	-7.84
Glencore PLC	433.65	GBP	-4.39	-3.63	-3.79	-7.80	-19.84
HD Hyundai Heavy Industries Co. Ltd.	1,22,200.00	KRW	-2.71	12.52	-2.86	5.34	3.12
JGC Holdings Corporation	1,576.50	JPY	-2.02	-1.50	-28.36	-17.00	-11.28
McDermott International Ltd.	0.09	USD	-48.33	-45.29	-62.80	-70.94	-74.17

National Marine Dredging	27.60	AED	-1.78	16.36	9.52	53.33	12.75
NYSE American Steel Index	2,067.98	Index	2.17	3.92	3.94	11.41	18.01
Rio Tinto PLC	5,496.00	GBP	-1.29	1.55	5.27	2.96	-2.24
Technip Energies NV	20.01	EUR	-0.20	-7.79	-13.49	36.40	32.43
TechnipFMC PLC	19.32	USD	3.09	-10.31	-7.07	30.19	66.70
Tenaris SA	33.58	USD	0.06	-4.28	2.10	20.40	0.78
Tubacex SA	3.22	EUR	-4.87	13.18	8.42	12.98	59.41
Woodside Energy Group	30.25	AUD	0.93	-7.27	-20.14	-12.70	-15.15

Source- Trading Economics / Wall Street Journal / CNBC

INTERNATIONAL RIG COUNTS

ACTIVE RIG COUNTS BY REGION

Region	Latest Count	WTD %	MTD %	3MTD %	6MTD %	YTD %
United Arab Emirates	61	*	1.67	7.02	5.17	19.61
GCC	234	*	1.74	4.93	2.18	4.93
Middle East	339	*	1.80	4.31	1.50	3.67
Africa	111	*	8.82	11.00	27.59	33.73
Asia-Pacific	202	*	0.00	-1.46	-6.48	7.45
Europe	112	*	-1.75	-0.88	13.13	17.89
Latin America	175	*	0.00	1.16	-7.89	-5.41
North America	816	0.37	0.25	0.87	-2.39	-5.23
Total	1,755	*	0.86	1.74	-0.40	0.92

Source- Baker Hughes

(*) No weekly data available for those particular regions

NEWS OF THE WEEK

GULF COOPERATION COUNCIL (GCC)

UAE

- **Thyssenkrupp awarded new Projects in UAE**

thyssenkrupp Decarbon Technologies has signed two projects with Fujairah Cement Industries (FCI) and Gulf Biopolymers Industries Ltd (Gulf Biopolymers), both based in the United Arab Emirates. The partnerships are aimed at decarbonizing energy intensive cement production and building up biopolymer production capacity in the MENA region. thyssenkrupp has bundled key technologies for the decarbonization of the industry in its new segment Decarbon Technologies. Announcing these milestone projects during COP28 is proof for the strategic importance of this green industrial powerhouse. The industrial sector is the world's second largest emitter of CO₂, but also holds the levers for bold and deep cuts in greenhouse gas emissions. thyssenkrupp wants to play a proactive role in realizing this decarbonization potential through new partnerships on a global scale. thyssenkrupp Polysius and FCI will test the deployment of alternative fuels to reduce CO₂ emissions in cement production. Polysius has developed a new combustion chamber technology that allows fossil fuels to be completely replaced by green alternatives, thereby reducing emissions and operating costs. **12th December 2023**

- **Mitsubishi and ADNOC Sign Agreement to Explore Low Carbon Collaboration Opportunities**

Mitsubishi Heavy Industries, Ltd. (MHI) and ADNOC signed an agreement on December 6, 2023 memorializing their intent to explore potential opportunities for collaboration on the development of value chains for blue NH3 and blue H2. (the "Agreement"). MHI will act as a technology solution provider to support decarbonization of oil and gas production sites owned by ADNOC and the development of businesses to produce blue hydrogen and blue ammonia while creating demand for these resources the world over. The two companies will seek to complement each other's strengths and create synergies between ADNOC's assets and MHI's related technologies, with the aim of accelerating the development of the hydrogen and ammonia businesses, as well as carrying out initiatives with a view to supporting efforts to achieve net zero emissions globally. **11th December 2023**

- **Enoc, Japan's IHI Corp Start Feasibility Study on Green Ammonia Project**

Enoc Group, a leading integrated global energy player, and Japan's heavy-industry manufacturer IHI Corporation, have announced the start of the feasibility study of their groundbreaking green ammonia production project. In line with COP28, this significant development not only fortifies Dubai's Clean Energy Strategy 2050, but also contributes to the goals outlined in both the UAE Energy Strategy 2050 and the UAE Net Zero by 2050 Strategic Initiative. The collaboration aims to propel the country into a sustainable global hub for clean energy and a green economy. The Memorandum of Understanding (MoU) signed last year laid the foundation for exploring a low-carbon hydrogen and low-carbon ammonia supply chain in the UAE, aligning with the nation's efforts to diversify its energy sources and transition into a clean energy model. Saif Humaid Al Falasi, Group CEO of Enoc, said: "At Enoc, we are committed to partnerships that pave the way for a sustainable future. The initiation of the feasibility study phase is a testament to our dedication to supporting the UAE's energy transition efforts and advancing Dubai's Clean Energy Strategy 2050. This marks a new stage in our collaboration with IHI Corporation, and we are eager to explore the immense potential of green ammonia production in the UAE. **8th December 2023**

- **MoU signed for Africa-Atlantic gas pipeline project**

A Memorandum of Understanding was recently signed on investment cooperation in the Africa-Atlantic gas pipeline project. The MoU was signed between Morocco and the UAE when King Mohammed VI visited the Gulf Arab state. As per the MoU, UAE will contribute both financially and technically to the realization of the Africa-Atlantic gas pipeline project. The length of the Africa-Atlantic gas pipeline Also known as the Morocco-Nigeria gas pipeline, the Africa-Atlantic gas pipeline is 5,600 kilometres long. It traverses a total of 13 countries along the Atlantic coast. These countries are Nigeria, Gambia, Guinea Bissau, Guinea, Sierra Leone and Liberia. The others are Ivory Coast, Ghana, Togo, Benin, Senegal, Mauritania and Morocco. Upon completion, the Africa-Atlantic gas pipeline project will channel more than 5,000 billion cubic meters of Nigeria's natural gas to Morocco. Ultimately the project will deliver gas to Europe via the Maghreb Europe Gas Pipeline (GME) and the European gas network. **8th December 2023**

OMAN

- **Vulcan breaks ground on Green Hydrogen Steel Plant at Duqm**

Vulcan Green Steel, a subsidiary of Jindal Shadid Steel Group, has broken ground on its integrated green hydrogen steel factory at the Special Economic Zone at Duqm (Sezad) in Oman. The project is set for completion by 2026. With an investment of up to \$3 billion, the project is a significant one for both the Jindal Shadid Steel Group and the sultanate. It is in line with Oman's vision for Net Zero by 2050, thus positioning the nation as a trailblazer in sustainable steel production. The company plans to have two production lines of 2.5 million metric tonnes per year each, comprising direct reduction iron (DRI), an electric arc furnace (EAF) and a hot strip mill. The project will initially be based on natural gas for energy and will later shift to green hydrogen and produce high value-added steel catering to automobile, wind turbine and domestic consumer durable goods manufacturing across Europe and Japan. It is set for completion by 2026 and the production will begin the very next year. Once operational, it will boast a total capacity of about 5 million metric tonnes per annum. The ground breaking ceremony was held in November last week in the presence of Dr Ali Masoud Al Sunaidi, the Chairman of the Public Authority for Special Economic Zones and Free Zones (OPAZ), Naveen Jindal, Chairman of Jindal Group and other

senior officials. Lauding the project, Dr Al Sunaidi said: "This project aims to produce 5 million tonnes of green steel with an investment of up to \$3 billion. **11th December 2023**

- **Oman-Korea partnership to boost green hydrogen sector**

The partnership between Oman and South Korea in the green hydrogen sector offers substantial mutual gains for both countries, leveraging each other's strengths and capacities. This was the message from speakers at the Korea-Oman Green Hydrogen Strategic Forum 2023 held on the sidelines of the Green Hydrogen Summit Oman 2023 on Tuesday. The Second Korea-Oman Green Hydrogen Strategic Forum was hosted by the Korean Embassy at Crowne Plaza, Oman Convention and Exhibition Center (OCEC). The forum aimed at increasing the level of understanding of the strategies and policies of Korea and Oman in the green hydrogen sector. Once these projects are completed, Oman's aggregate output of green hydrogen is expected to reach the targeted 1mn tonnes per annum by 2030. One of the major partnerships between Korea and Oman is the POSCO-led consortium, which in June this year signed a whopping \$6.7bn green hydrogen and ammonia project to be established in Duqm. This project will produce 1.2mn tonnes of green ammonia per annum. Most of the green hydrogen produced at the facility will be shipped to Korea. **12th December 2023**

- **Oman's Abraj Energy awarded drilling services Contract with TotalEnergies**

Abraj Energy Services, Oman, signed today a strategic partnership contract with TotalEnergies, a leading global multi-energy company, to provide drilling services within Block 12's concession area in the Sultanate of Oman, marking the commencement of a new chapter in exploration and development. The partnership contract signed by Eng. Saif Al-Hamhami, CEO of Abraj Energy Services and Sergio Giorgi, Total Energies' Oman Country Chair. The signing ceremony was attended by officials from the Sultanate's Ministry of Energy and Minerals, senior executives from Abraj Energy Services and TotalEnergies, Petroleum Development Oman (PDO), members of the Oman Energy Association (OPAL), partner delegates, and media representatives. This strategic contract between Abraj Energy Services and TotalEnergies is poised to redefine industry standards, building on Abraj's extensive expertise in drilling and well services since 2006, and TotalEnergies global and recognized expertise, ensuring excellence in the execution of two key gas exploration wells in Oman's Block 12. With 16 years of experience serving the country's energy sector, Abraj, a pioneer in its field, commands a market share of 28% in drilling and 15% in key well services. **13th December 2023**

- **Salalah Green Ammonia Project Takes Shape as Preferred Consortium Signs Agreement Contract**

Salalah Green Ammonia Project Takes Shape as Preferred Consortium Signs Agreement Contract. Oman's state-owned company OQ has formed a consortium with other multinational companies to secure the Salalah Green Ammonia Project. The project aims to produce 1 million tons of green ammonia every year in Oman. The company is joining hands with other multinational agencies to take part in Oman's large-scale green ammonia production project. The consortium signed a land use and development agreement contract with Hydrom relating to the project. Hydrom is the project's client company that was established by the Omani government to venture into the green hydrogen business. The agreement issues a go-ahead for the construction plans of the project to take shape. The project plans to start its infrastructure works after basic designs and preliminary surveys are done in 2027. The Salalah Green Ammonia Project aims to have started production by 2030. The produced ammonia will be exported to global markets for use in carbon-free energy power generation. This includes countries such as Japan and Korea. The project will be a great advancement in Oman's venture in the green ammonia production industry. **14th December 2023**

<p>KUWAIT</p>	<ul style="list-style-type: none"> <p><u>HEISCO Kuwait awarded \$443 million Power Plant Rehabilitation Project</u> Kuwait announced in a statement that it has awarded a Rehabilitation Project at Az-Zour South Power & Water Distillation Station. The tender was issued by Ministry of Electricity & Water & Renewable Energy. The value of the contract is KWD 136.65 million (USD 443 million). Project Scope of Work includes Boiler Rehabilitation & Lifetime Extension And Replacement of Control System For Boiler, Steam Turbine And Auxiliaries for (8) Units At Az-Zour South Power & Water Distillation Station. 11th December 2023</p> <p><u>GE awarded Services Agreement for Shuaiba North Power Station in Kuwait</u> GE Vernova’s Gas Power business announced that it has signed a multi-year services agreement with the Malaysian and Kuwait-based Engineering Company TNB REMACO Al Dhow Joint Venture for Shuaiba North Power Station facility in Al Ahmadi, Kuwait. Under the terms of the 5-year agreement, GE Vernova will provide services for the gas turbines installed at the Kuwait’s Ministry of Electricity & Water & Renewable Energy’s 876 Megawatt (MW) Shuaiba North Power Station. The deal will also include the supply of parts, repairs, field services, and GE Vernova’s Asset Performance Management (APM) software in the cloud. By incorporating APM from GE Vernova’s Digital business within the service agreement, Shuaiba Power Station will enable increased levels of predictive maintenance (PdM) for the gas turbines and accessory equipment. APM Reliability, powered by Predictive Analytics, is expected to improve asset reliability, availability and productivity to help contribute to the long-term energy security needs in the country. 13th December 2023</p>
<p>QATAR</p>	<ul style="list-style-type: none"> <p><u>QatarEnergy Issues Contract on Laffan Refinery 1 Upgrade</u> QatarEnergy Issues Contract on Laffan Refinery 1 Upgrade QatarEnergy has awarded a contract for the upgrade of Laffan Refinery 1 to Japan-headquartered Chiyoda corporation. The scope of the project includes front-end engineering of the refinery. It also includes design services for a brownfield project related to modifying pump seals. This is to be done in Laffan Refinery 1 located in Qatar’s Ras Laffan. The company awarded the contract is to provide design services for the project. The duration of the contract is scoped at eight months. The client company is expected to commence on the tendering of other processes related to the project. This include engineering and procurement works that are to be tendered. The client company will also tender contracts for the construction of the Laffan Refinery 1 and its subsequent upgrade. The company is responsible for the operation of two refineries in Ras Laffan Industrial City (RLIC). The barrels include 61,000 barrels a day (b/d) of naptha and 52,000 b/d of kerojet. It also includes 24,000 b/d of gas oil, and 9,000 barrels a day of Liquid Petroleum Gas (LPG). The major shareholder of Laffan Refinery 1 is QataEnergy at 51 percent majority share. Other shareholders include TotalEnergies and ExxonMobil. Other companies also include Cosmo, Idemitsu, among others that hold shares in the refinery. The upgrade of the refinery will ensure production continues and maybe even increases as QatarEnergy prospect on that happening. 7th December 2023</p>
<p>SAUDI ARABIA</p>	<ul style="list-style-type: none"> <p><u>Synergy Consulting advises NWC for Package 6 Long-Term O&M Contract</u> Synergy Consulting, Inc. announced in a statement that it was honored to support the National water company of the kingdom of Saudi Arabia (KSA) in the execution of Package 6 of Long-Term Operation and Maintenance (LTOM) contract. The Contract was related to the rehabilitation, operation, and maintenance of sewage treatment plants (STPs) in Heet and Al Haer, Riyadh, which was awarded to Alkhorayef Water and Power Technologies Company (AWPT) as part of NWC’s ongoing Long Term O&M Contracts procurement program for Sewage Treatment Plants across KSA via multiple tender packages. The contract was signed on 10th Dec 23, between Eng. Nemer Mohammed Alshebl, NWC CEO, and CEO of AWPT. This is the fourth project to be awarded under the LTOM Program after the successful Closing of the Jeddah City Package (awarded to the consortium of Veolia, CWC, and Al Awael) and the Makkah City Package (awarded to the consortium of Miahona and Thabat) and the execution of Package 5 (Riyadh- Manfouha) (awarded to Alkhorayef Water and Power Technologies Company (AWPT). The Riyadh-Heet and Al Haer package is a contract spanning over 15 years. The package consists of four STPs</p>

(three in Heet and one in Al Haer region of Riyadh) with a total treatment capacity of 870,000 m3/ day.
11th December 2023

- **Saudi Archirodon and DEME consortium awarded Dredging Contract for Port of NEOM**
A consortium of Saudi Archirodon and DEME has been awarded the second phase of transformation work for the Port of NEOM, the primary seaport of entry to northwest Saudi Arabia. Based in Oxagon, Port of NEOM is strategically located along the coast of the Red Sea and is adjacent to the nearby Suez Canal, through which 13% of global trade passes. The port will be a critical enabler to the overall build, operations and economic ambitions of NEOM, facilitating the import of goods and materials during the development phase and as a new global port serving the region. The project will commence in December 2023. DEME will work in a consortium with leading international marine construction group Archirodon to deliver on the contract to form the basin that will enable the world's largest ships to call at Port of NEOM. All materials recovered as part of the channel development will be used to support the wider development of Oxagon. Christopher Iwens, Managing Director Dredging at DEME: "We are proud to be awarded this important project which focuses on building a next generation sustainable port in the Kingdom of Saudi Arabia. This contract underscores our technical and engineering expertise which, alongside the capabilities of our partners at Archirodon, were undoubtedly key factors in DEME securing this landmark contract. **11th December 2023**
- **Vallourec Wins Orders for Oil Country Tubular Goods from Aramco**
Vallourec, a leader in premium steel tubular solutions, announces that it has won orders for premium oil country tubular goods (OCTG) from Aramco. These orders total more than three hundred million dollars and supplement Vallourec's recent successes in the region. They cover the supply of proprietary steel grade casing and tubing for high-pressure environments, threaded with premium VAM connections. These orders are incremental to the volumes to be delivered under the company's 10-year long-term agreement with Aramco. Vallourec will handle production at several of its plants, drawing on its global industrial footprint and full range of expertise. Deliveries will take place during 2024. Philippe Guillemot, Vallourec's Chairman and CEO, commented: "These orders speak to Vallourec's deep relationship with Aramco and our strong brand recognition in the Kingdom. The company has been present in Saudi Arabia for over 10 years and is growing its domestic presence to meet strong local demand. We look forward to further strengthening our relationship in the years ahead. **12th December 2023**
- **NWC's Investment Portfolio Exceeds SAR 102bn in Water, Environmental Sectors**
The National Water Company (NWC) said that it is working on a roadmap that includes investments worth billions in future projects intended to expand water and sanitation services, keep pace with the demand and growth, and achieve the Kingdom's vision. NWC CEO Nemer Al-Shebl said at the Fifth Arab Water Conference that the NWC investment portfolio for its infrastructure exceeds SAR 102 billion, allocated for the implementation of close to 1,300 projects. He urged interested local and international companies to seize the investment opportunities in the water sector and implement water and environmental treatment projects offered by the company on its website: nwc.com.sa. NWC, he said, has achieved many accomplishments within the National Water Strategy. **11th December 2023**
- **SABIC, SD and Linde Signs MOU to decarbonize the Ethylene Glycol**
SABIC, a global leader in the chemicals industry, Scientific Design (SD), an affiliate company licensing leader in Ethylene Glycol Technology and Linde Engineering, a subsidiary of Linde, a leading global industrial gases and engineering company, have entered into a Memorandum of Understanding to explore collaboration opportunities to decarbonize the SD Ethylene Glycol Process. This collaboration seeks to develop innovative solutions to reduce carbon footprint and achieve low-carbon emissions technology by offering SABIC's innovative CO2 recovery and purification technology to SD licensed manufacturing glycol plants worldwide. The ultimate goal is to establish sustainable Ethylene Oxide and Ethylene Glycol production and set industry benchmarks for carbon-neutral industries. **13th December 2023**

ASIA EXCLUDING GULF COOPERATION COUNCIL (GCC)

INDIA	<ul style="list-style-type: none">• <u>India's ONGC awards key subsea contract to leading shipyard</u> India's state-controlled Oil & Natural Gas Corporation (ONGC) has awarded a key subsea pipelaying contract to a leading domestic shipyard, as it continues to spend on crucial west coast brownfield developments. The nation's domestic crude production has been dwindling in recent years and ONGC is under increasing pressure from the government to boost its oil output and reverse the decline. 11th December 2023
ISRAEL	<ul style="list-style-type: none">• <u>Zion Oil & Gas receives regulatory approval for strategic recompletion project in Israel</u> Zion Oil & Gas, Inc. (OTCQX: ZNOG) announces the approval of its workplan by the Israel Ministry of Energy for its MJ-01 recompletion project. Israel is open for business and we are grateful for the Israeli government's green light on our workplan, allowing us to move ahead with the MJ-01 recompletion project," said Rob Dunn, CEO of Zion Oil & Gas. "This is an exciting time for Zion as we implement cutting-edge technologies and stimulation methods to potentially unlock previous and newly identified zones of interest. Amidst the war in Israel following the atrocities on October 7, Zion has maintained secure operations with the site and rig unharmed. The company now targets a Q1 start date post-holidays. Zion has secured service contractors and ancillary items required for efficient operations. This workplan approval follows the acquisition of Exploration License 434 on September 19. This "Megiddo Valleys License" spans approximately 75,000 acres and signifies a deep commitment to Israel's energy landscape. 7th December 2023
IRAQ	<ul style="list-style-type: none">• <u>Iraq anticipates major boost in natural gas production with foreign investments</u> Iraq expects a major increase in natural gas production, with new foreign projects adding 84.95 million cubic metres daily. Iraq is poised for a significant increase in its natural gas production, with new projects awarded to several foreign companies expected to add nearly 84.95 million cubic metres per day to the nation's output. This development was announced by the Iraqi Oil Minister, Hayan Abdel Ghani, highlighting a major stride in the country's energy sector. In a recent statement, Abdel Ghani noted, "We expect the projects that have been undertaken by foreign firms and those to be carried out in those concession areas to produce nearly 84.95 million cubic metres per day of gas." This increase is a part of Iraq's broader initiative to enhance its energy independence and reduce reliance on imports. 14th December 2023
INDONESIA	<ul style="list-style-type: none">• <u>Japanese contractor scoops Indonesian LNG prize</u> Japanese engineering giant Chiyoda has won a key term contract for a liquefied natural gas project in Indonesia. Chiyoda on Monday confirmed it had been awarded a three-year technical services agreement for the Donggi Senoro LNG project in Sulawesi. The agreement encompasses engineering, technology and process safety support for the operational liquefaction project that has nameplate capacity of 2 million tonnes per annum. 11th December 2023• <u>ACWA Power Inks Agreement for Development of Indonesia's Largest Green Hydrogen Project</u> During the ongoing 28th United Nations Climate Change Conference (COP28) in Dubai, Saudi-based ACWA Power, recognized as the world's largest private water desalination company and a trailblazer in the energy transition, unveiled plans to embark on Indonesia's most expansive green hydrogen venture. In collaboration with PT Perusahaan Listrik Negara (PLN), Indonesia's state-owned electricity provider, and PT Pupuk Indonesia, a state-owned chemical and fertilizer producer, ACWA Power CEO Marco Arcelli sealed the agreement. The initiative aims to establish Indonesia's significant green hydrogen facility named Garuda Hidrogen Hijau (GH2) Project. The engineering procurement and construction (EPC) bidding process for the GH2 Project is scheduled to initiate in early 2024, with financial closure expected by the end of 2025. 7th December 2023

MALAYSIA	<ul style="list-style-type: none"> <u>PTTEP strikes triple new discoveries in Malaysia</u> The company is strategically poised to expedite the development of these discoveries through a cluster development approach, paving the way for long-term growth in Malaysia. PTTEP yields remarkable oil and gas consecutive discoveries offshore Malaysia, one of which marks a considerable petroleum potential PTTEP has explored in the country. The company is strategically poised to expedite the development of these discoveries through a cluster development approach, paving the way for long-term growth in Malaysia. 8th December 2023
PAKISTAN	<ul style="list-style-type: none"> <u>Discovery: Gas condensate found by state oil company amid 'aggressive' exploration effort</u> OGDC delivers again in Sindh province. Pakistan's Oil & Gas Development Company (OGDC) has come up trumps with its Dars West 2 well located in Sindh province onshore Pakistan. The nation's leading state-owned upstream player confirmed the discovery well tested at 8.51 million cubic feet per day of gas and 360 barrels per day of condensate through a 32/64-inch choke with a wellhead flowing pressure of 1947 pounds per square inch (psi). The well in Tando Allahyar district was drilled to a total depth of 2081 metres and tested the Lower Guru C-Sand formation. OGDC noted that the gas condensate discovery, which was the result of its "aggressive" exploration strategy would add to the hydrocarbon reserves base of the company, its joint venture partner and the country. OGDC operates the Dars West development and production lease with a 77.5% interest and its sole partner is Government Holdings (Private) on 22.5%. 11th December 2023 <u>Aramco to acquire a 40% stake in Gas & Oil Pakistan</u> Aramco, one of the world's leading integrated energy and chemicals companies, signed definitive agreements to acquire a 40% equity stake in Gas & Oil Pakistan Ltd. ("GO"). The planned acquisition is Aramco's first entry into the Pakistani fuels retail market, advancing the Company's strategy to strengthen its downstream value chain internationally. This transaction would enable Aramco to secure additional outlets for its refined products and further provide new market opportunities for Valvoline-branded lubricants, following Aramco's acquisition of the Valvoline Inc. global products business in February 2023. 12th December 2023
THAILAND	<ul style="list-style-type: none"> <u>Oil flowing again at Asian offshore field where expansion FID anticipated in 2024</u> Thai asset back on stream with production boost in sight. Canadian independent Valeura Energy has finally restarted production at its Wassana oilfield offshore Thailand, where the company next year is eyeing the final investment decision to expand the asset. Valeura is working towards a potential longer-term redevelopment of Wassana to commercialise the two appraisal discoveries it made in the third quarter by adding reserves and expanding the overall capacity of the field. Concept selection work is progressing, and the operator anticipates taking FID on the expansion in 2024. Crude started flowing again on Friday from Wassana, which is located in the Gulf of Thailand. In the coming days, Valeura intends to mobilise its contracted drilling rig to the field and, once in position, further wells will be brought on stream to ramp up production volumes. The operator plans to conduct an infill drilling programme comprising three production-oriented horizontal development wells targeting deeper reservoir intervals within the field. 11th December 2023
AFRICA	
ALGERIA	<ul style="list-style-type: none"> <u>Algeria invests in energy expansion: Minister Arkab unveils \$42B plan</u>

	<p>Algeria invests \$42 billion in gas production to increase exports, focusing on meeting Europe's growing demand and enhancing capabilities. Algeria has embarked on a substantial enhancement of its gas production capacities, signalling a major shift in the energy sector. The Minister of Energy has confirmed that several new gas fields have recently become operational, with more set to come online before the end of the year. This significant upsurge in production is part of the state-owned energy company SONATRACH's ambitious investment plan, committing \$42 billion to increase oil and gas output. 13th December 2023</p>
ANGOLA	<ul style="list-style-type: none"> • <u>Fresh FPSO front-runner emerges for challenging TotalEnergies Angola project</u> French supermajor in exclusive talks with floater provider on delayed 70,000 barrels per day development. TotalEnergies is in exclusive discussions with a European player about providing a floating production, storage and offloading vessel for the delayed Cameia-Golfinho project in Angola. The Cameia-Golfinho development is deemed crucial for the Angolan government's efforts to attract upstream investments, sustain oil production levels and open up the pre-salt Kwanza basin to more activity. In 2021, the French giant launched a front-end engineering and design competition for the FPSO, with plans to make a final investment decision the following year. 8th December 2023
CAMEROON	<ul style="list-style-type: none"> • <u>Douala drinking water mega-project to kick off in 2024</u> Douala drinking water mega-project to kick off in 2024. The Douala drinking water mega-project is set to kick off in 2024 according to Prime Minister Joseph Dion Ngute. The Minister of Water and Energy (Minne), Gaston Eloundou Essomba, on the other hand, said that the project aims to enhance the supply of drinking water to the city of Douala and its surroundings. This will be achieved by producing an additional 400,000 m3 of potable water per day and increasing the city's production capacity to 703,400 m3 per day as a result. The agreement was signed between Camwater, BESIX Group and Ersan İnşaat Proje Turizm Sanayi ve Ticaret A.Ş.(ERSA) Construction. The completion of the Douala drinking water mega-project Following the start of its implementation, the project is expected to be completed within 36 months. Once operational, it is, however, not expected to fully resolve the drinking water deficit in Douala and its surroundings. According to Camwater, these regions have a total deficit of 500,000 m3 per day. 13th December 2023
EGYPT	<ul style="list-style-type: none"> • <u>Saudi-led consortium secures major service contract with Egyptian Petroleum Corporation</u> Saudi-led consortium signs 10-year contract with EGPC to boost production in Egypt's SUCO and OSOCO oil fields. A consortium headed by the Saudi-listed ADES Holding Company has inked a milestone service contract with the Egyptian General Petroleum Corporation (EGPC). This agreement, announced on Wednesday, is focused on operating and enhancing production in Egypt's SUCO and OSOCO brownfields. 13th December 2023 • <u>Egypt and Yemen explore joint ventures in oil and gas</u> Egypt and Yemen discuss cooperation in oil, gas, and mining sectors, aiming to revitalise Yemen's economy amid political challenges. In a pivotal development for regional cooperation, Egyptian Minister of Petroleum and Mineral Resources Tarek El Molla has shown a strong interest in partnering Egyptian petroleum companies with their counterparts in Yemen. This intention was highlighted during a meeting with Yemen's Minister of Oil and Minerals, Saeed Al-Shamasi, at the sidelines of the 12th Arab Energy Conference in Qatar. 14th December 2023
NIGERIA	<ul style="list-style-type: none"> • <u>Nigeria's NNPC signs LNG deals with Wison and SDP Services</u> The agreements come amid Nigeria's efforts to enhance energy security by utilising its huge natural gas resources. Nigeria's state oil company, National Petroleum Company (NNPC), has signed two agreements to increase the scope of its liquefied natural gas (LNG) offerings for both local and foreign

markets. The agreements have been signed at the ongoing UN Climate Change Conference (COP28) being held in Dubai, United Arab Emirates, according to a press release posted by NNPC on X, formerly Twitter. These deals come amid Nigeria’s efforts to drive economic growth and enhance energy security by utilising its huge natural gas resources. NNPC has signed a memorandum of understanding (MoU) with China-based Wison Heavy Industry to develop a floating LNG project in Nigeria. The project will target the international LNG market. Furthermore, NNPC Trading’s subsidiary, NNPC Prime LNG, has signed an agreement with independent oil and gas company SDP Services for the supply, installation and commissioning of a small-scale LNG (SSLNG) project. **7th December 2023**

- **N19.41bn secured for Falcon's LPG storage and Jetty in Port Harcourt**

N19.41bn secured for Falcon’s LPG storage and Jetty in Port Harcourt For the ongoing construction of the 15000MT LPG storage and Jetty in Port Harcourt, Falcon has secured an N19.41 billion facility. The monies came from Chapel Hill Denham Nigeria Infrastructure Debt Fund (NIDF), the first and only infrastructure debt fund dedicated to and domiciled in Nigeria. Current status of Falcons 15000MT LPG storage and Jetty in Port Harcourt

The 15000MT LPG storage and Jetty are being built in Rumuolumen, Saipem/Aker Base Road, Port Harcourt, River’s state. This location is close to major gas sources and navigable water routes. The initial phase of the project comprises the construction of a 10,000 metric ton spherical tank made up of two 5,000 metric tons tanks. It also encompasses the construction of a dedicated jetty and other associated infrastructure. The second phase on the other hand will involve the development of an additional 5,000 metric tons of storage. Overall, the construction of Falcons 15000MT LPG storage and Jetty in Port Harcourt has reached an advanced stage. Significance of Falcons 15000MT LPG storage and Jetty in Port Harcourt Falcons 15000MT LPG storage and Jetty in Port Harcourt is set to facilitate and enhance more direct procurement and distribution of LPG. **7th December 2023**

- **Shell Eyes \$6BN in Nigeria Offshore, Gas Investments**

Oil giant Shell sees \$6 billion in investment opportunities in Nigeria, especially in offshore, gas and liquefied natural gas (LNG) projects, the country’s presidency said in a statement on Friday. Nigeria, the continent’s top economy and major oil producer, is seeking to attract more foreign investment since President Bola Ahmed Tinubu came to office in May with a raft of economic reforms. After meeting with Tinubu in Abuja, Shell representative Zoe Yujnovich announced an “imminent” \$5 billion investment in the Bonga North offshore project and commitment to another \$1 billion over the next 5 to 10 years in gas and LNG, according to a presidency statement. **11th December 2023**

SENEGAL

- **SNE Deepwater Oil Field**

The Sangomar deepwater oil field, located 100km south of Dakar, Senegal, is expected to start production in mid-2024.

Project Type	Offshore deepwater oilfield development
Location	Senegal
Ownership	Woodside Energy (82%), and PETROSEN (18%)
Operator	Woodside Energy
First Oil	2024
Production Capacity	100,000 barrels of oil per day (bopd)
Host Platform	Standalone FPSO

The Sangomar (formerly SNE Deepwater) oil field is located in the Rufisque, Sangomar and Sangomar Deep Blocks, which cover a combined area of 7,490km² within the Senegalese portion of the Mauritania-Senegal-Guinea Bissau Basin. The field was one of the world’s largest oilfields in 2014. The project is being developed by a joint venture of Rufisque Offshore, Sangomar Offshore and Sangomar Deep Offshore, comprising Woodside Energy (82%) and PETROSEN (18%), with Woodside Energy as the project operator. The first oil from the project is anticipated to flow in mid-2024. Production from phase one is expected to be approximately 231 million barrels (MMbbl) of oil. The total recoverable oil resources are estimated to be around 500MMbbl over the life of the field. The cost of the project is estimated to range

between \$4.9bn and \$5.2bn. The first oil from the project is anticipated to flow in mid-2024. The cost of the project is estimated to range between \$4.9bn and \$5.2bn. **8th December 2023**

AUSTRALIA

AUSTRALIA

- **World-First Natural Gas Research Facility by Curtin University Breaks Ground**
The construction of a leading natural gas research facility in Western Australia, which is expected to revolutionize global offshore asset management, has formally started. This brand-new world-class facility led by Curtin University and Chevron Australia will spearhead research in developing innovative solutions for global corroding of natural gas pipeline infrastructure. The newly designed flow loop research field has a purported construction cost of about ~\$4 million. The project will be unique in that it has specialized research ability and can be applied in a real-life scenario. Furthermore, the natural gas research facility is an international leader on natural gas corrosion studies. This is because it aims at controlled variation of multiple corrosion factors and novel mercury contamination experiments. This makes it unique that no other purpose-built flow loop in the world can boast of such credentials. **7th December 2023**
- **Papua New Guinea in Advanced Talks With Chinese Banks to Fund Its Stakes in LNG Megaprojects**
Papua New Guinea's state-owned petroleum company is in advanced talks with Chinese banks to help fund its stakes in the two major liquefied natural gas (LNG) projects in the country, a senior executive said on Monday. Kumul Petroleum is holding talks with banks in the U.S., Europe and Australia, but its managing director Wapu Sonk said talks with Chinese banks had gone further as they had fewer concerns around fossil fuel development. "Most of the funding discussions are really with Chinese backed banks because they have a different view on ESG," he said, referring to environmental, social and governance issues. The Bank of China (601988.SS), ICBC (601398.SS) and Bank of Communications (601328.SS) were among those involved, he said. The state-owned venture must raise roughly \$1.34 billion to buy the remainder of a 5% stake in the PNG LNG project from Santos (STO.AX) and fund a 22.5% share of the Papua LNG project once it is approved next year, Sonk said. **11th December 2023**
- **First major contract awarded for SRL Tunnels**
The first tunnels contract has been awarded for Suburban Rail Loop (SRL) East, with tunnelling to start in 2026, transforming Melbourne's public transport network and creating thousands of jobs. A consortium of global tunnelling experts has been awarded the \$3.6b Tunnels South contract to build 16km of twin tunnels between Cheltenham and Glen Waverley. CPB Contractors, Ghella and Acciona Construction have extensive experience in Victoria and Australia as well as overseas. The contract includes several industry-leading innovation and environmental initiatives, which will help make SRL East one of the most sustainable projects in Australia's history. The 4 tunnel boring machines (TBMs) for this section will be powered by renewable electricity, and construction and materials emissions will be reduced by 20%. On the jobs front, opportunities will be boosted for skilled workers and training and at least 12% of hours to be worked by trainees, apprentices and cadets. In addition, 2 shortlisted bidders for the Tunnels North contract between Glen Waverley and Box Hill are now at the Request for Proposal stage, with the contract to be awarded next year. In a separate package of works, 2 consortia have been shortlisted to build the fleet of high-tech SRL trains, signalling system, and operation and maintenance of the SRL East network. This Linewide Alliance contract is expected to be awarded in 2025. **12th December 2023**

EUROPE

NORWAY

- **Longboat to farm down two Norwegian exploration licences to Concedo**
Longboat JAPEX has reduced its stake from 30% to 15% in PL1182S, in exchange for a full carry of the Lotus exploration well, and farmed down its stake in PL1049 from 40% to 25% in exchange for Concedo funding 15% of its 2024 exploration. UK-based oil and gas drilling services provider Longboat Energy has announced the farm-down of its two exploration licences on the Norwegian Continental Shelf (NCS) to Norwegian oil exploration services company Concedo. Longboat Energy, through its Norwegian joint venture Longboat JAPEX Norge, has signed an agreement with Concedo. Under the terms of the deal,

Longboat JAPEX has reduced its stake from 30% to 15% in PL1182S, in exchange for a full carry of the Lotus exploration well, which is anticipated to spud in Q3 2024. The company also farmed down its stake in PL1049, which contains the Jasmine and Sjøkreps prospects, from 40% to 25%, in exchange for Concedo funding 15% of its 2024 exploration. **11th December 2023**

- **Norway Oil and Gas Investments Set to Soar in 2024, Industry Says**

Oil and gas companies operating in Norway are expected to invest 240 billion Norwegian crowns (\$21.85 billion) in 2024, up from 220.5 billion in 2023, and more than previously expected, an industry group said on Wednesday. Offshore Norway, which published the new forecast based on a survey of its members, had previously predicted 2024 oil and gas investments would amount to 194.3 billion crowns. The rise was the result of new developments, increased scope of ongoing projects as well as inflation and a weak currency, the group said. "In Norway there is high pressure in the (offshore drilling) rig market, but internationally the subsea market contributes to rising prices the most," Marius Andersen, chief economist at Offshore Norge, told Reuters. In the years after 2024 investments will gradually decline, to 166.5 billion in 2028 as major projects are completed. **13th December 2023**

- **Neptune Energy and partners make new gas discovery in North Sea's Gjøa area**

Furthermore, Neptune Energy has validated the volumes for the Ofelia appraisal well, situated in the PL 929 license along with Kyrre. Neptune Energy and its partners have made a new gas discovery at the Kyrre prospect near the Gjøa field in the Norwegian North Sea through the drilling of the 35/6-4 A side-track well. The estimated recoverable resources of the Kyrre discovery range from 11-19mmboe of gas. Furthermore, Neptune Energy has confirmed the volumes for the Ofelia appraisal well, which along with Kyrre, is located in the PL 929 licence. According to the company, the anticipated recoverable volume for the Ofelia discovery falls within the range of 16-33 million barrels of oil equivalent (mmboe). Combining both discoveries, the total recoverable volume is approximately 27-52mmboe. The Ofelia oil and gas discovery was made in August 2022 through the drilling of the exploration well PL 929. Its appraisal well, 35/6-4 ST2, was completed in the Agat formation. The semi-submersible rig Deepsea Yantai, owned by CIMC and operated by Odfjell Drilling, drilled the 35/6-4 ST2 and 35/6-4 A wells. **13th December 2023**

POLAND

- **Construction Of Long-Distance High Speed Rail Tunnel In Łódź Has Begun**

The construction of the Centralny Port Komunikacyjny (CPK) long-distance high-speed rail (HSR) tunnel in Łódź, Poland, has begun. CPK has signed the second of three construction contracts for its most advanced railway project. The over 4-kilometre HSR tunnel in Łódź is a key element of the "Y", a route designed to connect Warsaw with Łódź, Poznan and Wrocław. CPK plans to complete the construction of the tunnel simultaneously with the launch of the first stage of the CPK airport. The construction of the CPK long-distance tunnel in Łódź has been divided into three parts. The first one, which began in September 2023, included work aimed at strengthening the foundations of the Łódź Cultural Centre (LDK). This investment is being carried out by Keller Polska. The route lies directly under LDK— on the western side of the Łódź Fabryczna railway station where the HSR tunnel will begin. CPK has signed a contract for the second stage, i.e. the construction of the chambers for the tunnel boring machines (TBM) launch at Retkinia and exit portal near LDK. **11th December 2023**

SWITZERLAND

- **PERI acquires majority stake in KERN Tunneltechnik SA**

With effect from 7 December 2023, PERI SE acquired a majority stake in KERN Tunneltechnik SA, based in Lugano, Switzerland. The KERN Group currently has around 80 employees at three locations and is a leading provider of secondary lining solutions for tunnelling projects the production of in-situ concrete inner shells for the construction of tunnels using the mining method. KERN Group's main markets are the DACH region, the UK and the USA. In addition to the construction of special machines, KERN offers complete logistics solutions and engineering services for more complex construction projects with a high degree of engineering expertise. The company will continue to operate as an independent unit within the PERI Group under its current management, brand and company name. All KERN employees will be

taken over and all company locations will be retained. For many years, PERI has been one of the technical leader companies for formwork solutions in the field of standard and special tunnel projects. Both companies share the goal of rationalising customers' construction processes and thus making construction safer and more economical. **12th December 2023**

UK

- **Drilling success opens door to further development of UK offshore gas asset | Upstream Online**
Anglo-French independent Perenco has come up trumps with a discovery near its producing Ravenspurn South (RS) gas field in the Southern North Sea, paving the way for further development of the UK offshore asset. Perenco on Monday confirmed it had delivered with the C06 well, which proved gas in a previously undrilled fault block downdip of the producing RS field. The new well encountered a 90-metre section of fully gas-bearing Lower Lemn sandstone in the Rotliegend formation, with reservoir properties in line with nearby RS producers. The initial production rate from this latest well, forecast for January 2024, is expected to be about 12 million cubic feet per day of gas (2000 barrels of oil equivalent per day), delivering 21 billion cubic feet (3.5 million barrels of oil equivalent) in incremental reserves after 30 years. C06 was the third well drilled using the Valaris 247 rig, following the successful Ravenspurn North D15 and D16 sidetracks that today are producing a combined 30 MMcfd of gas. After completion with the Valaris-247 rig, the C06 well will be stimulated with support from the Petrodec ERDA jack-up barge. **11th December 2023**
- **HS2 tunnel boring machine gets ready to start digging under Birmingham**
A team of 90 specialist engineers have completed the assembly of HS2's giant tunnel boring machine (TBM) which will start digging the second bore of the 3.5 mile Bromford Tunnel into Birmingham next year. In an assembly operation to move sections of the machine into a 12-metre deep launch pit, two 600 tonne cranes lifted the huge 125 tonne cutterhead into place at the front of the 125 metre long machine in the pit bottom. The first TBM, named 'Mary Ann' after Mary Ann Evans the real name of Victorian writer George Eliot who was born in Nuneaton started digging the first bore from the east portal site near Water Orton in August this year. It has already built more than 500 tunnel rings, which is 0.6 miles of the 3.5 mile long tunnel between North Warwickshire and Washwood Heath in Birmingham. The name of the second TBM will be revealed before it launches in Spring next year. **12th December 2023**
- **Hs2's Procurement Pipeline Worth £1bn Boost For British Businesses**
HS2 has published details of over 300 work packages its construction partners will procure in the next 18 months. The contract opportunities, collectively worth over £1bn, give a heads up to potential suppliers looking to boost their order books and grow their business in the year ahead. Over 3,200 companies are already delivering goods and materials to help build HS2, Britain's new railway. Completing the 140-mile HS2 network, complete with four new stations and two depots between London and Birmingham, requires the expertise of businesses and suppliers from across the world. To date UK businesses have secured over £17bn worth of work on HS2 and 2024 promises even more opportunities to get involved. **8th December 2023**
- **Bouygues Travaux Publics Murphy JV wins Lower Thames Crossing tunnelling contract**
National Highways has awarded Bouygues Travaux Publics – Murphy Joint Venture (BMJV) the Lower Thames Crossing Tunnels and Approach contract to build the country's largest bored tunnels. The award completes the assembly of the Lower Thames Crossing delivery team, with BMJV joining Balfour Beatty building the roads north of the Thames, and Skanska which will build the roads in Kent. The Lower Thames Crossing is a proposed new road connecting Kent and Essex that will almost double road capacity across the Thames east of London. The 4.2km twin-bore river crossing will be the longest UK road tunnel and, with a diameter of over 16m, one of the largest tunnels in Europe. The scheme has been designated a 'pathfinder' project to explore carbon neutral construction as part of National Highways' efforts to make the new crossing the greenest road ever built in the UK. **8th December 2023**
- **Irish water project prepares for second tunnelling phase**

Preparations are under way for the second phase of tunnelling for the wastewater upgrade in Athlone, Co Westmeath, Ireland. Uisce Éireann (formerly Irish Water), in partnership with Westmeath County Council, is installing nearly 3km of underground sewer pipes to reduce the risk of sewer flooding in Athlone and improve water quality in the River Shannon. Tunnelling for the Athlone Main Drainage Scheme began in September in the Deerpark/Showgrounds area of Athlone. These works are scheduled for completion in early 2024. The project is using micro-tunnelling to minimise disruption to the community and on the environment. The €114m investment is one of the largest capital investments by Uisce Éireann to date. Commenting on the importance of this phase of the project, Eunan Canavan, Portfolio Manager at Uisce Éireann, said: “We are delighted that this essential capital investment for the people of Athlone has made so much progress over the last twelve months, and we look forward to moving on to the next phase in January of next year. **8th December 2023**

NORTH & SOUTH AMERICA

BRAZIL

- Weatherford awarded 10K DPR intervention services contract with Petrobras**
 The new seven-system contract will commence operations March 2025 and will replace a current six-system contract that began in November 2020. Weatherford International plc (NASDAQ: WFRD) (the “Company” or “Weatherford”) announced it has been awarded a five-year contract with Petróleo Brasileiro S.A. (“Petrobras”) in Brazil, after a competitive tender, to provide Drill Pipe Riser (DPR) ultra deepwater offshore intervention systems and services. This new seven-system contract will commence operations March 2025 and will replace a current six-system contract that began in November 2020. **7th December 2023**
- Libra Consortium and Halliburton Landmark collaborate to develop field digital twin**
 The Libra digital twin will help the consortium reduce capital expenditures, accelerate production times, and improve crude oil recovery rate using new insights obtained in a real-time environment. Halliburton Company (NYSE: HAL) announced it will work with Libra Consortium, lead by Petrobras, to develop a digital twin for a pre-salt field system in Brazil. The Libra digital twin will help the consortium reduce capital expenditures, accelerate production times, and improve crude oil recovery rate using new insights obtained in a real-time environment. The digital twin is a virtual representation of the physical asset that replicates its behavior and characteristics. It allows operators to run “what if” scenarios to improve decision-making and maximize operational predictability for optimal field development. Halliburton and Libra Consortium will develop an integrated and dynamic digital twin of the production system, including the reservoir, wells, and subsea network. It brings together asset sensors, data, and models, including 4D seismic, and smart completions through systems with a real-time view of the reservoir, wells, and facilities. **12th December 2023**

CANADA

- Angkor Resources acquires oil production and expands carbon/gas capture**
 The transaction values the total Project at \$11,500,000, making the purchase price of the 40% interest with adjustments at \$4,392,000 (all values in CAD). ANGKOR RESOURCES CORP. (TSXV:ANK) and (OTC:ANKOF) (“ANGKOR”) announces that its 100%-owned energy subsidiary, EnerCam Exploration Ltd. (“EnerCam”), has signed agreements on Dec. 12th, 2023 with Project Operator Eyehill Creek Exploration Ltd. (“Eyehill”) and 358140 Alberta Ltd. (“358140”) to acquire a 40% interest in the Evesham/Macklin Production Project including the Oil Production from 33 vertical wells and the Gas Capture facility and all related pipelines and equipment (“the transaction”). The transaction values the total Project at \$11,500,000, making the purchase price of the 40% interest with adjustments at \$4,392,000 (all values in CAD). GLJ Petroleum Consultants (“GLJ”) was contracted to provide an independent assessment of the Project. Its report indicates Proved Developed Producing (“PDP”) oil reserves at 376,300 Barrels and gas reserves at 95 million cubic feet from the Project. Additional Probable Reserves add 109,000 Barrels of oil and 28 million cubic feet of gas to provide Total Proven and Probable (“TPP”) of 485,000 barrels oil and 123 million cubic feet of gas. The report indicates a Net Present Value (“NPV”) of PDP with a 10% discount to be \$11,171,000 and a NPV of TPP and a 10% discount of \$13,930,000 value. (excerpt from

report below). GLJ tracked a historical 10-year period up to September 2023 and forecasted a period to September 2033. **13th December 2023**

MEXICO

- **GATE Energy secures contract to commission Woodside Trion FPU**
The US-based commissioning services provider secured the contract from HD Hyundai Heavy Industries (HHI), which includes pre-commissioning, commissioning, planning and execution of Trion FPU at HHI's fabrication yard in Ulsan, South Korea. GATE Energy has secured a contract for the commissioning of the Woodside Trion Floating Production Unit (FPU) project, located around 180km off the Mexican coastline. The US-based commissioning services provider secured the contract from EPC contractor South Korean shipbuilding company HD Hyundai Heavy Industries (HHI). The scope of the contract includes pre-commissioning and commissioning planning and execution at HHI's fabrication yard in Ulsan, South Korea. **7th December 2023**
- **Houston Natural Resources portfolio company completes business combination**
HNRA is now an independent oil and natural gas company focused on the acquisition, development, exploration and production of oil and gas properties in the Permian Basin. HNRA is now an independent oil and natural gas company focused on the acquisition, development, exploration and production of oil and gas properties in the Permian Basin. The Company's assets include its interest in the Grayburg-Jackson oil field in the prolific Permian Basin in New Mexico. LHO was a privately owned company that operated the Grayburg-Jackson field (the "field") from early 2020 after acquiring the property in late 2019. The 2020 baseline production level was approximately 500 barrels of oil equivalent (BOE) per day. LHO's production has increased from the baseline 500 BOE to an average of 1,388 BOE per day for the nine months ended September 30, 2023. LHO had \$20.3 million in revenues generating positive cash flow and \$3.9 million of net income for the nine months ended September 30, 2023. As of September 30, 2023, total assets of LHO were \$70.4 million. **12th December 2023**
- **CM Energy led consortium won \$163.8m order for oil rig modernization and O&M services in Mexico**
Previously, the consortium has completed the modernization and upgrade for four similar old rigs for PEMEX, including a 7,000 meter rig which reportedly drilled a well with a total depth of 7,921 meters and initial oil production of 16,000 bbl/d TSC Manufacturing and Supply LLC ("TSC"), based in Houston Texas, a wholly-owned subsidiary of CM Energy Tech Ltd., received the first order of land rig modernization contract from Petróleos Mexicanos (PEMEX) in the amount of US\$13,211,970. This is the first of a series of orders under the bid won earlier by TSC. The total amount of the contracts for the equipment supplies and the maintenance service is about US\$98.1 million, which will be executed in batches with the completion at the end of 2025. The total amount of operation and maintenance contract is US\$65.7 million, which is expected to be completed by the end of 2025. This is also the first time for TSC's state-of-the-art control and drive systems and drilling cabins to enter the Mexican market. **11th December 2023**
- **Shell Offshore makes FID for phased wells campaign in US Gulf of Mexico**
The phased campaign is designed to enhance the output from the Perdido spar production platform in the US Gulf of Mexico by drilling three wells in the Great White unit. Shell Offshore, a subsidiary of British oil and gas company Shell, has made the Final Investment Decision (FID) for a phased drilling campaign in the US Gulf of Mexico. The campaign aims to boost production from the Perdido spar, a platform that serves three deepwater fields in the US Gulf of Mexico, Great White, Silvertip, and Tobago. It is designed to deliver three wells in the Great White unit, which is operated by Shell Offshore with a 33.34% interest, alongside Chevron (33.33%) and BP (33.33%). The three-well campaign is expected to produce up to 22000 barrels of oil equivalent per day (boe/d) from Perdido spar, which can produce up to 125,000boe/d at peak rates. Shell owns a 35% working interest in the Perdido Regional Host, alongside Chevron USA with a 37.5% interest, 3C Perdido with a 26.5% interest, and BP Exploration & Production holding a 1% interest. **13th December 2023**

USA

- **Venezuela prods BP, Chevron to revive gas project near Trinidad, Guyana**
Venezuela has begun contacting energy firms involved in a long-idled offshore gas project to push them to begin new exploration and operations near its maritime border with Guyana, five people close to the talks said. The request to act on blocks that have not been touched in more than a decade comes amid an escalating territorial dispute with Guyana that has rattled the country and led to an emergency meeting of the United Nations Security Council. Venezuelan President Nicolas Maduro wants state oil company PDVSA, and oil majors' BP (BP.L), Chevron (CVX.N) and Shell (SHEL.L) to revive an offshore project with some 8 trillion cubic feet of gas reserves. Called Plataforma Deltana, the discoveries were never developed amid insufficient capital, an unfinished sharing effort with Trinidad and Tobago into whose waters the field extends, and a lack of clear rules for investment. **9th December 2023**
- **Hawaiian Electric to Convert Waiiau Power Plant to Biodiesel, Renewable Gas**
Hawaiian Electric on Dec. 11 announced its proposal to replace six aging fossil-fuel generators at its Waiiau Power Plant with more efficient flex-fuel units that can be fueled with biodiesel, renewable gas or hydrogen will advance to the next phase of an energy procurement process overseen by the Hawaii Public Utilities Commission. The 253-megawatt (MW) project was one of several selected as part of a competitive procurement process for firm renewable generation on Oahu, according to Hawaiian Electric. The project still requires final approval by the PUC. Construction on the Waiiau Power Plant, located in Pearl City, Oahu, began in 1937. The facility's first two oil-fired steam turbines came online in 1938 and 1940, respectively. The new units are also destined to quickly respond to fluctuations on the electric grid. According to Hawaiian electric, the company plans to initially fuel the new units with biodiesel. **13th December 2023**

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