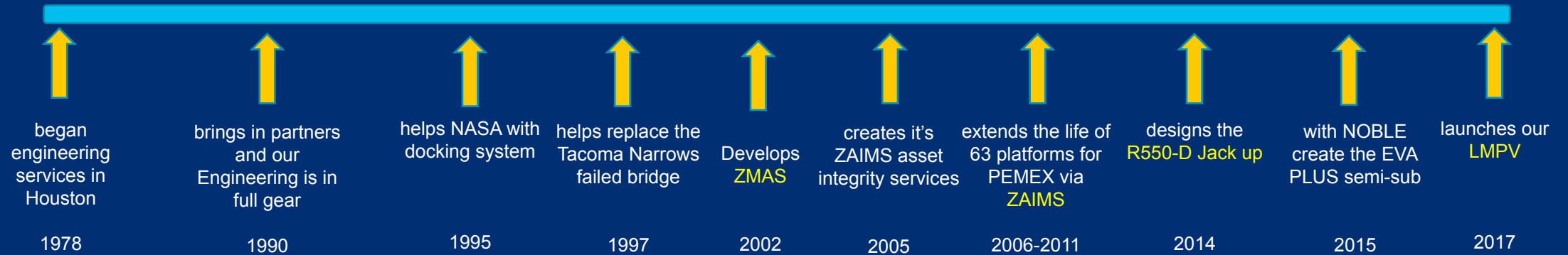


Liquid Mud Plant Vessel

Dynamically positioned, advanced drilling fluids service vessel

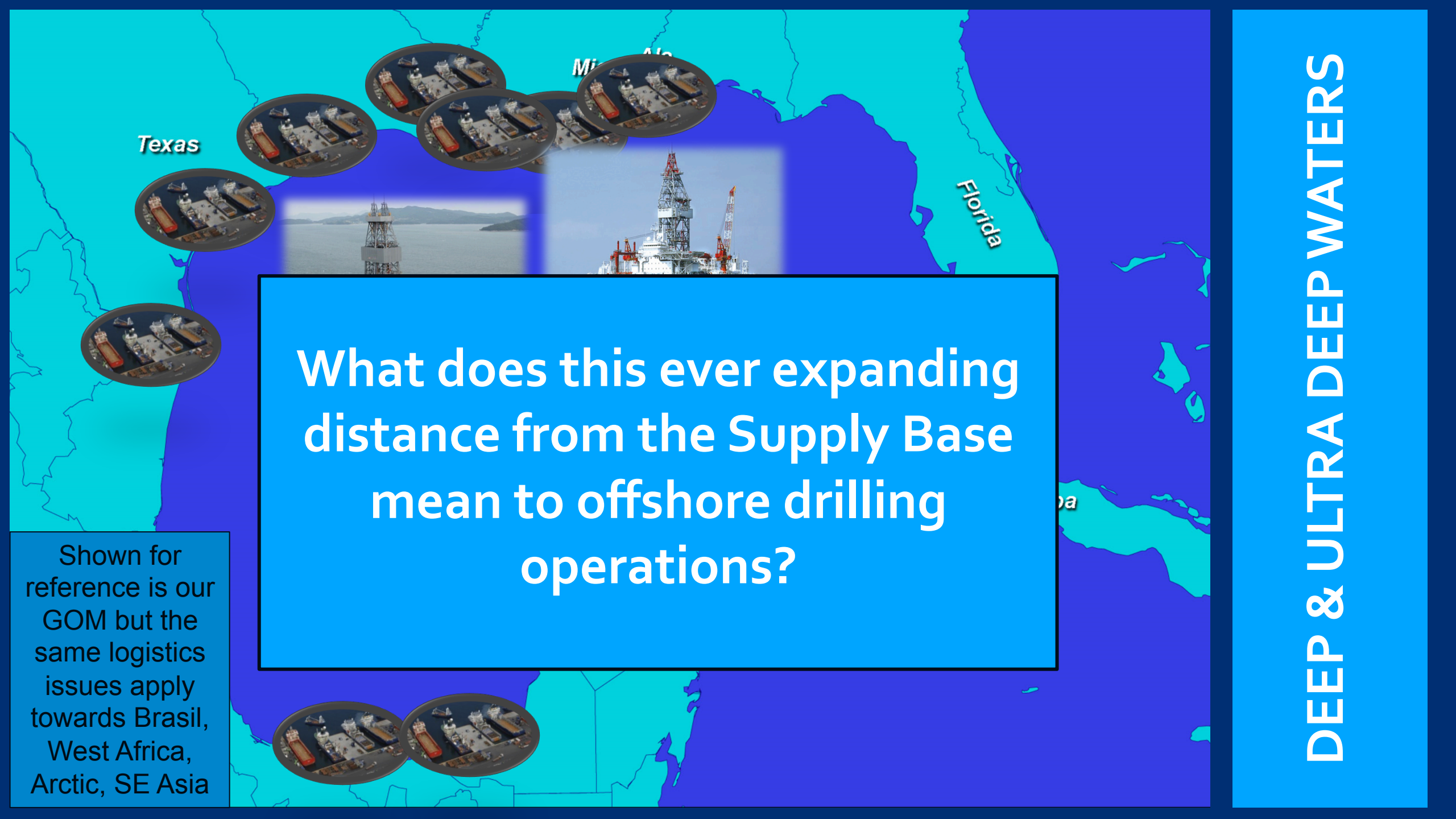
Introduction

ZENTECH Inc. Timeline



Joe Sherwood | Business development | Zentech Inc

- 10 years on the rigs
- 5 years in Fishing Tools
- 25 years in Drilling Fluids
- Rig of the Future-Schlumberger
- 13 patents all associated with drilling fluids
- Business development in Brasil, Singapore, USA



Texas

Florida

What does this ever expanding distance from the Supply Base mean to offshore drilling operations?

Shown for reference is our GOM but the same logistics issues apply towards Brasil, West Africa, Arctic, SE Asia

DEEP & ULTRA DEEP WATERS

Increased distance =
longer travel time

Within any shipyard,
steel = money.

On any offshore operation,
time = money.

Father Time



- Increased delay with any return to the rig
- Increased fuel consumption
- Increased non-productive time for both the OSV and the rig
- Reduction to access of needed solution
- Decreased mud properties in the asset (wellbore) for longer periods of time
- Operation becomes more exposed to both weather and local politics

In one sentence, what does our LMPV bring to your table?

We help you get to, *“First oil sooner & at a reduced cost”*.

LMPV.

Value added discipline accessibility

Every offshore well has 2 cost for the Operator:

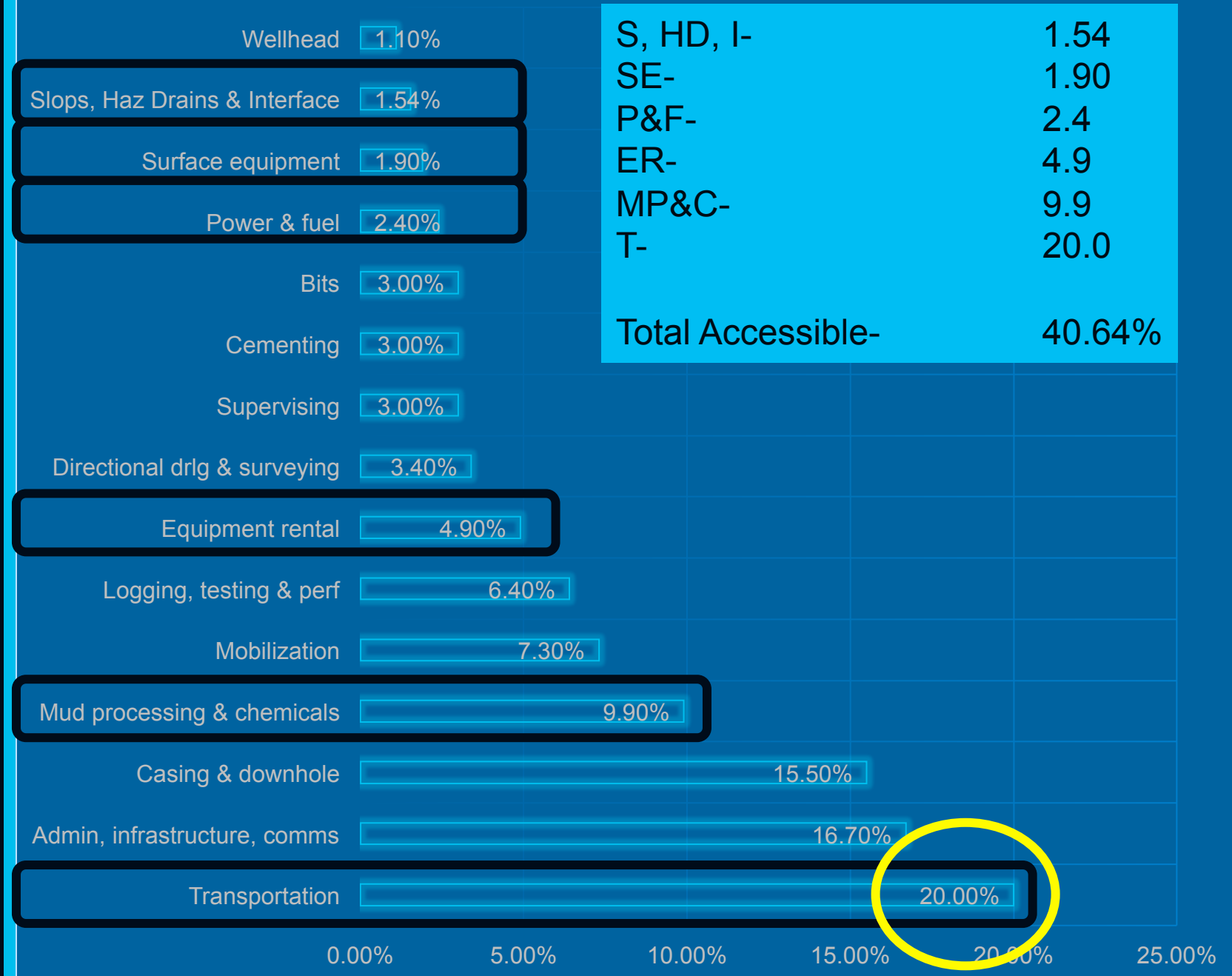
1. Rig day rate
2. Extended cost

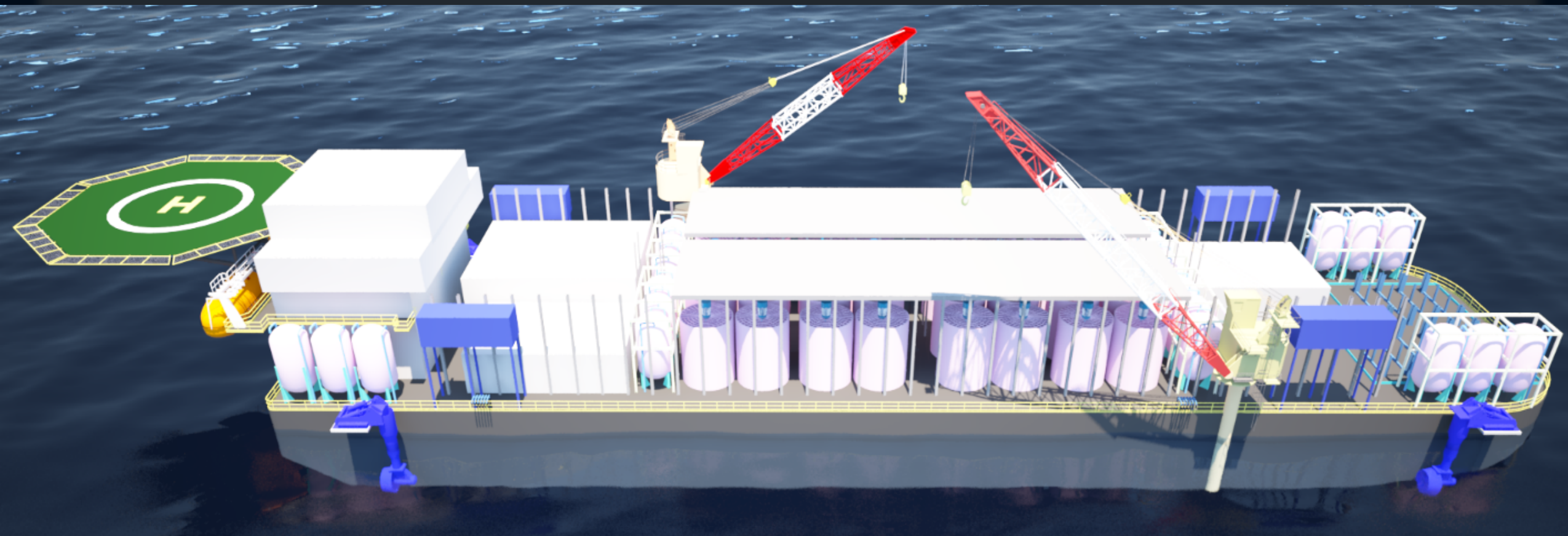
$$\text{Extended cost} = \text{rig day rate} \times 1.5$$

ASSUMPTIONS-
Extended cost formula has been validated by 3 x major Operators

Extended cost discipline breakdown % has also been validated by 3 major Operators

EXTENDED COST DISCIPLINE BREAKDOWN

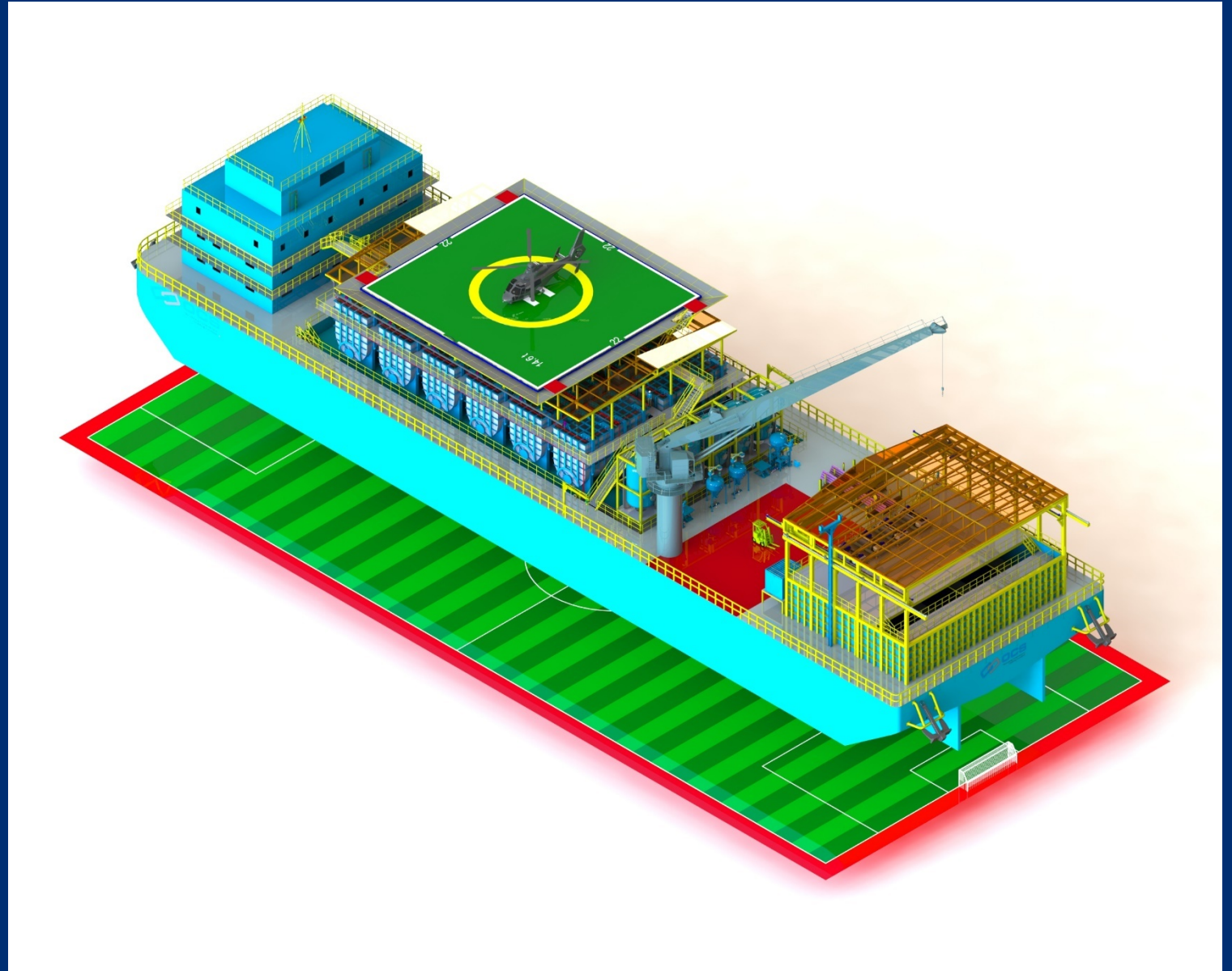




Liquid Mud Plant Vessel

Keeping things in perspective

- Remember how big a vessel we are talking about
- Lightship weight will be $> 11,000$ mt
- DWT will be $> 15,000$ mt



The Need

Market & Opportunity:

Zentech sees a marketable 'need' for our LMPV with every international operator entering into remote and/or deep water, then trying to counter:

- a. Long boat runs
- b. Existing or lack of quayside infrastructure & politics
- c. Drilling program demands



Base logistical (OSV) assumptions:

- a. Fast speed 11.5 kt / 12.8 mph
- b. Fuel consumption at > 175 gph @ \$ 1.80/gal
- c. Misc charges with harbor fee, loading fees, dock fees
- d. NPT transit, delay and harbor time

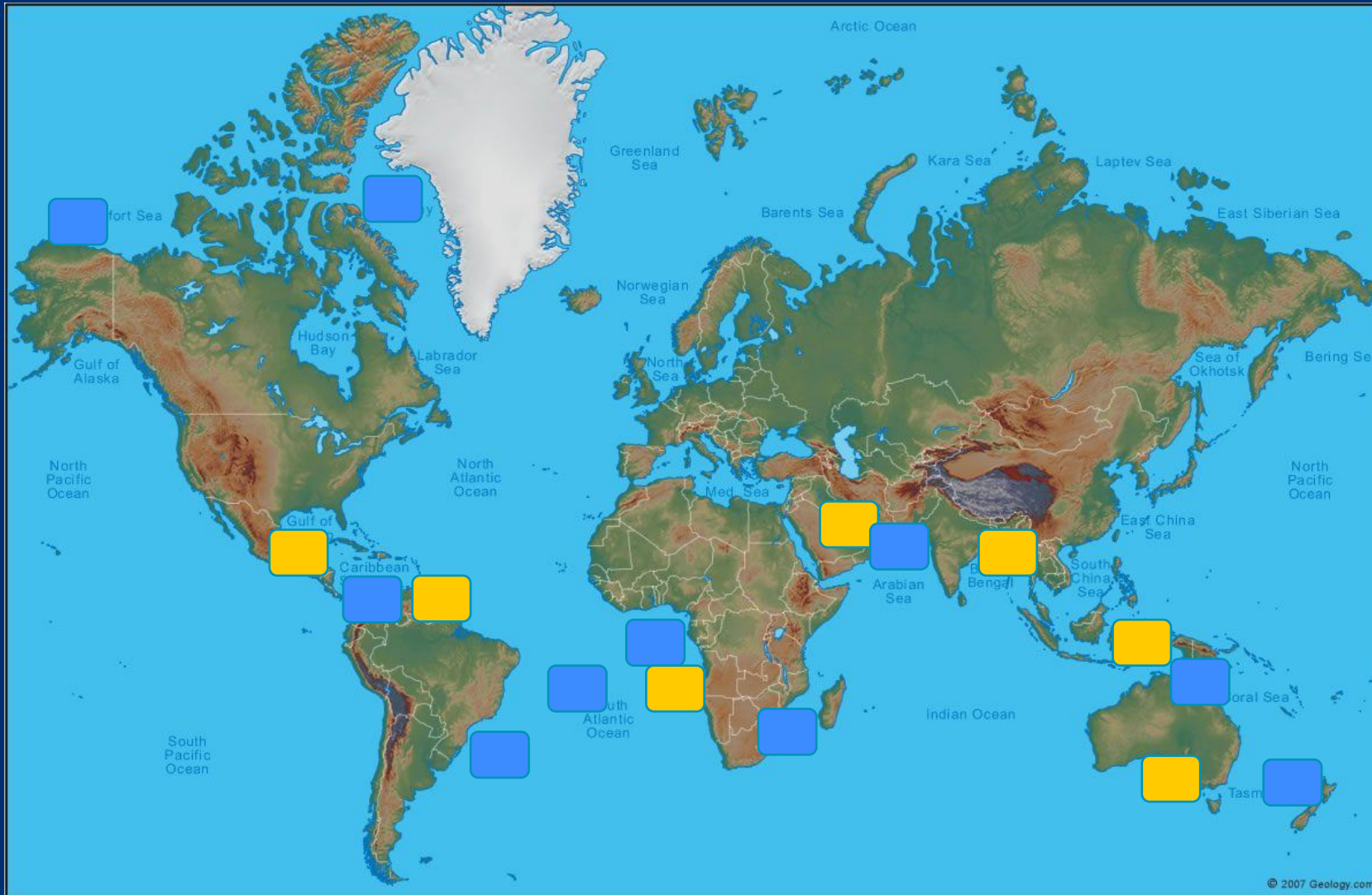
Operators will seek our support vessel because...

One or a series of the following demand the support of our LMPV:

1. Lack of existing or adequate infrastructure
2. Remote operations (extended OSV runs)
3. Environmental demands (or constraints)
4. Client(s) wish to centralize their operation
5. Client(s) want more control on their logistics, cost and NPT associated with same (due to local politics, harbor closings, union strikes, etc)
6. Client(s) have more than 1 rig operating in the same field

Current and Potential LMPV Markets

- SHELL
- BP
- BHP
- CHEVRON
- TOTAL
- ENI
- REPSOL
- PETROBRAS
- PTTEP
- STATOIL
- ANADARKO



- TRANSOCEAN
- NOBLE
- DIAMOND
- HALLIBURTON
- SCHLUMBERGER
- BAKER HUGHES
- OSV OPERATORS
- LOCALIZED (LC)
MUD COMPANIES

LMPV as a Marketing Differentiator

CONTRACTORS

Incorporation into it's fleet of rigs

Used as a tender differentiator

OPERATORS

Better mud properties in their asset (wellbore) for longer periods

Specify this vessel in any fluids tender

FLUIDS PROVIDERS

Incorporated into any "Incentive Based Pay" event

Used as a tender differentiator

OSV PROVIDERS

Incorporation into it's fleet of vessels

Used as a tender differentiator

Base design.

Base design is set up to support 2 x floaters or 4 x Jack Ups.

Elevator speech

Our dynamically positioned Zentech LMPV concept is not a new one. The Whaling industry was performing the same idea >200 years ago by positioning a “Mothership” centrally located and having satellite ships perform the logistics bringing the product to and from her, as needed. We are only following this centralized, efficient business model.

We are providing a close-proximity service platform from which we providing the centralization with many of the daily needed components (in particular we are delivering drilling fluid properties) that support any offshore rig, onto single location in this case which is a vessel and then positioning these components as close to the rig (or rigs) as possible.

What sets us apart is our (1)engineering time, (2)investment done to date, (3)our 30 years of drilling fluid experience & (4)our patent applied for DP-LMPV design itself.

Our vessel has one primary assignment and that is to, **“Deliver Mud Properties”**

Hard to quantify due to limited access to client documents & numbers, but interesting to discuss, are cost saving assumptions from always having your best mud properties in the well:

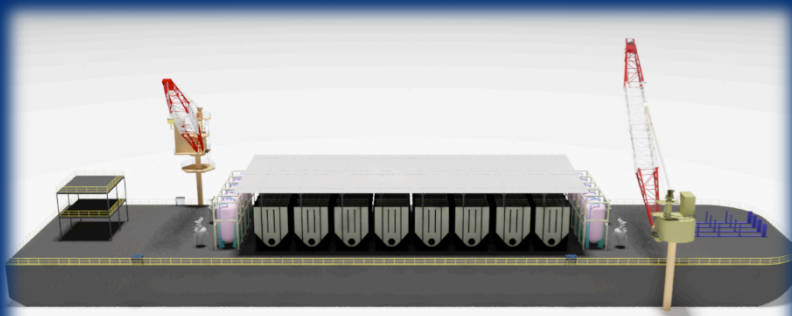
- a. Drilling NPT reduction associated with hole conditions
- b. ROP improvements
- c. Less ECD = deeper penetrations into depleted fields before losses occur = access to more reserves and less skin damage to the zones drilled
- d. More logs to bottom
- e. More casing to bottom

Value pricing by Client for these deliverables...?

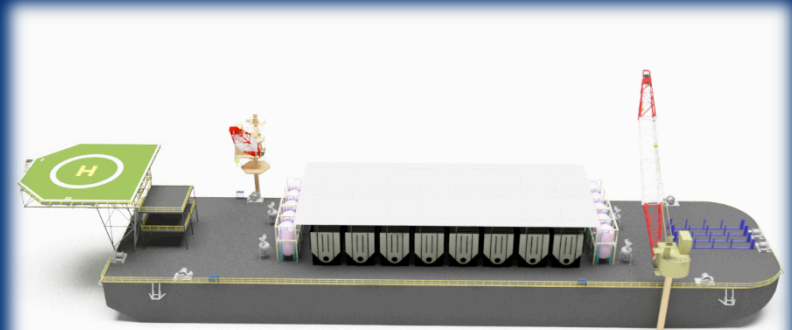
Same Base Design.

Same work-flow.

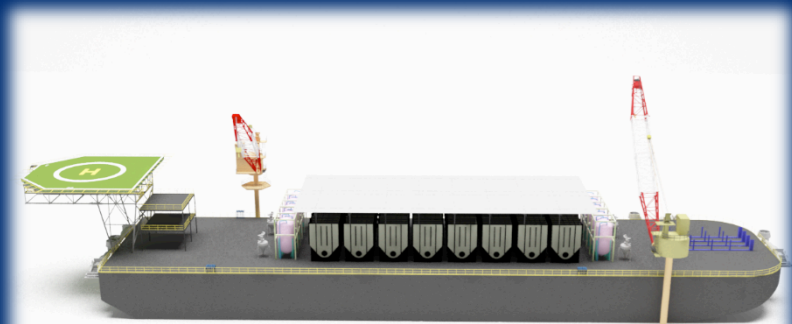
Same design philosophy



QUAYSIDE version. No heli-deck. No LQ. Can utilize existing power supply or run generators. Designed to accept 8 point or even DP3 retro-fit.

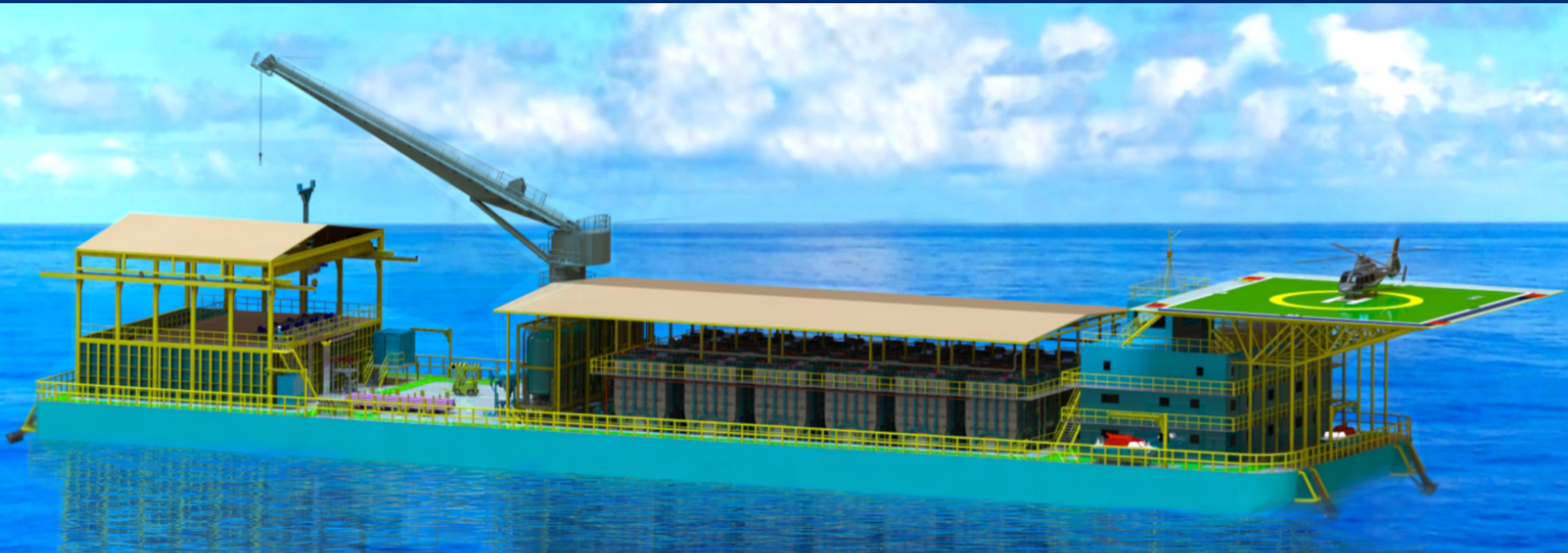


8 POINT MOORED version. Designed for sheltered water or water < 1500m in depth.



DYNAMIC POSITION level 2/3. Designed to hold-station next to drilling operation. Self-propelled.

Client Specific Design (example)



Drilling Fluid Work Flow

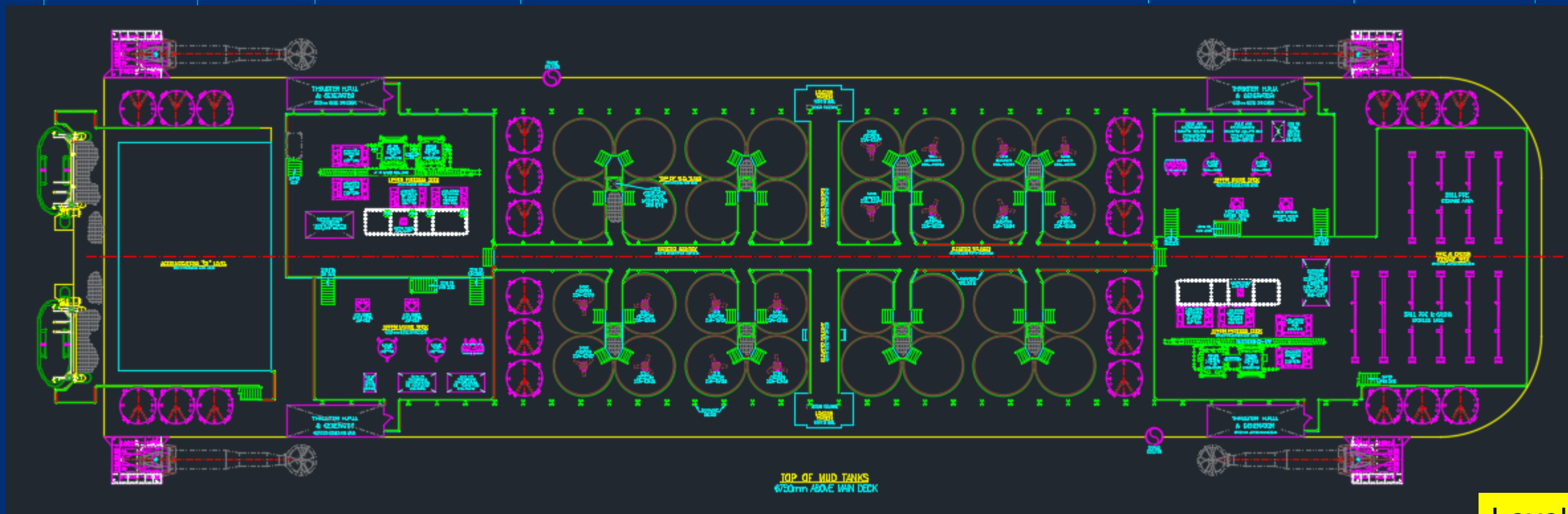
36 LQ w/ heli-hanger on top

Mud mix w/ silo & DWM

3200 m³ fluid storage.
Can be segregated into multiple fluids

Mud mix w/ silo & DWM

Pipe rack with contained wash down



Closing the Environmental Loop

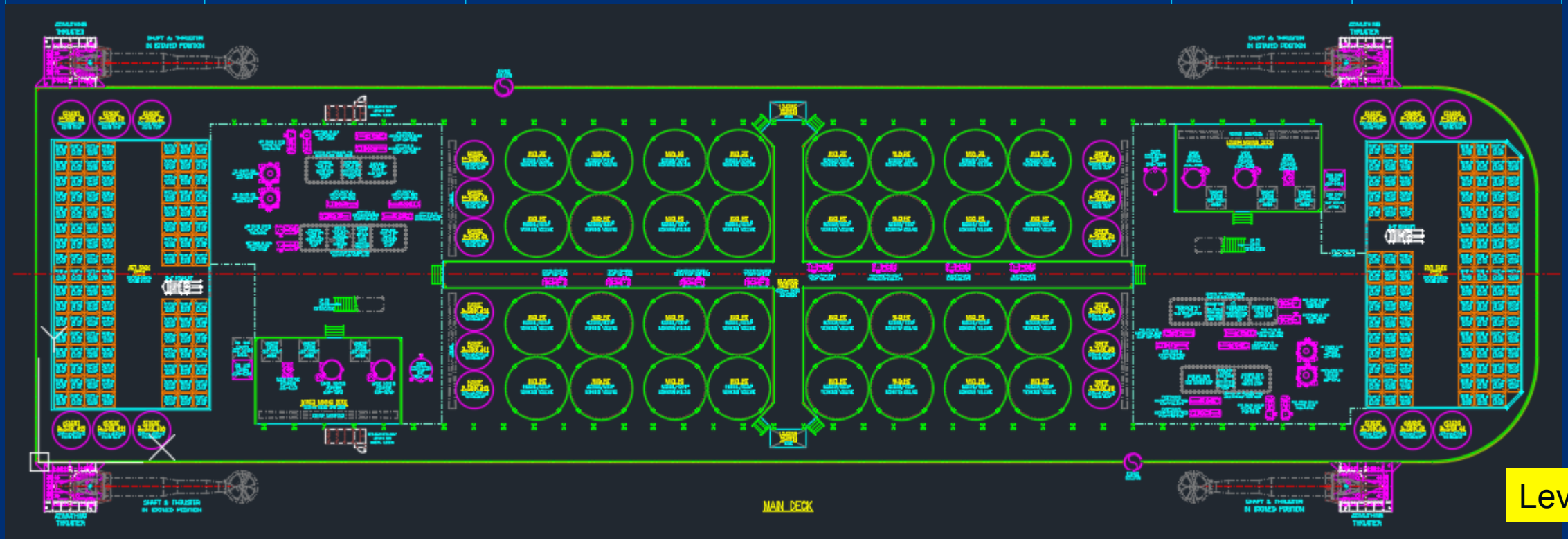
Skips and/ or chemical storage

Centrifuges in series + First responder + SLOPS process + Advanced DWM

Mud tank system pre-plumbed for First Responder. Entire area banded and drained into SLOPS process

LGS reduction process (NT)

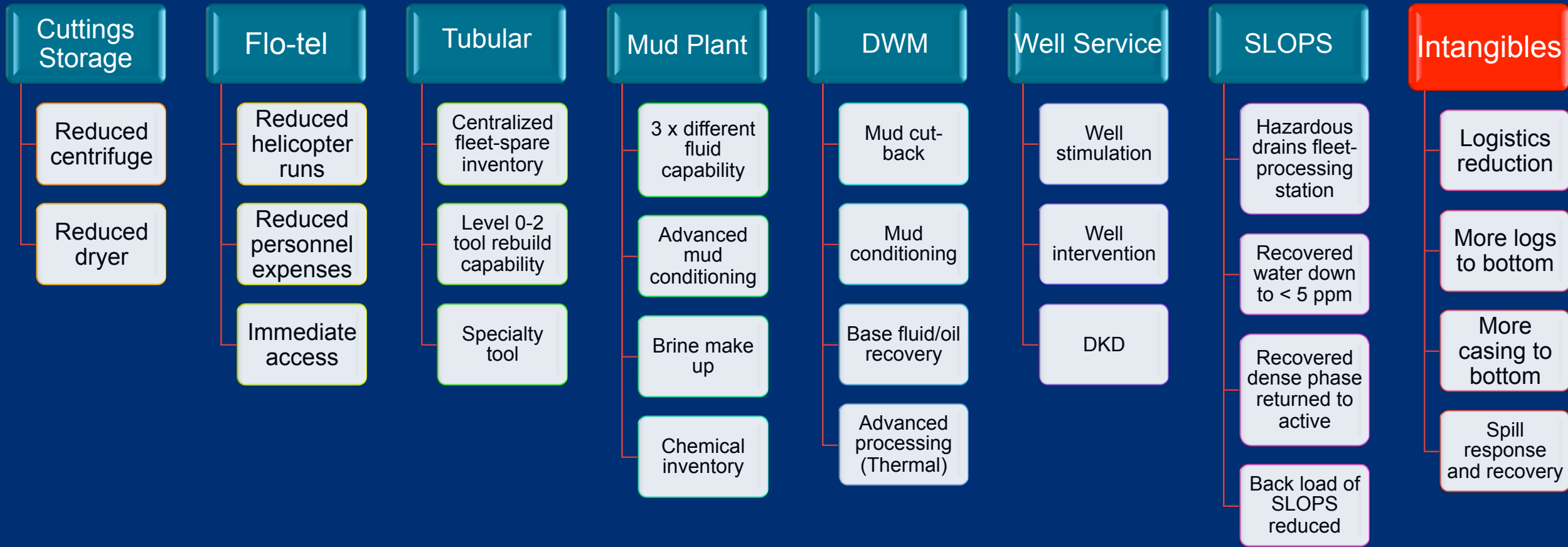
Skips and/ or chemical storage



Level 1

Client value added

With a broad sweep of our engineering brush...



SAFETY & MITIGATION TO RISK

With our LMPV and through our engineering considerations + by simply being onsite, the offshore personnel associated have greatly increased their survival risk and exposure:

- CATASTROPHIC EVENT EVACUATION VESSEL
- SAFER WORK FLOW VIA ENGINEERED DESIGNS
- MIX ON THE FLY AND KILL MUD
- NEXT TUBULAR STRING AVAILABLE
- LESS EXPOSURE TO MATERIAL AND FLUIDS
- HELICOPTER GARAGE (REPAIRS)
- ALTERNATIVE WORK STATIONS
- FIRST RESPONDER

And then some...

Beyond any LMP, we offer much more...

- **DRILLING WASTE MANAGEMENT**

- Pre-plumbed and pre-wired for many equipment choices
- Base design configured to support a series of centrifuges with a qualifying shaker + a Hammermill system
- LGS is the single targeted issue with mud brought to our vessel
 - Unique and new process onboard to decrease LGS % with any fluid
- Dedicated work deck with crane access
- Extended mud lab for advanced testing

- **SLOPS & HAZARDOUS DRAINS**

- SLOPS buffer/receiving tank
- Process capable of < 5 ppm hydrocarbon for release
- Process highest flow rate in industry
- Process capable of handling Hazardous Drains + SLOPS + any Interface
- Negation of any back loads to the beach are the goal
- Reduction in client risk & exposure is in the engineering
- Pipe rack on main deck has a wash rack for tools that goes to SLOPS tank

ENVIRONMENT

- Existing designs capture the most reasonable of new technologies
- Vessel is designed to accommodate changes for the life of the vessel
- Process intensification
- SLOPS capacity capable of self-sufficiency for not only our LMPV but also for the assigned rig(s)
- LMPV-DWM able to exceed local release legislation (< 6.9% OOC or < 5 ppm, for example)
- Wash down & handling of CTB's, dowhole tools, OSV fluid tanks all onboard our LMPV with no need to go back to the beach

**REDUCTION OF ENVIRONMENTAL IMPACT OF
BOTH THE RIG AND OUR LMPV +
STOP ALL BACK LOADS TO THE BEACH**

Summary of support...

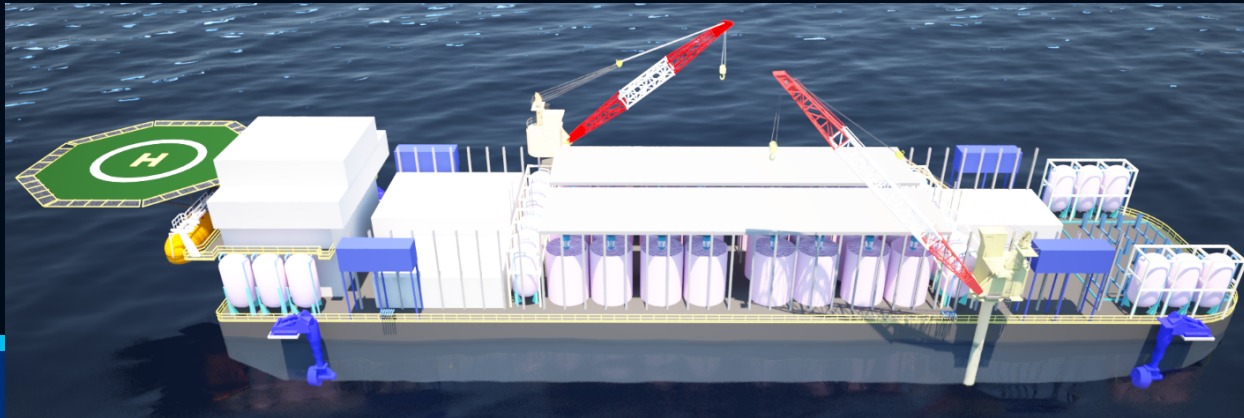
VESSEL ATTRIBUTES

ITEM	SAFETY	LOGISTICS	ASSET INTEGRITY (Reservoir)	ROP	ENVIRONMENT	VDL	NPT REDUCTION
1	Stable platform away from the rig for E-Vac/muster point	Reduction of OSV runs from port x 25%	Better fluids in well bore more of the time	better & more consistent drlg fluid properties	First responder. Spill recovery & segregation	Next tubular string onboard	OSV harbour access / dock issues
2	POB overflow	Negation of back load of SLOPS to the beach	Lower ECD	Increased ROP	SLOPS taken below regional release point	Spare, down hole tool storage	OSV travel time to and from
3	Zero physical exposure to cuttings and SLOPS streams due to handling and processing systems	Downhole tool clean and rebuild level 0-2, onsite	More logs to bottom	More bit on bottom time due to reduction in NPT associated with port/ OSV trip times	OOC% taken to below regional release point	Large main deck storage space onboard	POOH (trip time) associated with drlg fluid
4	Reduction with tank entry due to less tank cleaning	Helicopter repair garage/workshop	More casing strings to casing depth	> 5% reduction is targeted LGS due to specialized processes onboard	Reduction in risk & exposure to spills due to handling/vessel transfer/port storage/port transportation	DWM equipment onboard Samsara	Good and in spec mud properties delivered to the rig quickly
5	Well control fluid make up and availability	Reduction with quick-turnaround specialist to stay onboard vs. return to beach	> 5% reduction in targeted LGS due to specialized processes onboard	Reduced LGS + better mud properties increase pump fluid end component wear time + reduces down hole tool erosion	Reduction in 25% of emissions associated with OSV trips	Dry silo & sack chemical storage	Large reduction in any pit cleaning and time/labor associated

The name of our vessel is the, Saṃsāra

Safety, Advanced Mud Solutions And Recovery Answers.

“Cyclicity of all life, matter & existence”.



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