

NOVA-1 Rig Package Specifications



Webster Energy Services Ltd.

Phone +64 4 237 5264

E-mail info@webster.energy

1.0 DOCUMENT CONTROL

Revision Status			
Revision	Date	Description	Review Date
Rev A	14/05/2015	Final Draft for Approval	14/05/2015
Rev 1.2	15/05/2015	Final/Approved	
Rev 1.9	10/10/2017	Correct Format error & update Volant CRT information	16/10/2017
Rev 2.0	29/05/2018	Update equipment inventory	29/11/2018
Rev 2.1	14/11/2018	Update equipment inventory & specifications	14/11/2018
Rev 2.3	24/06/2019	Check & update	24/12/2019
Rev 3.0	08/01/2020	Add Statistics and Rig move sections	08/04/2020
Rev 3.1	09/01/2020	Grammar correction & Statistic title renaming	09/04/2020
Rev 3.2	23/01/2020	Check and update	23/04/2020
Rev 3.3	28/01/2020	Client copy	28/04/2020
Rev 3.4	04/02/2020	International copy	04/05/2020
Rev 3.5	05/02/2020	Australian issue copy	05/06/2020
Rev 3.6	23/06/2020	Mercury issue.	01/10/2020
Rev 3.7	24/06/2020	Add TITS System and correct unit acronym mistakes.	01/10/2020
Rev 4.0	08/11/2021	Change Branding & update Volant & Elevator information	08/02/2022
Rev 4.4	03/06/2022	Update equipment information & rig statistics.	03/09/2022
Rev 4.5	18/07/2025	Update equipment information & rig statistics.	18/01/2026
Rev 4.6	04/03/2026	Update equipment information & rig statistics.	04/09/2026
Document Owner			
Position		General Manager	Signature
Name		Luke Goodwin	
Distribution List			
Recipient			Email/Hardcopy
Bain Webster			Email
Jeff Ashby			Email
Luke Goodwin			Email
Rhys Thomas			Email
Kyle Webster			Email
Mike Dixon			Email
Hayden Webster			Email
Tony Kingan			Email
Jim Beard			Email
Nova-1 Rig Manager			Email

2.0 TABLE OF CONTENTS

1.0 DOCUMENT CONTROL	2
2.0 TABLE OF CONTENTS	3
3.0 INTRODUCTION	4
4.0 CERTIFICATION	4
5.0 NOVA-1 RIG PACKAGE – CURRENT USEAGE & TIME STATISTICS	4
5.1 MAINTENANCE TIME POINTS	4
5.2 NOVA-1 CURRENT DEPTH & TIME RECORDS	4
6.0 MANUFACTURING STANDARDS	5
6.1 THE MANUFACTURE OF THE RIG IS ALIGNED TO THE FOLLOWING EUROPEAN STANDARDS:	5
6.2 THE MANUFACTURE OF THE RIG CONFORMS TO THE FOLLOWING REGULATIONS AND STANDARDS:	5
6.3 STRUCTURAL DESIGN STANDARDS:	5
6.4 FUEL TANK SPECIFICATIONS:	5
6.5 DELIVERY & COMMISSIONING CERTIFICATION:	6
7.0 TRIP TIMES	6
8.0 RIG MOBILISATION/DE-MOBILISATION TIMES	6
9.0 DOCUMENT OBJECTIVES AND PURPOSES	7
10.0 CONTACTS	7
11.0 EQUIPMENT	8
11.1 AMERICAN AUGERS/GEFCO VR500 DRILLING RIG ORIGINS DATA	8
11.2 VR500 DRILLING RIG SPECIFICATIONS	8
11.3 VR500 FLUID CAPACITY & SYSTEMS	9
11.4 VR500 PUMP SYSTEMS & CAPACITIES	9
11.5 VR500 BOP & ACCUMULATOR SYSTEMS	10
11.6 VR500 CHOKE SYSTEMS	11
11.7 DEGASSER SYSTEMS	12
11.8 PIPE HANDLING SYSTEMS	12
11.9 TUBULARS	13
11.10 HANDLING EQUIPMENT	13
11.11 ELEVATORS	13
11.12 CASING RUNNING SYSTEMS	14
11.13 SENSOR SUITE	15
11.14 T.I.T.S – TORQUE INFORMATION TREND SYSTEM	15
12.0 PERSONNEL & ACCOMMODATION	16
12.1 NOVA-1 PERSONNEL	16
12.2 ACCOMMODATION	16
13.0 RIG LOGISTICS	17
14.0 SITE REQUIREMENTS	18
14.1 SITE DMENSIONS	18
14.2 GROUND CONDITIONS REQUIREMENTS	18
14.3 PAST SITE LAYOUT EXAMPLES	19
14.3.1 KOHATUKAI	19
14.3.2 MANUTAH B	19

3.0 INTRODUCTION

Land based drilling is about maximising drilling efficiency and minimising rig down time.

Webster Energy's NOVA-1 drilling rig moves fast, to maximise the operator's uptime without sacrificing drilling power and capability.

Webster Energy values efficient, accurate & reliable engineering & design in its plant and equipment, and innovation, experience and integrity in its personnel.

These values, combined with the company's broad spectrum of knowledge, innovative engineering experience, an extensive manufacturing history & our dedication to succeed make the NOVA-1 a fast, safe and reliable drilling package, committed to delivering safe, efficient and cost effective drilling operations to our clients.

4.0 CERTIFICATION

The Webster Energy NOVA-1 Rig is a fully certified, API Monogrammed Drilling Rig.

The NOVA-1 Rig Spread is complimented with a portfolio of certification documentation to cover all aspects of the plant and equipment, this certification is logged on the WES data base and continuously updated as per regulatory requirements and changes within relevant standards and legislation. A schedule of inspections has been developed by WES to ensure that items are recertified as and when required, all outdated certificates are archived within the WES system.

5.0 NOVA-1 RIG PACKAGE – CURRENT USAGE & TIME STATISTICS

As you can see from the below statistics, the WES Nova-1 has an enviable up time ratio compared to many other drilling packages. This is in part to the thorough maintenance regime maintained by WES.

STATISTICS CURRENT AT 4th MARCH 2026								
TOTAL WELLS WORKED:	TOTAL RIG OPERATING DAYS:	TOTAL METERAGE DRILLED:	TOTAL CASING METRES RUN:	TIME BREAKDOWN STATISTICS: (Percentage)				
				OPERATING TIME:	RIG MOVE TIME:	STANDBY TIME:	NON PRODUCTIVE TIME:	TOTAL UP TIME:
46	1054 days	76,502m	90,787m	71.70%	23.60%	3.21%	1.49%	98.51%

5.1 MAINTENANCE TIME POINTS

- At 646 Operating Days, an API RP 4G Cat III Inspection completed on the Mast and Sub Structure. The Rig package has since operated for a further 408 Operating Days. The next API RP 4G Cat III Inspection for the Mast and Sub Structure is due in **322** Operating Days.
- 2596** Operating days until the Nova-1 Rig is due for its first API RP 4G Cat IV Mast and Sub Structure Inspection.
- The Integral Top Drive System (TDS) had its first API RP 8B Cat IV inspection on 10th December 2019. No flaws, damage or undue wear was found. The Integral TDS has been reinstated and is ready for service.
- The 5K Non-Shearing BOP system has completed its API STD53 Five Yearly inspection as per API STD 53 Section 5.4.2 in July 2017 and it's second re-certification in 2025. The 5K Shear Ram BOP stack is currently undergoing its re-certification at the time of writing (04/03/2026). In between wells it is cold stacked in our Stratford warehouse, stacked and maintained as per the OEM's long term storage specifications.
- The 10K BOP system is currently out of certification and cold stacked awaiting a contract prior to its re-certification.

5.2 NOVA-1 CURRENT DEPTH & TIME RECORDS

- 4300m well drilled to Target Depth in 38 days including Mobilisation (7 days).

6.0 MANUFACTURING STANDARDS

The NOVA-1 Rig Spread has been manufactured by various OEM's from countries including USA, China, Canada and New Zealand. The NOVA-1 rig was delivered prior to June 2014 and as such, was not at that time, required to meet some regulatory requirements brought about by the recent changes. NOVA-1 has however been updated and modified to ensure compliance with the changing environment in which it operates and meets the current regulatory requirements. International standards have also changed, and WES has ensured that NOVA-1 is current and up to date with these changes.

6.1 THE MANUFACTURE OF THE RIG IS ALIGNED TO THE FOLLOWING EUROPEAN STANDARDS:

Conformité Européenne. (CE)

International Electrotechnical Commission. (IEC)

Appareils destinés à être utilisés en Atmosphères Explosives. (ATEX)

6.2 THE MANUFACTURE OF THE RIG CONFORMS TO THE FOLLOWING REGULATIONS AND STANDARDS:

API 4F Specification for Drilling and Well Servicing Structures 3rd Edition, January 2008.

API STD 53 3rd Edition November 2013

ASTM International, formerly known as the American Society for Testing and Materials. (ASTM)

Health and Safety in Employment Act 1992. (Guidelines for the guarding principles and general safety for machinery)

Hazardous Substances and New Organisms Act 1996.

Approved Code of Practice for Pressure Equipment. (Excluding Boilers)

Approved Code of Practice for Cranes. (3rd Edition)

Approved Code of Practice for Load-Lifting Rigging.

AS/NZS 1657-1992: Fixed Platform, Walkways, Stairways and Ladders.

AS/NZS 1891-2009: Industrial Fall-arrest and Devices.

AS/NZS 2293: Emergency Lighting Systems.

AS/NZS 3000-2007: Electrical Installations.

AS 4775-2007: Emergency Eyewash and Shower Equipment.

NZS 6802-2008: Acoustics – Environmental Noise – acc. Noise Figures.

AS/NZS 16801.1-2006: Interior and Workplace Lighting – Part 1: General Principles and Recommendations.

AS/NZS 16801.2-1997: Interior Lighting – Part 2.4: Industrial Tasks and Process.

AS/NZS 16801.5-2012: Interior and Workplace Lighting – Part 5: Outdoor Workplace Lighting.

AS/NZS 60079.10.2-2011: Hazard Classifications of Locations for Electrical Installations.

6.3 STRUCTURAL DESIGN STANDARDS:

API 4F Specification for Drilling and Well Servicing Structures 3rd Edition, January 2008.

6.4 FUEL TANK SPECIFICATIONS:

AS 1692:2006 Steel Tanks for Flammable and Combustible Liquids.

AS 1940:2004 The Storage and Handling of Flammable and Combustible Liquids.

ERMA Code of Practice for Above Ground Stationary Tanks with Integral Secondary Containment.

HSNO Regulations.

6.5 DELIVERY & COMMISSIONING CERTIFICATION:

The delivery and commissioning of the rig was managed to fulfil the requirements of legislation, international standards and local regulatory bodies at the time of importation. The following components have individual certifications.

Mast and Substructure.

Drilling Equipment.

Power Equipment. (Power Generation)

Electrical System.

Mud System.

Fuel System.

Auxiliary Equipment.

Rig Floor Equipment.

Instrumentation System.

Hydraulic Pipe Handling System.

7.0 TRIP TIMES

There seems to be an industry wide misconception that Super Single style drilling packages have extremely slow trip times, due to lack of setback, and the inability to pull pipe in triple stands.

While this is true of some Super Single designs, it is far from the case with the VR500 model Super Single operated by Webster Energy.

With 45ft (13.71m) Range III drill pipe and dependent on hole conditions and client instructions, the NOVA-1 is comfortably capable of tripping rates of 35 joints an hour or 1574ft/hr (480m/hr).

8.0 RIG MOBILISATION/DE-MOBILISATION TIMES

After listening closely to our client's feedback, regarding our local markets rig deficiencies. Webster Energy has identified a lack of Mobilisation process design as a key unexploited rig efficiency area.

Keeping this in the forefront of our design brief during the design and commissioning of the Nova-1 Drilling Package. Webster Energy placed a continual emphasis on making the Nova-1 fast, efficient, safe and cost competitive to move.

This we believe, has saved our clients a lot of money, and led to us being the market leader in New Zealand, when it comes to speed vs. rig capability.

The below Rig Mobilisation times are indicative only, and as based on our considerable past experience.

As always, road conditions, local regulations, client HSE requirements, geography, weather, available resources, and local cultural conditions will have an effect on Mobilisation/De-Mobilisation times.

RIG MOBILISATION/DE-MOBILISATION TIMES			
DESCRIPTION:	MOB TIME:	DE-MOB TIME:	COMMENTS:
On-Site move (within Lease)	3 - 4 days	2 - 3 days	From Rig release to Spud.
< 50km	5 - 6 days	2 - 3 days	
50km - <300km	6 - 7 days	4 - 5 days	
300km - 650km	9 - 10 days	7 days	
> 650km	No data	No data	To be discussed.

* All above times are indicative, based on past rig mobilisations/De-Mobilisations.

For an accurate assessment of the likely Mobilisation/De-Mobilisation time for your project.

WES highly recommends that a Senior WES representative(s) scout the proposed route, site and site access, and research the available local resources and regulatory environment to assist the rig Mobilisation/De-Mobilisation planning process.

9.0 DOCUMENT OBJECTIVES AND PURPOSES

The purpose of this document is to formalise Webster Energy's equipment and systems for client evaluation of the NOVA-1 drilling package.

This document outlines the general equipment, personnel, and systems available without excessive detail. This document is written with the assumption that users are familiar with the concepts and basic equipment & methodology of well drilling operations. If any further equipment information is required, please do not hesitate to contact one of the below representatives.



10.0 CONTACTS

For any further information or specifications, please contact the below personnel:

Bain Webster
Managing Director

Mob: +64 21 705 740
Office: +64 4 237 5264
Email: bain.webster@websterdrilling.com

Luke Goodwin
General Manager

Mob: +64 21 425 333
Email: luke@webster.energy

Mike Dixon
Nova-1 Operations Manager

Mob: +64 27 631 0485
Email: mike@webster.energy

Jim Beard
Operations Manager

Mob: +64 27 236 5562
Email: jim@webster.energy

11.0 EQUIPMENT

11.1 AMERICAN AUGERS/GEFCO VR500 DRILLING RIG ORIGINS DATA

VR500 ORIGINS DATA	
Company:	Webster Energy Services Ltd.
Unit name:	NOVA-1
Registered Number:	VR5000060611
Type:	Super single, with pipe handler
Year of construction:	2011
Availability:	August 2022

11.2 VR500 DRILLING RIG SPECIFICATIONS

VR500 SPECIFICATIONS	
Rated Depth:	4500m with 4" 14.7lbs/ft DP
Mast capacity:	500,000lbs
Hookload capacity:	500,000lbs
Pulldown capacity:	125,000lbs
Top drive torque capacity:	30,000ft/lbs
Max. Rotary speed:	120 rpm
Top drive system:	Integral, hydraulic Rack & Pinion
Engines:	2 x Cat C-18Tier III Diesel
Clear height under elevators:	16.0m
Output:	2 x 700hp (522kW)
Fuel Capacity:	50,000lt + (2 x 2460lt HPU day tanks)
Generators:	3 x 1250kVA FG Wilson Perkins P1250P3
Total combined power generation:	3750kVA @ 400VAC 50Hz



11.3 VR500 FLUID CAPACITY & SYSTEMS

The VR500 mud tank system is fitted with agitators in each of the non – settling tanks.
 The NOVA-1 is a proven performer with Synthetic Based Drilling fluids.

MUD TANK QUANTITIES & CAPACITIES	
Tank units quantity:	3
Total Volume:	952.2 bbls
Total useable surface circulating volume	621.2 bbls
Total Reserve Storage Volume	331 bbls
Sand Trap:	20 bbls
De-Sander Tank:	70.1 bbls
De-Silter Tank:	70.1 bbls
Settling Tank:	92 bbls
Active 1:	139.5 bbls
Active 2:	139.5 bbls
Premix:	52 bbls
Kill:	38 bbls
Reserve 1:	139.5 bbls
Reserve 2:	139.5 bbls
Premix:	52 bbls
Trip Tank (single compartment):	26.7 bbls



PUMPS & MIXING SYSTEMS	
Hoppers:	3
Mixing Pumps:	3
Agitators:	7
Bulk Hopper:	Yes, fits 1 ton bulk bags with integral blade

11.4 VR500 PUMP SYSTEMS & CAPACITIES

Each mud pump is driven by an 800hp AC electric motor controlled by a Variable Speed Drive with a soft start up feature. Being electrically driven, means low sound levels during pump operations.

The mud pumps are controlled in the Drillers cabin with a digital touchscreen enabling accurate control down to 1 SPM, and featuring a fill strokes function, which allows a given number of strokes to be pumped then the pump is switched off.

All main mud pumps are charged by centrifugal pumps with a max flow rate of 1056 GPM per pump.
 Each pump is fitted with a nitrogen pre-charged discharge pulsation & air charged suction dampeners, and an O'Drill 3" Type resettable type pressure relief (RRV) valve.

MUD PUMP SPECIFICATIONS

Type:	BOMCO			
Model:	F-800			
Quantity:	3			
Stroke:	9"			
SPM:	120 continuous (150 max)			
Pressure:	5,000psi max WP (with 4" Liners)			
SPM	Displacement GPM (@ 100% efficiency)			
	Liner Size "			
	6-1/4"	6"	5-1/2"	5"
psi	2295	2490	2950	3420
150	546	497	418	360
120	437	398	334	288
110	400	364	307	264



11.5 VR500 BOP & ACCUMULATOR SYSTEMS

All BOP systems are centrally powered & controlled by a 3,000psi WP Accumulator unit, also with a remote-controlled unit in the drill cabin.

3,000psi WP ACCUMULATOR SPECIFICATIONS

Qty.	Volume	Air Pump	Electric pump	Number of Stations	Total fluid (Gals)	Useable Fluid (Gals)
16	11	Yes	Yes	5	116	87

BOP SYSTEMS

Information				Connections	
Psi WP	Qty.	Component type	Bore "	Top	Bottom
5k	2	Annular preventer	13-5/8"	Studded BX-160	Flanged BX-160
5K	1	Double Shear Ram preventer	13-5/8"	Studded BX-160	Studded BX-160
5k	1	Double Ram preventer	13-5/8"	Studded BX-160	Studded BX-160
5k	1	Mud Cross Spool 2-1/16"x 3-1/8"	13-5/8"	Flanged BX-160	Flanged BX-160
5k	1	Annular preventer	9"	Studded RX-50	Flanged BX-157
10k	1	Triple Ram preventer	9"	Studded RX-50	Flanged BX-157
10k	1	9" x 11" Mud Cross Spool 2-1/16"x 3-1/16"	9"	Flanged BX-157	Flanged BX158



Hydraulic BOP Launcher & retriever removes personnel from the crush zone and allows for rapid placement & retrieval of the BOP stack.

BOP RAM SIZES		
5k Double Ram	5k Double Shear Ram	10k Triple Ram
-	2-3/8"	2-3/8"
2-7/8"	2-7/8" – 5" VBR's	2-7/8"
3-1/2"		n/a
4"		4" (x 2sets)
4-1/2"		4-1/2"
5"		5"
5-1/2"		5-1/2"
7"		7"
7-5/8"		-
9-5/8"		-
10-3/4"		-
Blinds	Blind Shears	Blinds

11.6 VR500 CHOKE SYSTEMS

The VR500 comes equipped with a 10K WP Choke Manifold system. The remote choke control system can operate both hydraulics chokes simultaneously and is mounted in the Drillers cabin.

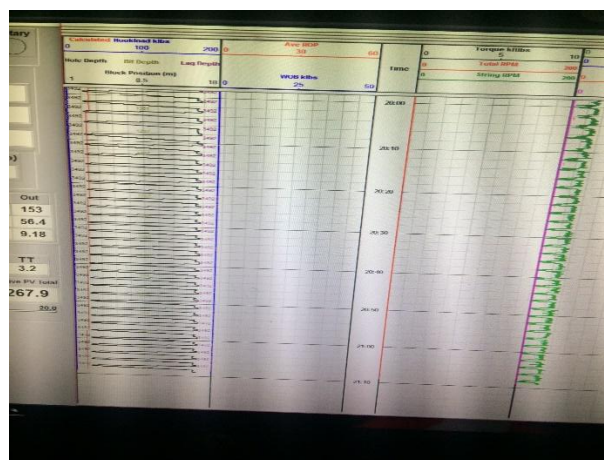
CHOKE MANIFOLD SYSTEMS					
WP	REMOTE	MANUAL CHOKE	HYDRAULIC CHOKE	SIZE"	
				SIDE	CENTRE
10k	Yes	1	2	2-1/16"	3-1/16"

All BOP and Choke manifold systems come complete with a range of armoured and non-armoured choke & kill line hosing and valve & BOP controls lines. IBOP & FOSV are also included to MT39 connections.

11.7 DEGASSER SYSTEMS

POORBOY DEGASSER	
Model:	ZYQ1000
Inlet Diameter:	5"
Outlet Diameter:	10"
Treating Capacity:	1056-1672GPM

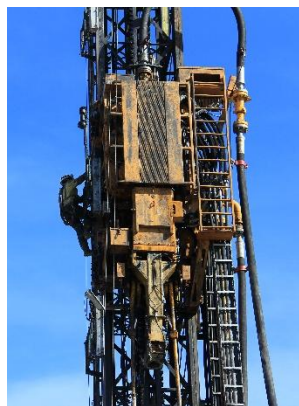
VACUUM DEGASSER	
Model:	GNCQ360
Capacity:	1500GPM
Vacuum:	0.040-0.065Mpa
Efficiency:	≥95%



11.8 PIPE HANDLING SYSTEMS

The VR500 has an integral proprietary pipe handling and make up wrench system detailed below:

PIPE HANDLER	
Description:	90° Pivoting Boom Assembly
Gripper Jaws:	2 x 180° rotating assemblies
Max Drill Pipe Length:	Range III
Min Drill Pipe Diameter:	2-7/8"
Max Drill Pipe Diameter:	20"
Max Collar size:	8"
MAX LIFT RATING:	Range II [6,000 lb] Range III [5000 lb]



IRON ROUGHNECK/MAKE-UP WRENCH DATA

Wrench type:	Open-side w/ 7" (178mm)
	Bore clamp cylinder
Max Breakout Torque:	80,000ft/lbs (108,500Nm)
Max Makeup Torque:	65,000ft/lbs (88,130Nm)
Clamp Grip Range:	3-1/2"-8-1/2" (88.9mm-215.9mm)
Variable clamp pressure	Yes

PIPE SPINNER DATA

Wrench type:	AA FHO182BV
	Rollers
Max Breakout Torque:	n/a
Max Makeup Torque:	n/a
Clamp Grip Range:	3-1/2" - 8-1/2"

11.9 TUBULARS

TUBULAR DATA

Description	Drill Pipe	HWDP
Qty.	260	29
Total Metres:	3562m	271m
OD	4"Pipe (5" Tool Joint)	4"Pipe (5" Tool Joint)
ID	3-11/32" (2-11/16" Tool Joint)	2-11/16" (integral)
Grade:	S135	S135
lb/ft:	14.72lbs/ft	27.13lbs/ft
Connection:	MT39 High Torque, double shoulder	MT39 High Torque, double shoulder
Range:	III	II

Extensive range of subs to connect to MT39 connections.

11.10 HANDLING EQUIPMENT

NOVA-1 keeps a comprehensive range of slips, safety clamps, rig floor tongs and elevators. For a full listing of the available Handling Equipment and specifications please contact your WES representative.

11.11 ELEVATORS

NOVA-1 runs Blohm & Voss 250 Ton hydraulically actuated, Centre Latch Elevators.

ELEVATOR SPECIFICATIONS

Make:	Blohm & Voss (F.E.T)
Model:	VES-CL-250 (P/N: 612 900-Y-H-TF)
Hoist:	250 Ton
Available Bushing Inserts:	
2-3/8" Upset	(P/N: 612 900 -130)
2-7/8" Upset	(P/N: 612 900 -132)
2-7/8" Parallel	(P/N: 612 900 -131)
4" Casing Parallel	(P/N: 612 900 -220)
4" Drill Pipe 18° Taper	(P/N: 612 900 -106)
4-1/2" Casing Parallel	(P/N: 612 900 -221)
5" Casing Parallel	(P/N: 612 900 -223)
5" Drill Pipe 18° Taper	(P/N: 612 900 -109)

11.12 CASING RUNNING SYSTEMS

Since NOVA-1 began operation in 2012, our Volant CRT has ran over 80,000m of casing without incident. NOVA-1 employs the Volant Casing Running Tool system in the following size ranges:

VOLANT CRT SPECIFICATIONS	
Make:	Volant
Model:	CRTi-3-7.00
Hoist:	250 Ton
Torque:	40,000ft/lb
Circ. Pressure:	2,000psi

VOLANT CRT DIE DATA	
Size:	Die weight range
7"	17.0 – 26.0 lb/ft & 26.0 – 35.0lb/ft & 35.0 lb/ft
7-5/8"	24.0 - 33.7 lb/ft
9-5/8"	40.0 - 43.5lb/ft & 47.0 - 53.5 lb/ft
10-3/4"	32.75 - 40.5 lb/ft
13-3/8"	68.0 - 72.0 lb/ft



11.13 SENSOR SUITE

All below drilling & fluid parameters are recorded digitally and can be displayed and trended over time for analysis.

RECORDED SYSTEM PARAMETERS	
Weight Indicator	Remote Choke console
Stand pipe pressure	Top drive speed
Well Head pressure	Top drive position
RPM	Weight on Bit
Rotary Torque	ROP
Make wrench Torque	Mud Flowrate
PVT for 11 tanks	Gas levels (3 sensors)
Trip tank indicator	Gain/Loss



11.14 T.I.T.S – TORQUE INFORMATION TREND SYSTEM

Webster Energy has developed its own casing thread Torque/Turn make up monitoring software system for use with premium connections. The system has been designed from the ground up, with input from operators, service companies and our crew.

The T.I.T.S software monitors torque and rotation applied and displays this information as an easy-to-read graph chart on a monitor at the Drillers console.

Acceptance parameters for the tubulars are pre-set prior to the run. At the culmination of each connection, they are either accepted, rejected or rejection over-ridden with a confirmation acceptance function.

This level of transparency and accountability provides our clients with confidence that each connection of their premium connection is made up to the OEM's recommended specification.

The resulting tubular run can be exported as a .pdf file for our clients casing installation records.



12.0 PERSONNEL & ACCOMMODATION

12.1 NOVA-1 PERSONNEL

The below table shows the total crew on a given tour, and the totals run in the current four crew system. Minimum total crew required to run a shift is 9 excluding camp staff.

CREW DATA				
4 crew total	3 Crew total	2 Crew total	On Tour minimum.	Position:
2	2	1	1	Rig Manager
2	2	1		Night Pusher
2	2	1	1	HSE Officer
4	3	2	1	Driller
4	3	2	1	Assistant Driller
4	3	2	1	Tankman
4	3	2	1	Floorman
4 *(8)	3 *(6)	2 *(4)	1 *(2)	Lease Hand
2	2	1	1	Electrician
2	2	1	1	Mechanic

*Leasehand numbers can be negotiated at time of contract.

12.2 ACCOMMODATION

The NOVA-1 operates a mini camp facility for safety critical crew. This arrangement comes with six camp buildings, these consist of the following:

- Rig Manager & Company Representative Office & accommodation.
- HSE Office and storeroom.
- Kitchen and ablutions block.
- 4 room sleeper unit & Maintenance office.
- Camp power, fuel & water skid.
- Drying room & Chiller/Freezer unit.

Further full crew camp facilities can be arranged upon request.





13.0 RIG LOGISTICS

The NOVA-1 drilling package was designed with fast efficient rig moves in mind. The majority of loads have been designed to fit within an ISO 40ft or 20ft footprint. Where this was not possible, container twist locks were fitted within the ISO 40ft or 20ft footprint to enable fast and secure tie down of loads.

Total rig move loads is approximately **forty five** 45ft truck loads, including the mini-camp, depending on configuration.



14.0 SITE REQUIREMENTS

14.1 SITE DIMENSIONS

The NOVA-1 drilling package has a reasonable amount of flexibility with regard to its layout configuration. The main subbase and hydraulic power sections are fixed in their position. However, the electrical generation system, fuel storage, Accumulator can be moved within reasonable cable and hosing constraints. The reserve tank component of the mud system also has a limited amount of flexibility in regard to its location.

The minimum site requirement for efficient operations for the NOVA-1 package is **120m x 150m**. Although we have operated the package on smaller sites, this leads to corresponding inefficiencies in operations, due to cramped/tight site considerations.

14.2 GROUND CONDITIONS REQUIREMENTS

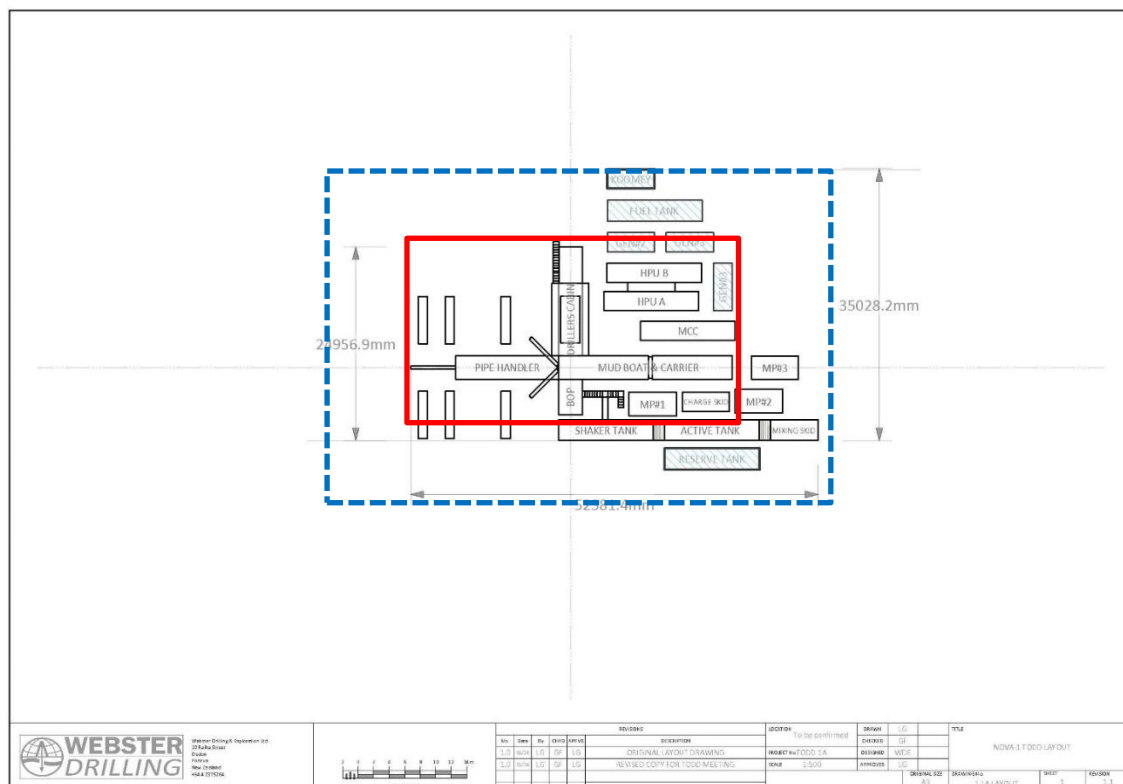
To provide adequate support for the NOVA-1 foundation and substructure, care must be taken to position the rig package where it will not exceed the safe bearing capacity of the local ground conditions.

The load bearing area for the main subbase cross area (**Red box** area in the drawing below) **must** have a minimum safe bearing capacity of **8000psf (383Kpa/3.9kg/cm2)**.

The Pipe Racking Area off either side of the Pipe Handler and encompassing the main rig footprint (**Blue box** area in the drawing below) **must** have a minimum safe bearing capacity of **6000psf (287Kpa/2.9kg/cm2)**.

WES recommends the traffic area (remainder of the lease also have a load bearing capacity of 6000psf (287Kpa/2.9kg/cm2) to ensure smooth vehicle operations with the minimum of damage to the lease.

WES. highly recommend a site visit by one of our management team to help plan the most efficient site layout for your operations.



14.3 PAST SITE LAYOUT EXAMPLES

14.3.1 KOHATUKAI 4300M GAS WELL



14.3.2 MANUTAH B 1600M OIL WELL

