NOV, Inc.
Second Quarter 2022 Earnings
Conference Call Remarks

BLAKE MCCARTHY
Vice President, Corporate Development & Investor Relations

Welcome everyone to NOV’s second quarter 2022 earnings conference call. With me today are Clay Williams, our Chairman, President, and CEO, and Jose Bayardo, our Senior Vice President and CFO.

Before we begin, I would like to remind you that some of today’s comments are forward-looking statements, within the meaning of the federal securities laws. They involve risks and uncertainty, and actual results may differ materially. No one should assume these forward-looking statements remain valid later in the quarter, or later in the year. For a more detailed discussion of the major risk factors affecting our business, please refer to our latest Forms 10-K and 10-Q filed with the Securities and Exchange Commission. Our comments also include non-GAAP measures. Reconciliations to the nearest corresponding GAAP measures are in our earnings release available on our website.

On a U.S. GAAP basis for the second quarter of 2022, NOV reported revenues of $1.73 billion and net income of $69 million. Our use of the term EBITDA throughout this morning’s call corresponds with the term “Adjusted EBITDA” as defined in our earnings release. Later in the call, we will host a question and answer session. Please limit yourself to one question and one follow-up to permit more participation. Now, let me turn the call over to Clay.

CLAY WILLIAMS
Chairman, President, and Chief Executive Officer

Thank you, Blake.

For the second quarter of 2022, NOV’s revenues grew 12% sequentially at 26% leverage, driving EBITDA up to $150MM. Despite continuing supply chain disruptions, our teams were able to improve profitability to an EBITDA margin of 8.7%. Orders once again exceeded revenue out of backlog, yielding a book-to-bill of 117%. The Company posted earnings of $0.18 per share for the second quarter.

We were pleased to see further improvement and expect more to come. Although a potential economic recession has pushed oil and gas prices off recent highs, our outlook remains constructive. The world is facing a significant energy shortfall, and the oil and gas industry needs to increase activity in order to provide greater energy security to the global economy. That urgent activity will need to come at a time when the industry’s tools – its rigs, drill pipe, pumps – have
been idled, depleted, cannibalized, and worn out, through a pandemic shutdown that produced the most withering downturn the industry has ever seen.

NOV is entering the emerging up-cycle in a unique position within the oilfield ecosystem. Oil and gas production companies, or operators, live at the top of the food chain of this ecosystem, and they are benefitting in real time from sharply higher oil and gas prices. Lack of exploration and development investment in the oilfield through the pandemic, and several years preceding it, has reduced the productive capacity of the industry. In fact, some argue spare capacity may be approaching historic lows. Despite Strategic Petroleum Reserve releases, oil, gas, and product inventories keep drifting lower and are generating commodity price signals back to operators to step up activity and produce more. And they are – to the extent they can, given their now higher cost of capital; their shareholders’ demands for less drill bit capex and greater return of capital; and emerging constraints among the oilfield service companies that do the actual work, including constrained accessing necessary spares and consumables, finding skilled workers and engineers, and moving equipment globally through a broken supply chain.

NOV sells to both groups, and our results reflect the fact that, broadly speaking, these ecosystem participants are currently at different stages of recovery. NOV’s revenues directly to operators were 35% of its mix in the second quarter, and its revenues to oilfield service companies was about 55% of its mix. The balance of 10% were sales to other industrial customers.

While the finances of operators have been largely healed by higher oil and gas prices, our oilfield service customers still have a ways to go. Many still labor under low- or no-margin contracts signed under the duress of the pandemic lockdown. They continue to execute against rapidly rising costs, due to inflation in materials and labor, battling through acute shortages of certain critical items. Many still strain under high debt loads and lack access to external capital.

It takes a while for prosperity to trickle down the oilfield food chain, but here’s the good news: the trickle down is underway. Month-by-moth, older low-margin contracts expire and are replaced with better-priced contracts. For example, leading-edge day rates for super-spec tier-1 land rigs are squarely north of $30K per day now. Fracking prices per stage are improving, and pressure pumper financial statements are starting to reflect it. One major deep-water driller announced a drillship day rate well north of $400K/day this quarter. The overhang of equipment and capacity is diminishing, admittedly at different rates across different categories, but, directionally, these are all going the right way.

Utilization is rising and facilitating pricing leverage for our oilfield service customers. Idled equipment that has been cannibalized or worn out requires incremental capital to reactivate, and, with desperation evaporating quickly from oilfield service enterprises, they are now demanding contractually guaranteed payback in these incremental investments in order to bring additional capacity to the marketplace. These are all the first steps one would expect towards healing the balance
sheets and business models of oilfield service companies, and the body of evidence of healing continues to grow. That’s why we are so constructive in our outlook.

It all points to more future demand for NOV. As you know, NOV is in the business of making the two levels of customers above us in the food chain successful, ultimately to reduce the cost per barrel that both work in concert to produce. NOV outfits our customers with the equipment, technology, and tools used in every part of well construction, and our unique position yields competitive advantage in an up-cycle.

NOV has always targeted market leadership and let me explain why. Failure costs in the oilfield can be extremely high – tens of millions of dollars or more. The very expensive setbacks operators experience from time-to-time tend to make them very, very risk averse. Which means operators value experience and reliability in their oilfield service subcontractors very, very highly. Therefore, for oilfield service companies, scale and market share matter. For an oilfield service company, being the top-of-mind, low-risk, high-value choice of operators is a distinct competitive advantage. As the market leader that has been in this industry for 160 years, NOV has encountered and successfully navigated more real-world obstacles than our smaller competitors. That experience is valuable to oil and gas operators seeking to avoid the expensive headaches that occasionally arise in their operations.

Scale also drives additional competitive advantage for NOV, through efficiencies we gain as market leader including purchasing efficiencies, and global marketing reach that facilitates our new product launches. Our oilfield service customers sometimes enhance their competitive advantage by standardizing their fleet of oilfield equipment, which simplifies their management of spare parts and consumables and helps in training their workforce. These customers will naturally gravitate to a market leader like NOV, who is well capitalized and will be around to support a fleet of equipment for decades to come, and one that operates globally to be there for future geographic expansion.

Our market leadership over time has yielded the industry’s largest installed base of oilfield equipment, which provides another important competitive advantage. NOV’s position as the OEM makes us the preferred choice for spares and aftermarket support. Plus, our installed base presents additional revenue opportunities – upgrades with new digital products and apps like our NOVOS operating system and MAX edge computing.

Oilfield operations are extraordinarily tough on equipment. When you pump abrasives at super high pressures and rates and jam thousands of horsepower miles into the earth, equipment suffers. The physical consumption of equipment by day-to-day oilfield operations makes oilfield service companies very capital intensive. However, the rates commanded by most oilfield service subsectors over the past several years haven’t even come close to paying for the physical capital consumed. Instead, the oilfield services industry just consumed excess equipment, and there has been plenty of it since 2015 when utilization turned south. However, the recent improvements in pricing for many of our customers point to
that equipment overhang diminishing rapidly. As oilfield activity rises, so too should demand for the oilfield equipment we provide.

We expect our manufacturing flexibility, that is, our ability to redirect manufacturing assets as needed, to further enhance our plant utilization as we respond. This flexibility, along with our valued manufacturing vendors, enable us to flex up in times of growing demand, which all serves to reduce NOV’s fixed asset intensity. Our historical financials demonstrate low levels of capex that go with low fixed asset intensity. Low capex needs allow NOV to convert more EBITDA into free cash flow for re-investment in technology and for shareholder returns.

Our results from the past two decades demonstrate that our unique position in the oilfield ecosystem blooms later in the cycle than operators, who enjoy prosperity first, followed by service companies, who are just starting to benefit from rising activity now.

The past decade shows business models throughout the ecosystem can be highly volatile. Operators are cyclical due to their reliance on oil and gas prices, and they cut activity when prices fall. The oilfield services companies who rely on operators’ drilling programs see an outsized downcycle, and they, in turn, cut their expenditures on equipment, consumables, and aftermarket spare parts, which impacts our revenue as our customers draw down existing inventories and cannibalize idled equipment to support the few units left running. Following the extraordinary growth in demand NOV witnessed from 2004-2014, our revenues fell sharply in the downturn that followed. However, during the first part of that upcycle, NOV demonstrated that our business model can also possess extraordinary optionality and growth. Demand can come rocketing back quickly, as history, and recent events, have shown.

NOV has managed through the downturn since 2015 through 1.) aggressive, relentless cost cutting when necessary; 2.) maintaining a strong balance sheet; and 3.) diversification – diversifying geographically, diversifying between operators and oilfield services; diversifying across drilling and completions activities, diversifying across oil and gas, and diversifying across land and offshore. Little goes on in the oilfield where NOV does not in some way participate. All our oil and gas customers are tied more or less to commodity prices, but different parts of the ecosystem respond to changes in different ways, even within oil producers, who respond differently than gas producers. For example, North American independent operators usually react quickly – both up and down – to changes in oil prices, whereas national oil companies move much more deliberately. Our three segments respond differently at different times in the cycle as well.

Our year-to-date financial results in 2022 fit the ecosystem model I’ve laid out for you. For instance, our Wellbore Technologies segment mostly provides tools to oilfield service companies tied to drilling, but it also provides goods and services like drill bits, solids control, and downhole tools that are purchased directly (or at least specified) by operators. It also provides services directly to operators, like oilfield tubulars inspection and coating, and capital equipment to drilling
contractors, like drill pipe and shale shakers. Overall, its revenues are pretty closely tied to real-time global drilling activity, but its products and services purchased directly by the operator have been the first to recover, while other categories are recovering later.

On the other hand, the Completion & Production Solutions segment is tied to capital expenditures by oilfield service providers who perform well completion activities, like fracking. As I noted earlier, prosperity is just now trickling through the oilfield ecosystem to these oilfield service customers, many of whom still face challenged balance sheets and low-priced legacy contracts. Even as balance sheets strengthen, there is a natural lag as new projects are bid to operators and orders placed by winners. This business blooms later in the cycle, and our expectation is that the next few years will see continued growth and margin expansion as our customers recover. Separately, the CAPS segment also provides production modules and conductor and flexible pipe directly to operators, mostly for the offshore market. These capital purchases by offshore operators are also emerging from very low activity levels, so this portion of our business should continue to grow significantly for the next few years as the offshore sector recovers. Notably, the CAPS segment has now posted six quarters in a row of book-to-bills north of one, and its backlog has more than doubled over the past 18 months. Orders point to future growth and continued margin expansion.

Finally, our Rig Technologies segment is the global leader in engineering, manufacturing, and supporting drilling rigs of all kinds. Drilling rigs are large investments. Drilling contractors must possess strong balance sheets, access to capital, and high levels of confidence that contracts at high day rates will be available to support these investments. This all combines to make this segment very late cycle in nature. New rigs are never added until the existing fleet is contracted at high day rates, and operators seeking drilling rigs are willing to pay up to gain access to additional rigs. Demand for new rigs evaporated through the downturn, and a resumption in demand for newly constructed drilling rigs is probably a long way off, in my view. Nevertheless, NOV’s market leading status as the OEM on a very large part of the global drilling rig fleet means that we get the call for engineering and equipment to reactivate, recertify and upgrade older, frequently cannibalized rigs coming back to the market, and aftermarket support of these rigs once they go to work, which is increasingly requiring condition-based monitoring technologies that we’ve developed through the downturn. Recently announced plans to put an incremental three dozen or so jack-ups to work in the Arabian Gulf, resumption of drilling programs in West Africa, and new rig tenders for Guyana and Brazil, all point to higher activity in the offshore and are all driving renewed interest in offshore rig reactivations. And rising offshore activity should also, again, help the CAPS segment, too.

Importantly, through the downturn, Rig Technologies mix shifted largely to aftermarket support of its installed base for subsistence, which accounted for 53% of its Q2 mix. It has also benefitted from its position as the leading provider of offshore wind turbine installation vessel packages, which helped offset its lower oilfield revenues through the past few years.
So, to recap, NOV’s segments are responding at different times in the upcycle, as expected. Broadly, Wellbore Technologies is the earliest of these, while CAPS and Rig Technologies lag. With the world short of secure energy, the oilfield is reassembling itself and getting back to work, which will physically consume the equipment and spare parts NOV makes at an increasing rate. Month-by-month, it is becoming increasingly evident that the industry faces an uphill battle, having laid off skilled employees; avoided maintenance expenditures during the extreme economic duress our customers have been under; having cannibalized a lot of idled oilfield assets; and having depleted stocks of consumables that would otherwise be available to support growing operations.

I’ll acknowledge that many are of the view that we face a global recession in the near-term. Recessions can reduce demand (more accurately, they usually just flatten growth in demand) for oil and gas, thereby reducing prices and activity. However, coming out of historically low levels of oilfield activity that marked the pandemic shutdown, with nearly all excess OPEC supply back in the marketplace, with releases from the SPR expected to end soon, with the number of viable DUC’s in NAM drawn down significantly in the past two years, and with oil, gas and product inventories low and falling, man, it’s hard for me to imagine anything other than continued growth for this sector for the next several years.

Our customers still face constraints in workforce and capital that will continue to moderate their orders to NOV in the near term, but, ultimately, the energy shortage must be solved, and, candidly, a mild recession would somewhat ease the intense supply chain stresses presently on the oil and gas industry. However it plays out, a key part of the solution will be more orders for NOV. This is a compelling setup for a multi-year up-cycle for our company, and I’m pleased to report that we are, once again, up to the challenges of growth.

In our world, our customers always care about one thing, but the thing changes. In down-cycles, the thing is price. In up-cycles, the thing is time. We are beginning to see a distinct change in our customer conversations, with fewer questions around “how much will it cost?” and many more around “when can I get it?” This is to me the best evidence yet that we are in the very early innings of the part of the cycle where NOV was designed to flourish.

To the employees of NOV who are listening today, thank you for all you do. You are the best.

With that, I will turn it over to Jose.

JOSE BAYARDO
Senior Vice President and Chief Financial Officer

Thank you, Clay.

To recap the quarter, NOV’s consolidated revenue in the second quarter was $1.73 billion, a 12% sequential increase compared to the first quarter and a 22% increase compared to the second quarter of 2021. Adjusted EBITDA for the
second quarter totaled $150 million, or 8.7 percent of sales. All three operating segments reported sequential revenue growth and better profitability as we realized continued improvements in oil and gas equipment market fundamentals and execution against ongoing supply chain-related challenges.

The improvement in execution comes from working diligently to better forecast demand, plan, and build buffers within our inventory of raw materials and third-party sourced components that have less certainty in expected lead times. Despite seeing no improvement in the average for on-time deliveries from our vendors in the second quarter with average lead times continuing to extend, the actions taken by our team increased throughput and deliveries for our customers. Of course, building buffers has a negative impact on our inventories, working capital, and cash flow. Inventory increased $151 million sequentially, which contributed to the $145 million increase in working capital. Despite the increases, our focus on working capital management over the past few years allowed us to better mitigate supply chain risk and fund revenue growth while still delivering an improvement in all primary working capital metrics.

The build in working capital, along with a $51 million tax assessment described in our press release, resulted in a use of cash flow from operations of $124 million. Capex for the quarter was $43 million, resulting in negative free cash flow of $167 million, and we ended the second quarter with $1.72 billion in debt and $1.22 billion in cash.

Continued topline growth, supply chain challenges, and the timing of payments on certain percent of completion projects will continue to be a drag on working capital for the remainder of the year. However, at this point, we expect to generate a modest amount of free cash flow in the second half of 2022.

Moving on to segment results.

**Wellbore Technologies**

Our Wellbore Technologies segment generated $666 million in revenue during the second quarter, an increase of $58 million, or 10% compared to the first quarter, and 44% compared to the second quarter of 2021. The segment realized revenue growth in most regions on improving global drilling activity levels, pricing gains, and better execution against ongoing supply chain challenges. EBITDA flow through was 36% resulting in a $21 million sequential increase in EBITDA to $122 million, or 18.3% of revenue.

Our ReedHycalog drill bit business posted mid-single digit revenue growth, with a 16% increase in Eastern Hemisphere revenues, partially offset by the Canadian spring breakup and customer-driven project delays in the Gulf of Mexico. Growth in the Eastern Hemisphere was led by the Middle East and Western Africa where we are seeing urgency from customers in their requests for extensions on contracts nearing expiration, and they are placing large orders before pricing resets under new agreements. Our ReedHycalog products literally serve as the tip of the drill string and figuratively serve
as the tip of the spear of leading indicators for the broader segment, being one of our earliest cycle businesses. The actions our NOC customers are taking today are giving us growing confidence in an upcoming inflection in Eastern Hemisphere activity.

Our Downhole business reported a high single digit percentage improvement in revenue during the second quarter. While the unit has seen robust demand for its agitators and motors, manufacturing output has been constrained over the last several quarters due to limited availability of special elastomers and certain grades of steel used in the business’ high-spec products. The team has worked hard to mitigate operational disruptions by finding and qualifying alternate sources of materials. Their efforts began to pay off in the second half of Q2 when they were able to significantly increase throughput. Higher output and pricing led to a healthy margin improvement, which we expect will carry into the second half of the year.

Our Wellsite Services business reported a small sequential decrease in revenue. Healthy growth in our core solids control operation was offset by a decline in revenues from our Managed Pressure Drilling (MPD) product line, resulting from large capital equipment packages that shipped in the first quarter. Outlook for MPD remains solid, and we anticipate a strong rebound in revenues from the operation in the second half of the year. In our solids control operation, continued efforts to reduce environmental footprint as well as significantly higher costs for barite and diesel are driving efforts to achieve higher recovery rates from cuttings. Which in turn is creating greater demand for various NOV solutions. These range from adding an additional centrifuge, which can modestly improve recovery rates, to the greater adoption of our iNOVaTherm thermal desorption system, which can dramatically improve recoveries and reduce oil on cuttings to as low as 0.1%. Outlook for our solids control and MPD operations remains strong with international and offshore-focused markets preparing to increase activity. Improving demand will continue to absorb capacity and allow us to focus on customers that place a premium on our technology differentiation and best-in-class service.

Similar to Wellsite Services, our MD Totco™ business posted relatively flat results with solid growth in its legacy surface data acquisition system operations offset by a transitory decrease in revenue from our eVolve wired drill pipe optimization services. Despite the pullback in Q2, resulting from a few rigs in the North Sea completing wells and moving to new locations, we expect eVolve revenue will return to its upward trajectory in the third quarter. More customers are recognizing the improved drilling efficiencies, well productivity and safety benefits that our eVolve wired drill pipe services provide, which we expect will drive an increase in projects in the North Sea, Middle East and U.S. during the second half of the year.

Our Grant Prideco drill pipe business posted solid sequential revenue growth and achieved its highest order intake since 2014, with the business realizing a sharp inflection in demand for its premium pipe in the U.S. and Middle East. Customer
owned pipe inventory levels are drawing down to uncomfortable levels while drilling activity climbs, creating a renewed sense of urgency among our customers causing them to secure manufacturing.

Our Tuboscope business delivered a sequential revenue increase in the low teens with solid incremental margins. Increased demand in the U.S. and South America, fewer operational disruptions, and higher prices drove the improved results. In addition to solid sequential growth in its inspection operations, the unit realized its third straight quarter of double-digit revenue growth in its coating operations led by increasing demand for line pipe and drill pipe coating in the U.S. To meet growing demand and prevent lead times from blowing out, we recently reopened a mothballed coating plant in Amelia, Louisiana that was shut down in July of 2020. Looking ahead to the second half of 2022, we expect a continuation of solid demand in the Western Hemisphere with accelerating growth in the Eastern Hemisphere.

For our Wellbore Technologies segment, we expect North American drilling activity growth rates to moderate while momentum builds in the Eastern Hemisphere, which we expect will help drive revenue growth of four to seven percent in the third quarter. Continued strong execution and pricing improvement should more than offset the impact of ongoing supply change challenges and inflationary pressures resulting in EBITDA flow-through in the mid-thirty percent range.

**Completion & Production Solutions**

Our Completion and Production Solutions segment generated revenues of $639 million in the second quarter of 2022, an increase of 21 percent from the first quarter. The sequential improvement was broad-based with six of the segment’s eight business units reporting double-digit revenue growth. Adjusted EBITDA improved $22 million to $32 million, or 5.0% of sales. Despite a strong pickup in the shorter cycle components of the segment’s operations and improved execution, challenges with shipyard projects continue to pressure margins and limited EBITDA flow-through to 20 percent.

Book-to-bill was 132%, the sixth straight quarter of a book-to-bill greater than one. Quarter-ending backlog increased 6% sequentially to $1.44 billion, achieving its highest level since the first quarter of 2015. While bookings for the quarter were strong, we continue to see large projects push to the right. Higher commodity prices have significantly improved project economics, but shipyards, suppliers, and operators are all struggling with existing logjams in shipyards, uncertain lead times, higher costs, and stretched workforces, leading to nervous customers who are delaying FIDs. However, confidence in the long-term sustainability of improved commodity prices is slowly improving, leaving upside to this segment’s future order potential.

What we see in our XL Systems conductor pipe connection business contributes to our growing confidence that large project FIDs will rebound. Demand for our XL Systems products has historically served as an early indicator of offshore drilling activity. The business unit realized a meaningful sequential improvement in revenues and a solid level of orders...
in Q2, but, more importantly, it saw customer inquiries increase 14% sequentially and 24% year-over-year, with the average value per inquiry up roughly 40% both sequentially and year-over-year.

Our Process and Flow Technologies business unit posted revenue growth in the low teens with EBITDA flowthrough in the upper teens. Ongoing disruptions, delays and cost overruns in shipyard projects affected our Wellstream Processing and APL operations and pressured margins for the business unit. Nevertheless, interactions with customers remain upbeat, and our engineering teams are fully consumed working on paid FEED studies, which will ensure customers are ready to move projects forward as supply chains normalize. Additionally, the unit's backlog remains strong, equal to five and a half times its revenue out of backlog during the second quarter.

Our Production and Midstream operations began to see some relief from vendor delays, resulting in the operation generating revenue growth in the low teens with outsized incremental margins. Improved supplier deliveries with continued healthy demand, particularly for our production chokes in the Western Hemisphere, resulted in a significant pickup in sales.

Our pump and mixer operation revenue was flat with the first quarter, despite the operation's Shanghai manufacturing facility shutting down for the vast majority of the quarter due to COVID lockdowns. While the team's heroic efforts to meet customer demand allowed revenues to remain solid, near zero absorption in Shanghai, higher freight costs, and overtime incurred at other plants tasked with making up some of the shortfall pressured margins. Demand for pumps and mixers remains high, and the operation realized its seventh straight quarter with a book to bill greater than one.

Our Subsea flexible pipe business posted a solid rebound in Q2 after suffering from a three-week shutdown in one of our two manufacturing plants in the first quarter caused by the inability to procure sufficient quantities of polyvinyl fluoride. Additionally, the business unit realized its strongest order intake since 2017 with strong demand for projects in Brazil and in the Asia Pacific region.

Our Fiberglass Systems business unit posted a sharp improvement in revenue during the second quarter, capitalizing on six straight quarters with a book-to-bill over one and overcoming many supply-chain challenges that have plagued its operations over the last several quarters. While headwinds from inflationary pressures on raw materials, labor, and freight continue, proactive actions taken by the business to better insulate operations from material shortages reduced manufacturing disruptions. Outlook has also improved with all end markets now demonstrating solid recoveries. Demand from North American oil and gas customers finally inflected higher in the second quarter, which allowed us to achieve our highest level of bookings from this market in the last four years. We also began to see a recovery in the marine and offshore sector, driven by the increasing spread between low and high sulfur fuels, rekindling demand for scrubbers despite our customers’ appropriate reluctance to bring vessels to port while shipping rates remain elevated. The marine
sector is also benefiting from growing demand in the wind power installation space with our operation receiving an order to provide its Bondstrand™ glass-reinforced epoxy piping for use in a new wind turbine installation vessel.

Our Intervention & Stimulation Equipment business posted revenue growth in the mid-teens with solid improvements in each of the business’ product lines. The unit also achieved its fourth straight quarter of improved bookings and its third straight quarter with a book-to-bill above 100 percent. Demand for pressure pumping equipment, parts, and service continues to evolve as service market fundamentals improve. Beginning in the fourth quarter of 2020, customers began reactivating stacked fleets, with the average level of difficulty increasing through 2021 as they dug deeper into their stacks of parked equipment. We then saw a shift toward fleet overhauls and rebuilds and are now seeing demand for new-build equipment and booked orders for 62,500 horsepower of pressure pumping equipment during the second quarter. Despite the strong orders, we expect to see a dip in pressure pumping revenues in the third quarter, resulting from the completion of large aftermarket reactivation projects in the second quarter and ongoing supply chain constraints that are extending lead times for newbuild deliveries. The business unit’s coiled tubing and wireline operations are also realizing growing demand from higher service activity in North America and from a growing number of international markets where customers are preparing for higher activity in the coming quarters.

For the third quarter, we expect our Completion & Production Solutions segment’s growing backlog to drive revenue growth between one to five percent. While the segment will continue to face supply chain disruptions and inflationary pressures through the remainder of the year, the combination of growing demand and improved execution should drive EBITDA incremental margins into the mid-30 precent range in the third quarter.

**Rig Technologies**

Our Rig Technologies segment generated revenues of $462 million in the second quarter, an increase of $21 million or 5% sequentially. Top-line growth was led by continued strength in the segment’s aftermarket operations. Adjusted EBITDA improved $5 million to $41 million, or 8.9% of sales.

New orders totaled $140 million, representing a book to bill of 80%. Total backlog for the segment at quarter end was $2.84 billion. Orders included the design and jacking system for another next generation wind power installation vessel. The rest of the order book consisted of top drives, handling equipment, pumps, BOP controls and components, and other miscellaneous equipment for replacements and upgrades. While this type of order book reflects a market that is still healing, there are many signs that indicate this process is accelerating.

As Clay touched on, recent public contracting datapoints have been very encouraging, with key offshore customers securing contracts at day rates more than two times the average rate seen in 2020.
In the U.S. land market, average day rates in the Permian increased 33% in the last three months with the blended average day rate still more than 25% below leading-edge rates. This means we can expect our customers’ cash flows to continue improving rapidly, which is critical since access to capital remains a challenge for the industry. Until the broader financial markets once again reward high return investments in oil and gas equipment, customers will need to self-fund their equipment needs. Fortunately, as I just mentioned, cash flow for our customer base is improving at a rapid pace. Near-term, we expect the bulk of our Rig Technologies segment’s capital equipment orders to come from replacements and upgrades for the existing rig fleet.

While rig capital equipment orders remain modest, quickly improving day rates are driving a much-improved environment for our aftermarket operations. We are seeing steadily increasing demand for reactivation, recertification, overhaul, and upgrade projects in all major regions. We’ve also seen orders for spare parts improve over the past six quarters, with Q2 orders achieving pre-pandemic levels.

Supply chain constraints are still limiting our manufacturing output, resulting in backlog growth that continues to outpace our ability to get parts to our customers. While throughput and revenue from spare parts improved in the second quarter, bookings increased 9%, and our backlog also increased. Growing demand and our focus on continuing to improve our ability to secure materials and ramp manufacturing throughput is making us increasingly optimistic about the prospects for the segment to generate improved financial results in the second half of this year and gather momentum for an improved 2023.

For the third quarter, we expect revenue for our Rig Technologies segment to grow between five to ten percent sequentially with EBITDA flow-through in the mid-teens.

While we are pleased with the recovery in profitability in the second quarter, there remains substantial room for improvement with the upturn in our business in the very early innings of what we believe will be a multi-year recovery. What we see in each of our operating segments is in-line with what we expect; short cycle businesses realizing rapidly improving results, initially driven by activity in North America and now shifting to the Eastern Hemisphere; shorter cycle capital equipment businesses seeing increased demand; and aftermarket operations of long-cycle capital equipment businesses ramping up. Every cycle is a little different, and this recent downcycle has been more severe than most, if not all, prior downturns. We are still facing headwinds from global supply chain challenges and investor pressure on our customers to avoid investments in their operations. We believe these issues are creating more pent-up demand for assets that are needed to address growing global energy supply and security challenges and will prove transitory. While we do not expect these constraints to alleviate in 2022, we do anticipate a significant improvement in our results and expect to see demand for more of our products and technologies inflect, which should allow NOV to deliver second half 2022 EBITDA that is 45 to 55 percent greater than what we achieved in the first half.

With that, we will now open the call up to questions.