

McCoy Global Inc.

(TSX:MCB; OTC:MCCRF)

Sell Shovels in a Gold Rush...



... or in this case sell Case Running Tools, remote Torque Turn Monitoring Systems and digital IoT technologies to the oil industry.

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1. The History of Oil Drilling

1.1. Introduction

The history of oil extraction and usage stretches back over millennia. The earliest known use of oil goes back to ancient times when the Sumerians and Babylonians used crude oil and asphalt, collected from natural seeps, for a variety of purposes including caulking for ships, construction materials, and medicinal treatments. Recorded use in the Middle East dates back to at least 3000 B.C., and by 347 A.D., the Chinese had developed sophisticated drilling technology, using bamboo poles to extract oil for use as a fuel for salt evaporation.

Fast forward to 1846, when Canadian geologist Abraham Gesner distilled kerosene from oil, setting the stage for the oil industry's first leap towards the modern age. This innovation presented a cleaner and more efficient fuel alternative to whale oil and coal, primarily used for lighting homes and streets. Then, in 1859, the American oil industry was born when Edwin L. Drake struck oil after drilling 69 feet into the ground near Titusville, Pennsylvania. This marked the world's first successful oil well drilled specifically for oil extraction, leading to the Pennsylvania Oil Rush.

Drake's success inspired a wave of exploration and technological innovation. The iconic image of the gushing oil derrick became a symbol of economic opportunity. The use of rotary drilling technology, invented by French brothers Robert and Claude Bell in the 1860s, marked a significant advancement in drilling deeper and more efficiently. As the industry grew, so did the need for regulation and environmental management, leading to the creation of the first oil barons and the establishment of Standard Oil by John D. Rockefeller in 1870.

The discovery of oil at Spindletop Hill in Beaumont, Texas in 1901 by prospector Patillo Higgins and engineer Captain Anthony F. Lucas forever changed the scale of oil production. The well produced an unprecedented flow of oil, indicating that much larger reserves existed than previously thought. This event ushered in the Texas Oil Boom, signaling the emergence of the United States as a major player in the global oil industry.

The early 20th century saw a surge in demand for oil products. The advent of the internal combustion engine, and the mass production of automobiles by Henry Ford, shifted oil's primary use from illumination to fuel. This period also saw the expansion of the oil industry globally, with British businessman William Knox D'Arcy securing oil exploration rights in Persia, leading to the discovery of oil there in 1908 and the eventual formation of the Anglo-Persian Oil Company, later known as BP.

World War I further demonstrated oil's strategic importance as a fuel for ships, tanks, and aircraft. The interwar years saw continued growth in the demand for petroleum products, not only as fuel but also for the burgeoning chemical industry, producing fertilizers, plastics, and pharmaceuticals. Oil exploration and production expanded throughout the Middle East, Venezuela, and the Soviet Union.

By the 1920s and 1930s, the United States had become the world's leading oil producer, with companies like Standard Oil, Gulf Oil, and Texaco expanding operations globally. The oil industry's influence began to extend beyond commerce into politics and international relations, with oil-rich regions becoming strategically important.

The global landscape of the oil industry at the dawn of the 20th century set the stage for the modern era. The technological advancements made in exploration, drilling, refining, and transportation during this period laid the groundwork for today's oil economy. The impact of oil on global geopolitics, economic development, and the environment became increasingly apparent, with oil becoming the world's most traded commodity and a cornerstone of industrial development.

By the mid-20th century, the geopolitical significance of oil was undeniable. The discovery of vast oil reserves in the Middle East transformed the region into a focal point of international politics and economic interest. Countries like Saudi Arabia, Iran, Kuwait, and Iraq became crucial players in the global oil market. The establishment of the Organization of the Petroleum Exporting Countries (OPEC) in 1960 by Iran, Iraq, Kuwait, Saudi Arabia, and Venezuela marked a shift towards the cartelization of oil production, allowing member countries to exert greater control over oil prices.

The 1970s were a tumultuous period for the oil industry, marked by two major oil crises that dramatically increased prices and highlighted the world's dependence on Middle Eastern oil. The 1973 Arab-Israeli War led to an OPEC oil embargo, causing prices to quadruple and prompting Western countries to seek ways to reduce their reliance on imported oil. The Iranian Revolution and the onset of the Iran-Iraq War at the end of the decade led to another steep rise in oil prices and further underscored the vulnerability of global oil supply chains.

In response to these crises, the 1980s saw increased exploration and production activity in non-OPEC regions, particularly the North Sea and Alaska, driven by advances in offshore drilling technology. The period also witnessed a growing environmental consciousness, with the oil industry facing increased scrutiny following incidents like the Exxon Valdez oil spill in 1989. This event spurred significant changes in regulation and practices concerning oil transportation and environmental safety.

The turn of the 21st century brought new challenges and changes to the oil industry. Technological advancements such as deep-water drilling and hydraulic fracturing, or "fracking," opened up new resources and reshaped the industry. The United States experienced a resurgence in oil production, becoming one of the world's top producers thanks to shale oil extracted via fracking. However, this boom also brought environmental concerns to the forefront, with debates intensifying over the impact of oil operations on climate change and local ecosystems.

However, the need for oil continues. As a source of energy, the distillation process for oil creates many different products: gasoline, diesel, lubricating oils, asphalt and bitumen. It forms part of many chemical processes and is an integral component in the manufacture of plastics, synthetic rubber, and petrochemicals. It's used in pharmaceutical synthesis, and the production of fertilizers, cosmetics, and construction materials. Synthetic fibers like polyester, nylon, acrylic, Gore-Tex, and spandex, as well as dyes, finishes and accessories like buttons, zippers and sequins often contain plastic and so cannot be produced without oil. It seems clear that oil cannot be immediately replaced as things stand currently. Oil will remain necessary for many decades, as replacements for the various products and processes above have yet to be created.

1.2. The History of McCoy Global

1.2.1. Overview

McCoy Global is a Canadian engineering and oil drilling technology company. It is dual listed on the Canadian Toronto Stock Exchange (MCB.TO) and OTC Markets (under ticker MCCRIF). The story of McCoy Global Inc. began over a century ago with the establishment of an engineering workshop by a Canadian blacksmith. The company, rooted in a commitment to quality and a drive for innovation, underwent a series of significant transformations since inception. Originally focused on auto springs, McCoy evolved through various stages including axle manufacturing, trucking, and trailers.

The company's move into the energy sector began with a shift to hydraulic power tongs, which marked its entry into oilfield equipment manufacturing. McCoy has continued to expand its technological offerings, developing advanced engineering solutions for wellbore integrity and data acquisition suitable for harsh environments. These developments were part of McCoy's broader strategy to provide smart technology solutions, including cloud-based automated systems, and the potential for leveraging the Internet of Things.

1.2.2. History

McCoy was founded in Edmonton, Alberta as an engineering shop by blacksmith Henry McCoy in 1914. McCoy then established the Edmonton Auto Spring Works in Edmonton for automobile spring repair which he saw as a service of the future at that time. This foresight recognized the increasing reliance on automobiles in the modern world and the demand for specialized spring repair that would be needed for vehicle performance and longevity.

Figure: H.D. (Henry) McCoy



The second generation of McCoy's, William and Lawrence, opened McCoy Brothers Spring and Steering Shop in 1947. Scona Spring and Steering opened in 1952 and later began the manufacture of oilfield trailers. These are built to transport heavy equipment, machinery, and materials necessary for oilfield operations, having robust construction and often customized to handle the challenging environments and demands of oil and gas extraction sites.

McCoy's Spring and Steering joined the Edmonton Auto Spring Works in 1955. The spring and axle business remained a part of McCoy until it was sold in 2003. Continuing on from their engineering background, in 1976 McCoy began to machine parts for production of hydraulic power tongs. These tongs are used in the oil and gas industry for gripping and turning pipes

during drilling operations. Then a decade later McCoy acquired Farr Canada establishing it as a fully-fledged equipment provider to the oil industry and expanded their product range.

McCoy went public in 1997 on the Toronto stock exchange and by 2001 the company was repositioned fully toward oil and gas machinery production (with the other non-core businesses sold off soon afterwards). Jim Rakievich became CEO in 2002 (see later for a discussion of his background). In 2013 they listed on the OTC over-the-counter market.

The company acquired 3PS in 2017, a specialist in sensors, systems and services for heavy industrial applications, including torque and tension sub (TTS) technology. This will be discussed further, but this purchase included the real-estate holdings of 3PS. This was the beginning of the pivot towards the application of higher tech to oil drilling systems. They continued this theme with the purchase of DrawWorks in Boling, Texas. This gave the company access to tubular running technologies. In 2020 McCoy launched its first fully digital product the Virtual Thread-Rep™ a cloud-based platform to monitor and control tubular connections. These developments will be discussed in further detail later because they are essential in understanding the true nature of McCoy Global's business and how it is evolving.

References:

<https://www.amazon.co.uk/King-Oil-Secret-Lives-Marc/dp/031265068X>

<https://www.amazon.co.uk/Prize-Epic-Quest-Money-Power/dp/1847376460>

2. McCoy Global's Business

Anyone reviewing oil stocks in early 2023 would have seen that they appear cheap on a variety of simple earnings and valuation metrics, but almost all of them don't appear as cheap once you start to estimate current earnings given oil prices that are now more than 30% lower than the highs in 2022. After conducting this analysis on many oil stocks, it becomes clear that they are not as inexpensive as they might initially appear and are obviously subject to a lot of commodity price risk.

Beyond oil and gas producers, it is interesting to explore the broader ecosystem, including related service providers or companies situated upstream and downstream of the major oil companies. These entities, though not directly involved in oil production, are nonetheless integral to the industry's supply chain. They offer a diverse range of investment opportunities, potentially with different risk profiles and market dynamics compared to the oil producers themselves. Looking through these service provider or manufacturing companies that are driven by the capex demands of the oil products gives a more comprehensive view of the sector and can

help identify undervalued entities that might be better positioned to withstand fluctuations in oil prices¹.

And then you come across McCoy Global. We will discuss valuation later, but it is a cheap, growing business with an unleveraged cash rich balance sheet. It has many of the hallmarks that we like including a long family-oriented history, invested CEO, exciting products and services with a recent pivot in the business that means the future will be different (and better) than the past. In the next sections we will discuss more about the current business of McCoy Global.

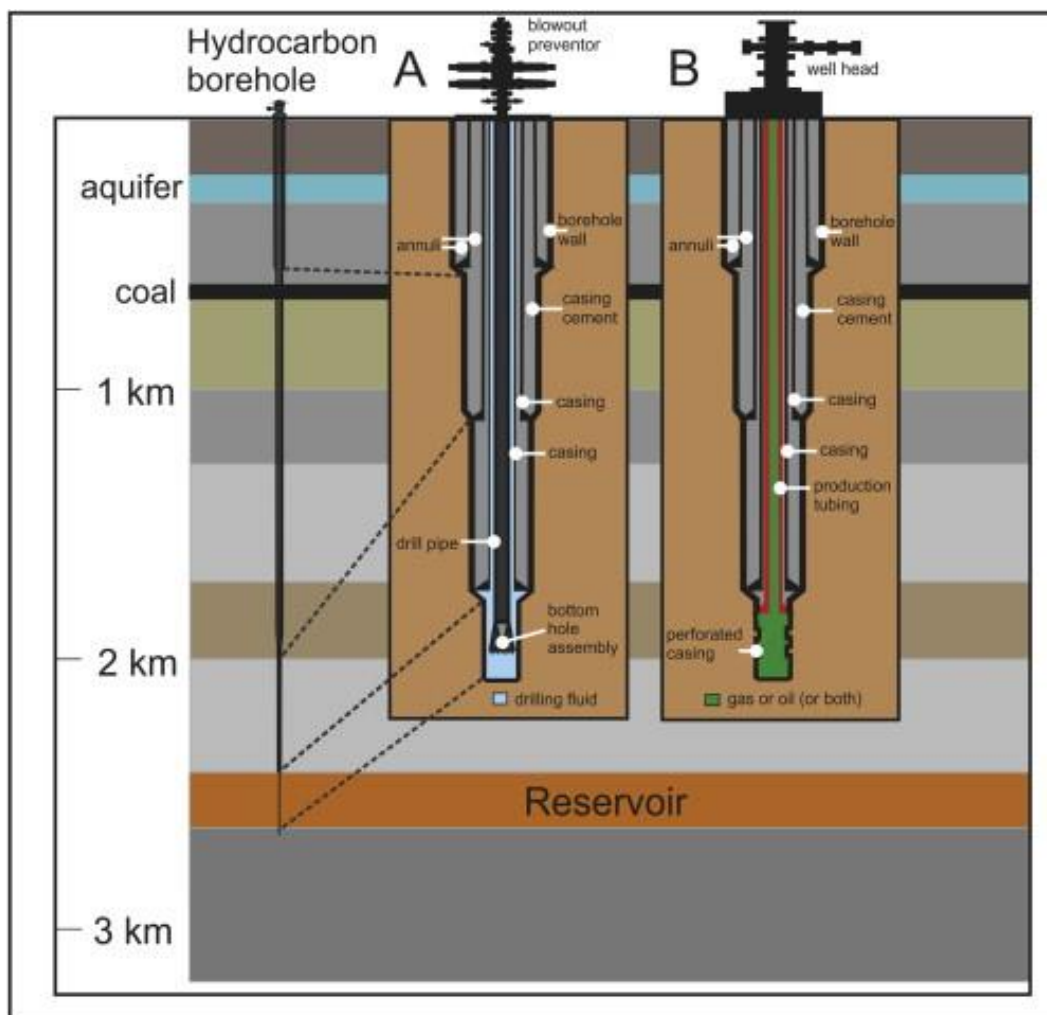
3. Oil Drilling Market

3.1. Structure of Oil Wells

The diagram below shows a cross-sectional view of a typical hydrocarbon well, illustrating the various components involved in the construction and functioning of an oil or gas well. Below we will describe the purpose of each element of an oil or gas well during the drilling phase and production (or extraction phase). We will assume no knowledge of the industry, and this will hopefully give some background that will be useful later when describing the products, services, and business of McCoy Global in more detail.

¹ During a gold rush, sell shovels. Although there is not a “rush” in the oil industry, you will hopefully see what we mean!

Figure: Structure of a typical well during exploration and drilling phases



3.1.1. Drilling Phase

Hydrocarbon Borehole

The hydrocarbon borehole is the central artery of an oil or gas well. It is meticulously drilled from the surface down through the earth's multiple layers to reach subsurface formations that contain oil and gas, collectively known as hydrocarbons. The borehole's design and trajectory are carefully planned to optimize the extraction of these valuable resources. Throughout its length, various technical measures are implemented to ensure the borehole's stability and to protect the integrity of the surrounding rock layers and aquifers. The successful creation of a borehole is a testament to the advanced engineering and geological understanding that enables the extraction of energy resources deep from within the Earth.

Blowout Preventer

A blowout preventer (BOP) is a critical component in oil drilling operations, acting as a high-pressure security guard for an oil well. Attached at the well's surface, the BOP's primary function is to prevent blowouts, the catastrophic ejection of crude oil or natural gas, by sealing the wellhead if pressure control systems fail. It can close off the well completely or regulate the pressure by choking the flow of hydrocarbons. This device is a cornerstone of drilling safety, designed to protect life, the environment, and the drilling platform from the intense pressures encountered during drilling operations.

Aquifer

An aquifer is an underground layer of water-saturated permeable rock, gravel, sand, or silt from which water can be extracted, usually through a well. In the context of oil and gas drilling, aquifers represent a critical natural resource that must be protected. During the drilling process, operators take stringent precautions to avoid the contamination of these subsurface water reserves. The integrity of aquifers is essential not only for maintaining drinking water quality but also for preserving the ecological balance of the surrounding environment.

Coal Formations

Coal formations, often found within the stratified layers of the Earth, are not the target for oil and gas wells but are commonly encountered during the drilling process. Although primarily mined for use as a fossil fuel, coal layers must be drilled through with precision and care when accessing deeper hydrocarbon-rich reservoirs. These sedimentary rock layers, composed mainly of carbon and hydrocarbons, can pose specific drilling challenges and require particular attention to ensure that the drilling equipment and surrounding geological structures remain uncompromised.

Casing

Casing is a series of steel pipes that line the borehole, playing a critical role in well integrity and the prevention of potential environmental issues. Once a section of the hole is drilled, casing is inserted to stabilize the wellbore and is a primary defense against any unwanted exchange of fluids between the well and the surrounding rock formations. This robust pipe barrier supports the well through its production life, allowing for the safe and efficient extraction of oil and gas.

Casing Cement

Casing cement is a specialized type of cement that is pumped into the annular space between the casing and the borehole wall. This cement plays a crucial role in permanently setting the casing in place. It forms a sealed barrier, preventing the movement of fluids between different geological layers, protecting groundwater sources, and securing the wellbore. The integrity of

casing cement is essential for preventing leaks that could lead to blowouts or environmental contamination.

Drill Pipe

The drill pipe is an essential component of the drilling apparatus, resembling a massive steel straw that provides a conduit for the drill bit at the bottom of the well. It is both a structural element, giving heft and stability to the drilling operation, and a dynamic tool, as it rotates the drill bit and pumps drilling fluid down to the bit and back up the borehole. The robustness and reliability of the drill pipe are paramount, as it must withstand the mechanical stresses of drilling and the corrosive nature of the drilling fluid.

Bottom Hole Assembly

The bottom hole assembly (BHA) is the lower portion of the drilling apparatus that includes the drill bit, which physically breaks apart the rock, and various other components necessary for drilling, such as measurement tools and the drilling motor. The BHA is critical for the drilling process and directional control; it is laden with sensors and tools that provide real-time data on the geological formations being drilled, ensuring that the well path is optimized for extraction and that the drilling process is efficient and safe.

Drilling Fluid

Drilling fluid, often called "mud," is a multipurpose mixture that plays several vital roles in drilling operations. It is pumped down the drill pipe and exits through jets in the drill bit, helping to cool and lubricate it during its rotation and cutting action. As it circulates back to the surface, it carries with it the rock cuttings from the borehole, which are then filtered out. Drilling fluid also maintains hydrostatic pressure, preventing the collapse of the borehole walls and the uncontrolled flow of fluids from the formation into the borehole, thus ensuring the safety and continuity of the drilling operation.

3.1.2. Production Phase

Well Head

The well head is the above-ground component of the well that provides the structural and functional interface for the drilling and production equipment. It is a complex assembly of valves, spools, and fittings that sits atop the wellbore. The well head plays a crucial role in safely managing the extraction of hydrocarbons by regulating the pressure inside the well, controlling the flow of oil and gas, and preventing leaks. It is also the attachment point for the blowout preventer during drilling and for production equipment, such as pumps and pipes, once the well

is completed. The well head is engineered to withstand the operational pressures and environmental conditions it will face over the life of the well.

Production Tubing

Production tubing is a series of interconnected pipes that run inside the casing from the bottom of the well to the surface. It provides a continuous and efficient conduit for the flow of oil or gas from the reservoir to the surface processing equipment. The use of production tubing isolates the fluid flow to the inner channel, minimizing contact with the casing and thus reducing corrosion risk and maintaining integrity of the wellbore. Additionally, by providing a smaller cross-sectional area for the oil and gas to flow through, production tubing helps to optimize the lifting process and control the velocity of the produced fluids.

Perforated Casing

The perforated casing is a section of the well's casing that contains precisely engineered holes or slots which are created after the casing is set in place. This perforation is carried out at the depth of the hydrocarbon-bearing formation and serves as a gateway for oil and gas to enter the well from the surrounding reservoir rock. The size, number, and pattern of these perforations are designed to maximize the flow of hydrocarbons while minimizing the entrance of unwanted materials, such as sand. The integrity of the perforated casing is vital as it must maintain structural strength despite being punctured, ensuring long-term durability and effectiveness in the production phase.

Reservoir

A reservoir is a geological formation composed of porous rocks saturated with hydrocarbons, such as oil or natural gas. These rocks have sufficient porosity and permeability to store and transmit fluids. The reservoir is the source of the hydrocarbons that are extracted through the wellbore. Understanding the characteristics of the reservoir—such as its size, shape, pressure, temperature, and the properties of the hydrocarbons it contains—is essential for the planning and development of the well. This knowledge dictates the drilling strategy, the design of the well, the production techniques used, and ultimately the economic viability of the well. The reservoir's ability to deliver hydrocarbons to the wellbore depends on the natural drive mechanisms, which may include gas expansion, water influx, or gravity drainage.

In essence, the structure of an oil well is designed to safely and efficiently extract hydrocarbons from beneath the earth's surface. The drilling phase involves creating a borehole down to the reservoir, securing it with casing and cement, and using drilling fluid to maintain integrity and bring cuttings to the surface. Once the well reaches the production phase, the hydrocarbons are brought to the surface through production tubing, with the wellhead being the control point on

the surface. The perforated casing in the reservoir allows the hydrocarbons to enter the well while containing them within the well structure.

References:

https://www.researchgate.net/figure/Schematic-diagram-of-typical-well-design-showing-A-structure-of-an-exploration-well_fig7_261030163

4. McCoy Products

Throughout its history, McCoy Global has aggressively embraced change, adapting to meet the evolving needs of its customers. The company's ability to offer highly customized solutions has been a key factor in its success. Despite the vast changes over the years, McCoy's unwavering focus on quality and customization has remained a constant, ensuring that its products and services uphold the company's long-standing promises.

The product range of McCoy Global is very large, so here we will just focus on a few key example products:

- **Hydraulic Power Tongs:** These are essential for making up and breaking out pipe connections in drilling operations. They are known for their robustness and efficiency in handling various pipe sizes.
- **CRTs (Casing Running Tools) and smartCRTs:** Representing a significant advancement over traditional power tongs, these tools integrate lifting, gripping, and rotating functions for casing operations. They are becoming increasingly preferred due to their enhanced safety, efficiency, and precision.
- **Flush Mounted Spider:** This tool is used for handling and gripping pipes or casings in drilling operations, known for its reliable performance and safety features.
- **DWCRT 450 and DWCRT 450Ton Casing Running Tool:** These are specific models of CRTs that McCoy has sold in recent weeks, highlighting their growing popularity and effectiveness in the field.

The preference for CRTs over hydraulic power tongs, as noted by the CEO, is a reflection of the industry's shift towards more integrated, efficient, and safer tools. CRTs offer multiple operational advantages, such as improved safety due to reduced manual handling, greater efficiency by performing multiple tasks simultaneously, and enhanced precision and control in casing operations. These benefits not only contribute to safer and more effective drilling operations but also potentially lead to cost savings in the long run.

The company has a wealth of products, and it would take an entire paper to cover them all, but we've listed some key products here to give a flavour of the kinds of products that McCoy offers and the technological direction that they are pursuing. Many of these products are relatively new and the company is constantly developing new ones based on feedback from customers, in order to solve specific industry problems and satisfy new use cases.

4.1. Product Details

The following section describes some of McCoy Global's products in more detail including Case Running Tools, hydraulic power tongs, flush-mounted spiders and in the next sections some more details on digital-only products. We show some of the details on these products below to highlight the array of products and high-level of engineering quality. Many competitors offer a range of products as well, but none have the full set of drilling-specific products as shown here.

CRTs (Casing Running Tools) and hydraulic power tongs are both used in the oil and gas industry, primarily for handling and making up (connecting) sections of pipe or casing during drilling operations. Here's a basic comparison:

1. CRTs (Casing Running Tools): CRTs are advanced tools that combine the functions of lifting, gripping, and rotating the casing. They offer better control and efficiency in casing operations than hydraulic power tongs. CRTs can handle the pipe and simultaneously rotate and circulate fluid through the casing, which is essential for wellbore integrity. They are designed to improve safety by minimizing manual handling and reducing the number of personnel on the rig floor.

2. Hydraulic Power Tongs: Traditional power tongs are used for gripping and turning the pipe (like tightening a bolt with a wrench) during make-up and break-out operations. They are simpler in design compared to CRTs and have been the standard tool for many years. However, they require more manual intervention and do not integrate lifting and circulating functions.

The increasing preference for CRTs over hydraulic power tongs can be attributed to several reasons:

- **Safety:** CRTs reduce the need for manual handling and personnel interaction with the pipe, lowering the risk of accidents.
- **Efficiency:** CRTs can perform multiple tasks simultaneously (like gripping, rotating, and circulating), which speeds up operations and saves time.
- **Precision and Control:** CRTs provide better control over the casing operations, which can lead to more accurate casing placement and improved well integrity.

- **Cost-effectiveness:** Although CRTs might be more expensive initially, their efficiency and safety features can lead to lower operational costs in the long run.

Overall, CRTs are seen as a more advanced, safer, and efficient alternative to traditional hydraulic power tongs, especially for complex or high-risk operations.

4.1.1. smartCRT™ Casing Running Tool

As described in the company product pages, this product fits into the digitization and automation strategy of McCoy:

“McCoy’s smartCRT provides real time data direct to the driller’s cabin. It uses an easy-to-navigate display that allows the driller to access a variety of data while operating the tool. smartCRT increases productivity by reducing the reliance on on-site CRT technicians. Increase your productivity by reducing your reliance on CRT technicians and reducing extensive Driller training time with the McCoy smartCRT”

A case running tool (CRT) is a piece of equipment used in the oil and gas industry during the drilling of wells and as its name suggests it’s used to install the casing in the well. The casing is a large diameter pipe that is screwed together in sections and prevents the wellbore from collapsing or allowing in external fluids, and protecting the hydrocarbons that are being extracted in the centre of the well.

Previously the connections and construction of the casing would be a very manual process and require a lot of skill and experience to know when the casing sections are correctly joined together without exceeding torque and force tolerance limits. The integrity of the casing is key for the successful building of the well.

McCoy’s “smartCRT” tool allows this process to be more automated with the operators removed from the close vicinity of where accidents might happen. It also provides a lot of real-time sensor data to monitor torque, tension, pressure, RPM, and also provides make-up reports. This CRT includes systems that allow for the precise control of the torque applied to each joint of casing, ensuring that each is screwed together with the exact force necessary to maintain a seal without damaging the pipe.

The "make-up report" refers to the detailed documentation of the process of connecting casing sections (joints) during well construction. When each joint of casing is screwed into the previous one, it's important to ensure that the connection is tightened to the correct specification. This tool will also give the operators data on how each connection has been put in place. Some

competitors such as Volant and Expro also have digital or partly digital CRT products, but again they don't offer the full suite of products that McCoy does.

Figure: smartCRT™

McCoy Global smartCRT Easy-to-Navigate Display System

Specifications of 750 Ton smartCRT

Tubular Size	Weight Range	Casing ID (in)	API 8C Hole Capacity (tons)	Torque Capacity (ft*lbs)	Set Down Weight (Tons)	Min ID (in)	Flow Rate (bbl/min)	OAL (in)	OAL w/ Circulator (in)	OD (in)	Approx. Weight (lbs)
7"	17 - 35#	6.538 - 6.004	400	50,000	100	1.5	12	124	142	19.75	3600
7-5/8"	24 - 42.8#	7.025 - 6.501	400	50,000	100	1.5	12	124	142	19.75	3600
8-5/8"	24 - 44.4#	8.097 - 7.625	750	90,000	100	2.0	20	124	144	19.75	3800
9-5/8"	36 - 59.4 #	9.921 - 9.407	750	90,000	100	2.0	20	124	144	19.75	3900
9-7/8"	62.8#	8.625	750	90,000	100	2.0	20	124	144	19.75	3900
10-3/4"	40.5 - 60.7#	10.050 - 9.660	750	90,000	100	2.0	20	124	144	19.75	4000
10-3/4"	65.7 - 85.3#	9.560 - 9.156	750	90,000	100	2.0	20	124	144	19.75	4000
11-3/4"	47 - 71#	11.090 - 10.586	750	90,000	100	2.0	20	124	144	19.75	4100
11-3/4"	71 - 87.2#	10.586 - 10.282	750	90,000	100	2.0	20	124	144	19.75	4100
12-3/4"	44 - 77#	12.080 - 11.584	750	90,000	100	2.0	20	124	144	19.75	4100
13-3/8"	54.4 - 85#	12.615 - 12.159	750	90,000	100	2.0	20	124	144	19.75	4300
13-5/8"	88.2#	12.375	750	90,000	100	2.0	20	124	144	19.75	4300
16"	65 - 109#	15.250 - 14.688	750	90,000	100	2.0	20	124	149	19.75	4700
16-3/4"	65 - 109#	16.250 - 15.750	750	90,000	100	2.0	20	124	149	19.75	4700
18-5/8"	87.5 - 136#	17.755 - 17.239	750	90,000	100	2.0	20	124	149	19.75	5100
20"	94 - 133#	19.124 - 18.730	750	90,000	100	2.0	20	124	149	19.75	5400
20"	163 - 187#	18.625 - 18.125	750	90,000	100	2.0	20	124	149	19.75	5400
22"	170 - 224#	20.438 - 19.938	750	60,000	100	2.0	20	124	149	19.75	5800
24"	171 - 216#	22.685 - 22.185	750	60,000	100	2.0	20	124	149	22	6300
28"	292 - 275#	24.850 - 24.050	750	60,000	100	2.0	20	124	149	24	7000
30"	TBD	TBD	750	60,000	100	2.0	20	124	149	28	7000

Dynamic Window allows the Driller to access a variety of data for the job at hand

Driller Display

Graphic Display

- » Digital representation of the actual movements of the tool
- » No longer does a driller need to have line of sight and rely on assistance from a person on the rig floor to understand the state of the tool and ensure proper set, release etc.

Display

- » Load display and warning when safe load limits are approached
- » Prevents damage to the tool and casing

Contact a McCoy sales representative today for a full presentation | mccoysglobal.com/MTT | sales@mccoysglobal.com

DWCRT 450Ton Casing Running Tool

The DWCRT 450Ton Casing Running Tool is a highly advanced and integral component in modern drilling operations, designed and manufactured by McCoy Global. This tool is a significant step forward in the technology used for handling, running, and securing casing in oil and gas wells.

Key Features and Functions of the DWCRT 450T:

Multi-functional Design: The DWCRT 450T is engineered to perform a variety of critical tasks during drilling operations. This includes making up, rotating, reciprocating, filling, taking flow-back, circulating, and drilling while running casing with a top drive.

Efficient Casing Operations: The tool is specifically designed to pick up, screw, and torque the casing up to the string. It facilitates the running of the string into the well, thereby streamlining the process and improving efficiency. The ability to perform rotating, reciprocating, and circulating operations on-the-fly is a significant advantage, as it minimizes downtime and enhances operational flexibility.

Safety and Precision: Safety is a paramount concern in drilling operations, and the DWCRT 450Ton is designed with this in mind. It minimizes the need for manual handling, thereby reducing the risk of accidents. Additionally, the tool provides greater control over casing operations, which leads to more precise and accurate placement of casings.

Operational Versatility: The DWCRT 450Ton is capable of handling a wide range of casing sizes and types. Its versatility makes it suitable for various drilling scenarios, from standard operations to more complex and demanding environments.

Cost-Effectiveness: Although initially more expensive than traditional tools, the DWCRT 450Ton's multifunctional capabilities and operational efficiencies can lead to significant cost savings over time. By reducing the number of tools and personnel needed to run casing, operational expenses are lowered.

Compatibility with Top Drive Systems: The tool is designed to attach to the top drive quill, using controlled movements of the top drive to facilitate its various functions. This compatibility further integrates the DWCRT 450Ton into the modern drilling rig setup.

Advantages Over Conventional Techniques:

Reduced Labor and Equipment Requirements: The DWCRT 450Ton reduces the number of tools and personnel required to run casing, streamlining operations and reducing labor costs.

Enhanced Operational Safety: By automating many of the processes involved in casing operations, the DWCRT 450Ton significantly enhances safety on the rig floor.

Improved Efficiency and Flexibility: The tool's ability to conduct multiple operations simultaneously and on-the-fly enhances the overall efficiency of drilling operations and provides greater operational flexibility.

Application in the Industry:

The DWCRT 450Ton has become increasingly popular in the oil and gas industry, particularly for operations that require high levels of efficiency, safety, and precision. Its adoption reflects

the industry's move towards more integrated, automated, and safer tools for complex or high-risk operations.

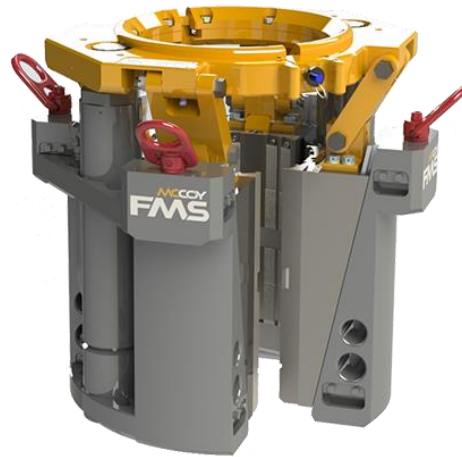
4.1.2. Flush Mounted Spider

Part of the smarTR™ product suite, the flush mounted spider, so-called because it grips in a similar way to a spider gripping its prey. McCoy's smartFMS™ is a piece of innovative rotary equipment designed for modern oil well completion and drilling operations, specifically geared towards efficient and safe handling of casing. It features replaceable die carriers and is capable of providing back-up torque of up to 50,000 ft lbs from the first pipe joint. This capability is significant because it eliminates the need for integrated backups and manual tongs, traditionally used in well construction. The smartFMS™ fits snugly inside of the rotary table (a part of the drilling rig that provides rotation for the drilling operation) with a relatively low profile, efficiently reacting backup torque (counter-rotational force applied to stabilize a section of the drilling assembly) and supporting the weight of the casing string.

One of the key advantages of the smartFMS™ is its contribution to increased operational efficiency and safety. By removing the need for latching and unlatching of manual tongs (large wrenches used in drilling operations to manually make up and break out pipe) and integrated backups (these hold the pipe in place and prevent it from turning in the opposite direction of the applied torque), it significantly reduces the time required for these operations. Additionally, it enhances the safety of the casing crew by removing them from potential pinch points, a common hazard in traditional methods.

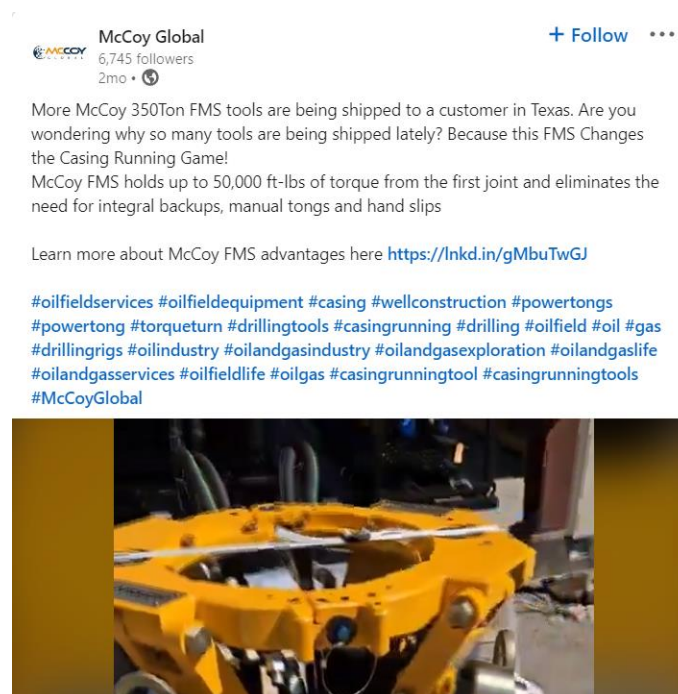
The smartFMS™ is a fully connected device, providing real-time information about the state of the tool directly to the driller's display (the screen or interface used by the person operating the drilling equipment). When used in conjunction with the smartCRT™, both tools are constantly monitored, ensuring they are not open simultaneously, which further enhances operational safety. This continuous monitoring and the automation of the smartFMS™ significantly reduce the chances of human error, guaranteeing consistency and repeatability in operations.

Figure: Flush-mounted spider



Below you can see an example recent post by the company on LinkedIn showcasing some of the sales of various products listed here. There appears to be a healthy flow of products being shipped and an increasing number of repeat orders from customers. The customers are located across the globe. The company states that it ships to over 50 countries. There are also many comments from the customers themselves about the products shipped, and after-sales services the company provides like initial training.

Figure: Company LinkedIn Pages



Power Tongs: KT13625-35K tong

Another of the many products that McCoy is getting traction with (or should that be torque?!) are these power tongs. Tools like the KT13625-35K tong from McCoy are semi-automated solutions used for hydraulically manipulating pipes in drilling operations. These types of tongs automate the process of connecting and disconnecting drill pipes, which traditionally required significant manual effort. By utilizing such equipment, the need for staff to be in close proximity to potentially hazardous drilling operations is reduced. This contributes to enhanced safety on the drilling floor by minimizing the direct physical involvement of the crew, thereby reducing their exposure to risks associated with manual handling of drilling equipment.

Figure: KT13625-35K tong

Looking through the companies LinkedIn posts we can see that a lot of product has been shipped in recent weeks, including many supplies to the Middle East. The company has discussed how oil and gas producers in the middle east that used to outsource drilling setup operations to Western companies have now gained the skills to run these operations themselves. In addition, Eastern companies are always keen to purchase the required tooling from one supplier rather than multiple sources to simplify their supply chain.

Figure: Recent shipments



Sector jargon aside this gives a flavour of the engineering technology moat that McCoy possesses. Over a century of engineering expertise and decades in the oil and gas industry at the very least give it a level of oligopoly protection. Combined with the digital products outlined later we think this gives the company an exceptionally strong positioning.

References:

Smallcap discoveries: <https://www.youtube.com/watch?v=NCcb2OtUJYo>
<https://www.mccoysglobal.com/products-and-services/>

4.1.3. Drilling in the Cloud

McCoy Global’s Digital Transformation with their Cloud Platform

As can be seen from the product line up above, McCoy has been known for its manufacturing of tubular makeup technologies up until recently, but it has now embarked on a digital transformation journey. This transformation is centered around harnessing the power of cloud

technology to convert their existing products into Internet of Things (IoT) devices. This shift is not only a strategic move to maintain McCoy Global's industry leadership but also an innovative step to redefine operational safety and efficiency in the oil and gas sector.

The challenge that McCoy Global faced was in transcending its conventional role of producing capital equipment for the oil and gas industry. The company foresaw the potential of integrating IoT with their product line, specifically aiming to make drilling-related data accessible via a cloud-based platform. This foresight was driven by the potential to reduce the necessity of onsite experts during drilling operations, thereby cutting operational costs and enhancing efficiency². McCoy Global's strategic vision aimed at leveraging digital technology to mitigate the risk of becoming obsolete in an increasingly digital world and to set new benchmarks in safety and cost-effectiveness.

Strategic Partnership and Solution Implementation

In addressing this challenge, McCoy Global strategically partnered with World Wide Technology (WWT) to leverage their expertise in cloud and IoT technologies. This partnership was critical for McCoy, given WWT's proven track record in handling large-scale IoT projects and their ability to rapidly develop custom applications. McCoy's decision to utilize Amazon Web Services (AWS) for their cloud infrastructure was pivotal, considering AWS's leadership in serverless architectures and McCoy's prior familiarity with AWS services.

The architecture of McCoy's cloud platform was meticulously crafted using four essential AWS tools. AWS IoT Core was instrumental in enabling secure and scalable connections and management of IoT devices. AWS Lambda facilitated efficient data processing, crucial for both data ingestion and display in the application. Amazon API Gateway was employed as the backbone of API management, and Amazon DynamoDB provided high-performance data storage. This architecture was not only robust and secure but also very scalable, aligning costs with demand and thereby optimizing resource allocation.

Innovative Cloud Portal and Agile Development

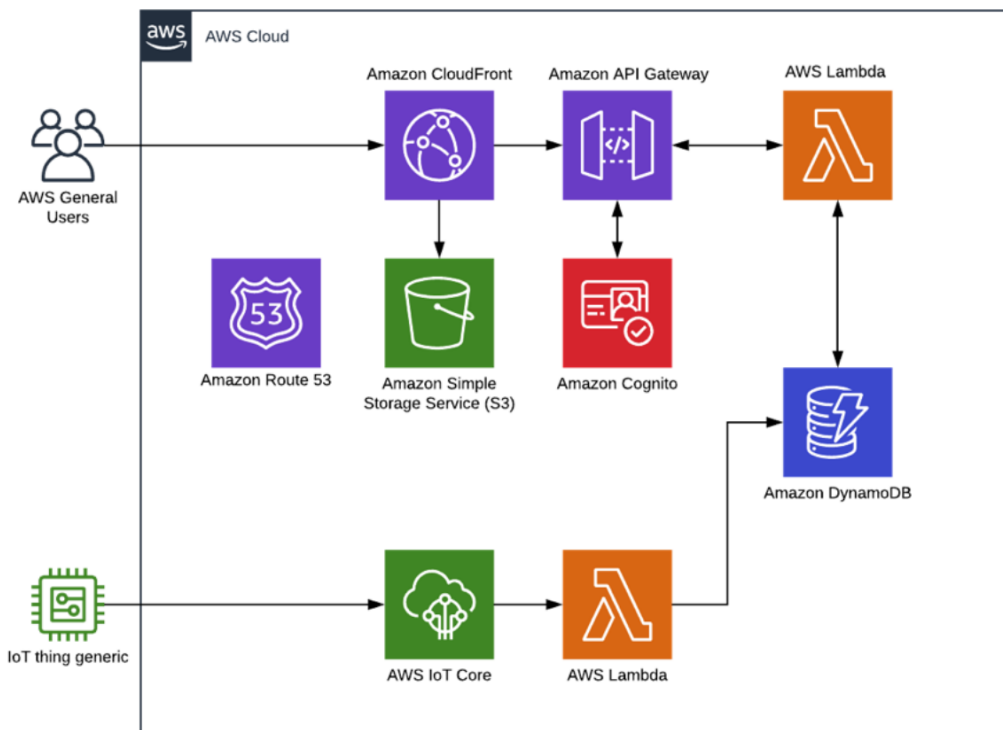
The development of McCoy's cloud portal was a collaboration between McCoy Global and WWT. The application of agile methodologies allowed for the breakdown of the project into manageable, iterative components. This approach enhanced the efficiency of the development process, enabling the swift rollout of a user-friendly web application. The portal boasts features for real-time data viewing, data sharing, customer-to-expert chat, and historical data capture, all critical for efficient remote monitoring and consultation.

² An odd coincidence: I came across a drilling expert while traveling who was being asked to consult on the preparation of a well, well pressures, and the intricate details of barrel per day (bbl) measurements, along with analyzing data which involved assessing the performance and potential yield of the oil well.

Financial Implications and Future Prospects

The deployment of McCoy Global’s cloud platform and portal has had a transformative impact, significantly reducing the necessity for onsite expertise during pipe connections, thereby driving down operational costs. This shift not only presents immediate financial benefits but also positions McCoy for future growth. The scalability and flexibility of their digital infrastructure provide a strong foundation for exploring various automated, data-driven decision-making scenarios in the future. McCoy’s forward-thinking digital strategy, combined with their proven industry expertise, makes them a compelling prospect for investment, especially considering the ongoing digital revolution in the oil and gas sector.

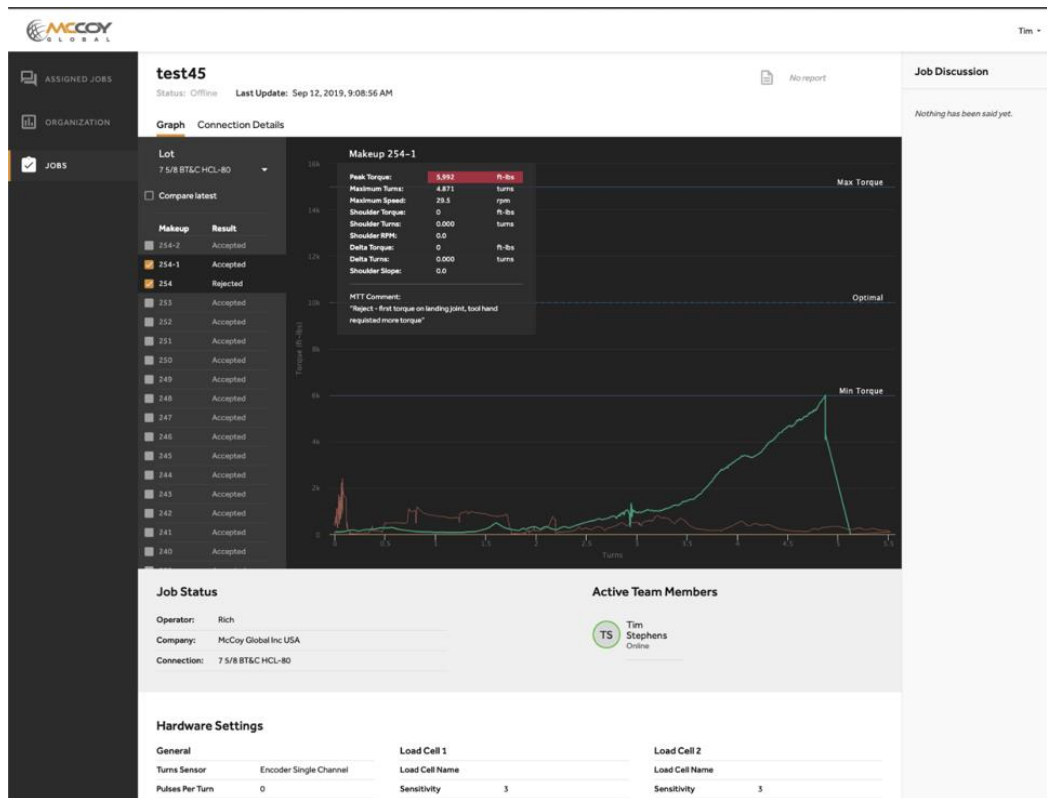
Figure: McCoy AWS Cloud



Architecture for the McCoy cloud platform on AWS.

Note that the implementation of these cloud offerings linked to machinery on the drill-site is in essence an Internet of Things use case. Leveraging this in the future could become a powerful business driver for McCoy.

Figure: Drill Job Dashboard



References: <https://www.wwt.com/case-study/mccoy-global>

Figure: Data Capture VTR Product Page

VTR STANDARD

is included with every MTT purchase (free of charge)

- Unlimited Cloud Based Data Storage of all Job Data
- Live Access to 'active' Jobs
- Access to all historical Jobs from any Location – online
- Access to Calibration info
- Fleet (Asset) Management
- Role Base Users access
- Online Connection Library
- MTT System Monitoring of Assets (on/off)

VTR PREMIUM

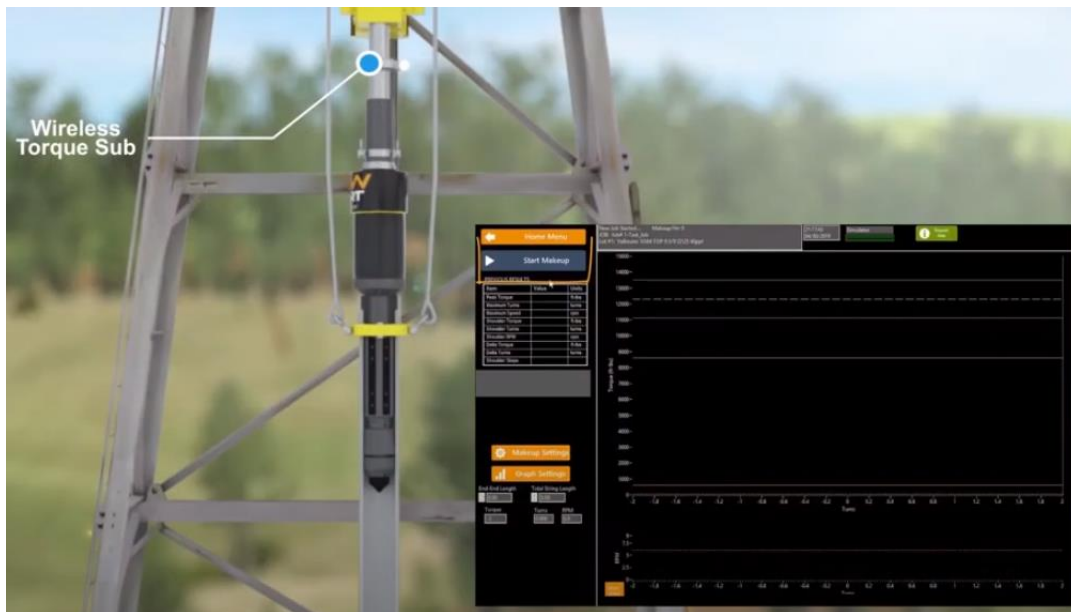
Is a Subscription to software that enables MTT system to perform additional functions, like:

- Remote control of LIVE job, including, but not limited to job editing, data interaction, hardware settings, communications to operator etc.
- Online Ability to setup jobs
- Ability to share LIVE Jobs and Completed Jobs to Other Organizations
- Key Metrics (Job stats for machine / fleet / operator) – derived from data
- Autonomous Evaluation of Graphs (Coming Soon)

The VTR connects to the McCoy's MTT Torque systems remotely³, so this could potentially be operated anywhere in the world and connect to any rig in the world (even from an expert's phone in a coffee shop). It uses low bandwidth reducing the possibility of connectivity issues. Data for the current or multiple jobs are captured in the cloud and can be reviewed by the offsite expert whenever required. This data allows the user access to all historical jobs and can give information on how connections are being made and a huge array of other statistics. This is stored in a secure MTT cloud portal by McCoy (with backups) removing the need for large data transfers.

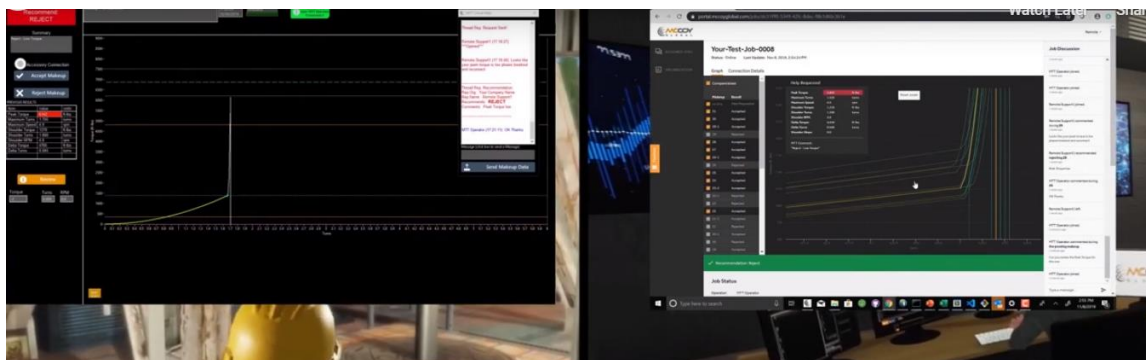
³ For example, see: <https://www.mccoyglobal.com/products-and-services/tts-data-sub-with-mtt-torque-turn-software-for-casing-running-tools/>

Figure: Torque Turn System – MTT™



Given progress in the last few years in Machine Learning and AI techniques this would also give McCoy a huge dataset that can be used to enhance the software that automates these processes. Imagine an “expert” that had worked on every drilling operation ever performed and that had learned from every data point from all the associated connections. How much would that increase efficiency and speed of completing wells and all other associated mechanical tasks. This also it goes without saying, further reduces costs and the dangers posed to human beings at drill sites.

Figure: Job Monitoring Demo



Reference:

<https://www.youtube.com/watch?v=C3UkfuZVnBY>

4.1.4. Parts, Accessories, Dies and Inserts

This is the aftermarket business of McCoy. For the equipment sold, many parts wear out and are put through a lot of wear and tear when being used. Think of this as the razor blade part of their razor business model. This part of the business is estimated by the company to be 40% of the cost of tools sold, so that for each \$1 of tools sold, 40c will return as aftermarket parts purchases. The margins for this part of the business are also high, because the mark up of individual parts is higher than for the combined parts contained in a tool.

5. Oil Well Safety

5.1. Safety Statistics

It's clear that the theme that runs through all the above products is safety and versatility. The company has stressed many times that many of the new products it is developing are with automation in mind so that fewer people are required overall to set up and run a drilling operation and that people are removed from the most dangerous areas such as the floor of the oil well operation.

The imagery of a drilling derrick moving up and down belies the immense forces and potential dangers involved in the process. These visuals often do not capture the full extent of the risks and mechanical power at work on an oil rig. If anything goes wrong in a drilling operation it can be extremely dangerous. Types of common accidents include:

Equipment Failure: This can occur due to the high-stress environment of drilling operations where machinery is subjected to intense forces and rotational speeds. Equipment failures might involve blowout preventers, drilling rigs, or other critical components, leading to loss of control over the well, spills, or even explosions.

Blowouts: A blowout is an uncontrolled release of crude oil or natural gas from the well, usually caused by a failure in pressure control systems. This can lead to fires, explosions, and significant environmental damage.

Falls and Slips: The rig floor and other areas in a drilling operation can be slippery and dangerous, especially when dealing with oil, mud, and water. Workers are at risk of slipping, falling, or tripping, which can lead to serious injuries.

High-Pressure Lines and Equipment: The high pressure used in drilling operations can lead to equipment ruptures or failures. Workers are at risk of being struck by high-pressure lines or equipment, which can cause severe injuries or fatalities.

Explosions and Fires: The combustible nature of oil and gas can lead to explosions and fires, especially if there are gas leaks or if flammable vapors are not properly controlled.

Pipe Handling Injuries: Handling drill pipes, casings, and other heavy equipment can lead to crush injuries, pinched fingers or limbs, and back injuries, especially if the handling is done manually.

Exposure to Harmful Substances: Workers can be exposed to hazardous chemicals and gases during drilling operations, which can lead to respiratory problems, chemical burns, and other health issues.

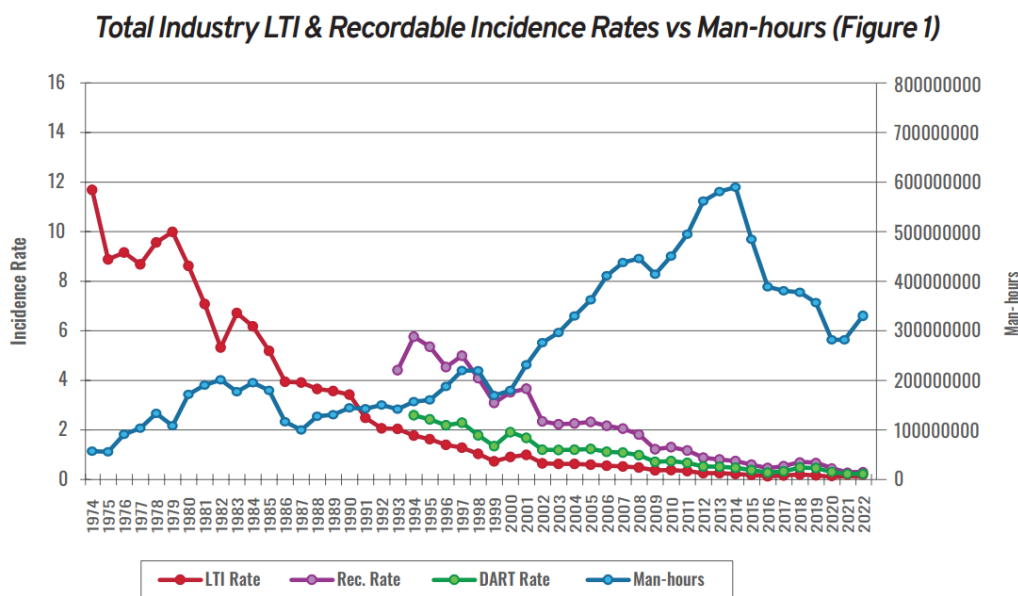
High Pressure and High Temperature (HPHT) Incidents: Operations in HPHT environments are extremely challenging and can lead to equipment failures or loss of well control, resulting in dangerous situations.

Struck-By/Caught-In/Caught-Between Accidents: Workers are at risk of being struck by, caught in, or caught between equipment, especially during rigging operations or when moving heavy equipment around the site.

These risks underscore the importance of McCoy Global's focus on automation and safety in their product development. By leveraging technology to minimize human interaction with potentially dangerous equipment and operations, they are significantly reducing the likelihood and severity of these common types of accidents in drilling operations. This proactive approach to safety is not only crucial for protecting workers but also for ensuring the overall efficiency and sustainability of drilling activities.

The CEO has stated that they aim to be able to reduce the number of drilling personnel from typically 8 to 2-3 for drilling operations using this equipment and related cloud and IoT technologies (see the Paul Andreola interview with the CEO below). This is a key part of the business strength of McCoy, because even if industry-wide drilling operations reduce, customers are likely to increase the purchase of their equipment to drive down costs and improve safety.

Figure: Drilling Contractor Accident Rates⁴



Source: IADC ISP Program 2022 (International Association of Drilling Contractors)⁵

LTI Rate: The Lost Time Injury Rate is a safety performance indicator that measures the number of lost time injuries occurring in a workplace per a certain number of hours worked, typically per 1,000,000 or 100,000 man-hours.

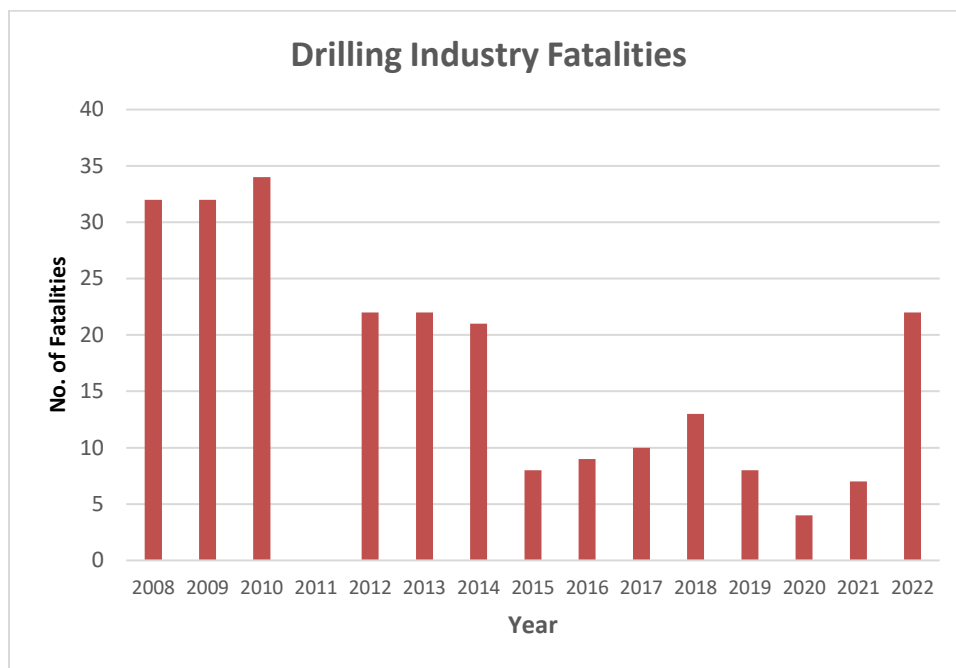
REC Rate: The Recordable Incident Rate refers to the number of recordable workplace incidents per a set number of man-hours worked (usually 100,000 or 200,000).

DART Rate: The DART Rate measures the number of incidents per 100,000 hours worked that resulted in days away from work, job restrictions, or job transfers due to work-related injuries or illnesses.

⁴ Apologies for the use in this reference of “Man-hours”. The oil industry needs to catch up with the “Me too” movement.

⁵ Incident Statistics Program: <https://iadc.org/health-safety-environment/incident-statistics-program/>

Figure: Drilling Contractor Fatalities



From these charts we can see that the accident and fatality statistics have been steadily improving, but there was a rise in 2022. Further progress by using technologies and machinery from companies like McCoy could reduce this by reducing the numbers of staff or contractors in dangerous areas of oil drilling operations.

5.2. The Red Zone

The concept of the "Red Zone" on oil rigs is a critical aspect of understanding the dynamics and risks associated with working in the oil and gas industry. The area denoted as the Red Zone on an oil rig is where the heavy machinery operates, and the risk of injury is highest. This area is typically characterized by the presence of heavy machinery, active equipment, and operations that require close human interaction with potentially hazardous elements. Most of the technology that McCoy produces is aimed at reducing the number of people that need to be in the Red Zone. As mentioned previously the CEO has estimated that this could be reduced from 6-8 people to 2-3 people.

Characteristics of the Red Zone

- 1. High-Risk Area:** The red zone is usually in close proximity to active drilling operations, heavy machinery like the drawworks, the rig floor, and areas where lifting operations occur. It's a dynamic environment where heavy equipment is constantly

moved and operated. The drawworks play a central role in the operation of a drilling rig, particularly in the handling and manipulation of the drill string, which is a key component in the drilling of wells for oil and gas extraction.

2. Presence of Heavy Machinery: Oil rigs are equipped with large, powerful machinery such as drill pipes, hoists, and cranes. The red zone often encompasses the areas where these machines operate, making it a hotspot for potential accidents.

3. Complex Operations: Drilling operations involve a series of complex tasks that require precision and coordination. This complexity, coupled with the physically demanding nature of the work, can lead to a higher risk of human error in the red zone.

Why is the Red Zone Dangerous?

1. Potential for Equipment-Related Accidents: The heavy machinery used in drilling operations can be hazardous. Workers in the red zone are at risk of being struck by or caught in-between moving parts of machinery.

2. Physical and Mental Fatigue: The demanding nature of work in the red zone can lead to physical and mental fatigue among workers, increasing the likelihood of errors and accidents.

3. Exposure to Hazardous Materials: Workers in the red zone may be exposed to hazardous materials, such as drilling fluids and gases, which can pose serious health risks.

4. Environmental Factors: The red zone is often exposed to harsh environmental conditions, including extreme weather, which can exacerbate risks.

5. Limited Space and High Activity Level: The red zone can be a cramped space with a high level of activity, making it difficult to maintain awareness of all potential hazards.

Statistics and Observations

While specific statistics may vary, it's often cited that a significant majority of accidents on oil rigs occur in the red zone. This high percentage can be attributed to the concentration of risks and hazards in these areas. The nature of the work, combined with environmental and operational factors, makes the red zone particularly prone to accidents.

Mitigating Risks in the Red Zone

To reduce the number of accidents in the red zone, oil companies implement various safety measures, including:

- 1. Strict Safety Protocols:** Enforcing rigorous safety protocols and regular safety drills can help in preparing the crew for emergency situations.
- 2. Use of Automated Technology:** Integrating automated systems to handle some of the more hazardous tasks can reduce human exposure to dangerous situations.
- 3. Regular Training and Drills:** Continuous training and safety drills ensure that workers are well-prepared and aware of the best practices to avoid accidents.
- 4. Enhanced Supervision and Communication:** Effective supervision and clear communication are key to managing the risks associated with the red zone.
- 5. Personal Protective Equipment (PPE):** Ensuring that all workers are equipped with the necessary PPE can significantly reduce the risk of injuries.

In summary, the Red Zone on oil rigs is a high-risk area characterized by the presence of heavy machinery and complex operations. The danger in this zone is compounded by factors such as physical and mental fatigue, exposure to hazardous materials, and challenging environmental conditions. To mitigate these risks, oil rigs implement strict safety protocols, training, and increasingly, automated technology. Despite these measures, the red zone remains a focal point for safety efforts in the oil and gas industry.

Paul Andreola interview with Jim Rakievich:
<https://www.youtube.com/watch?v=kQwZx4a8NCw>

6. Management

Jim Rakievich became President and CEO of McCoy Global in 2002. Since that time McCoy has expanded its global reach, particularly expanding into the Eastern Hemisphere. His tenure has also been characterized by key strategic acquisitions and the introduction of innovative product lines, positioning McCoy as a provider of technical solutions and services for the global energy market.

Jim Rakievich, has over 30 years of senior management experience, and has been an instrumental figure in the oil and gas industry (see below for his other board positions within the

industry). He currently owns 3.3% of the company, or 5.5% if restricted shares and stock options are included. Given the size of the company this is not an insignificant amount and should align his interests with those of shareholders.

Before ascending to the top position at McCoy, Rakievich held the role of Vice President of Service from 1999 to 2001, followed by a stint as the company's Chief Operating Officer between 2001 and 2002. His career prior to joining McCoy was also notable, with a significant period spent as a Regional Manager at Kleysen Transport Ltd. in Alberta, a role he held from 1987 to 1996.

In addition to his roles within McCoy Global, Rakievich holds positions on the boards of several other companies, illustrating his broad influence in the industry. He serves on the board of Cougar Drilling Solutions, Inc., McCoy Global UK Ltd., and Snubbertech, Inc. These positions allow him to contribute his expertise and insights to a wide array of business operations within the company.

<https://www.marketscreener.com/business-leaders/James-Rakievich-062SZ9-E/biography/>

<https://wallmine.com/tsx/mcb/officer/2017305/jim-rakievich>

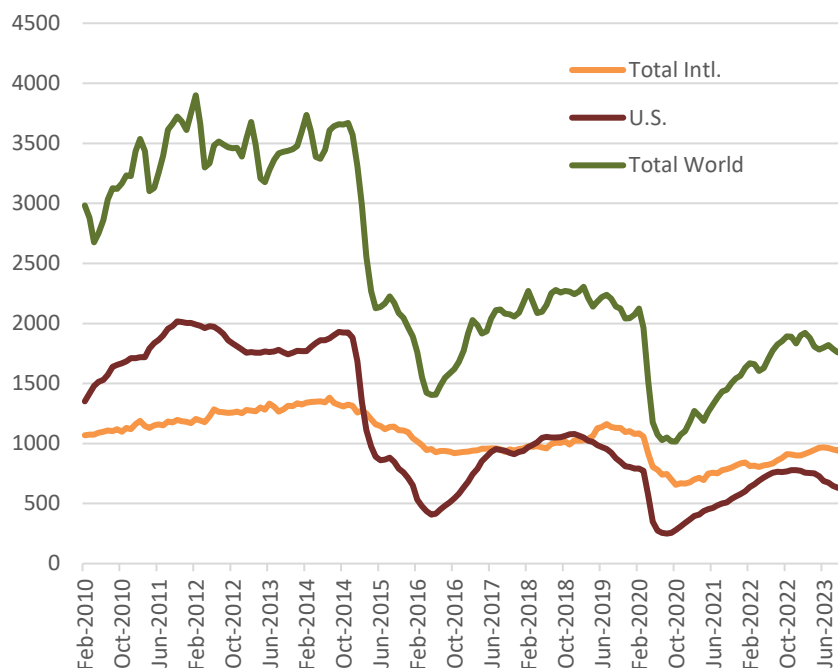
<https://www.mccoyglobal.com/directors-and-officers/>

7. McCoy Growth

7.1. Rig Counts and Completions

At the simplest level, historically the revenue and performance of McCoy Global was driven by rig counts, particularly in the US, which in turn is driven by oil prices. The rig counts have been a leading indicator for the business. Since 2016 the sensitivity to rig counts in the US has been mitigated by a global diversification into the Middle East and other markets which should insulate McCoy from the kind of shocks to rig counts seen in 2016.

Figure: US and International Rig Count



The rig count above⁶ shows that the drop was smoothed out in the rest of the world, although there was still decrease, and so this diversification should smooth out volatility going forwards. More importantly, though, the reduction in costs at McCoy global after this period has made the business much more efficient and resilient.

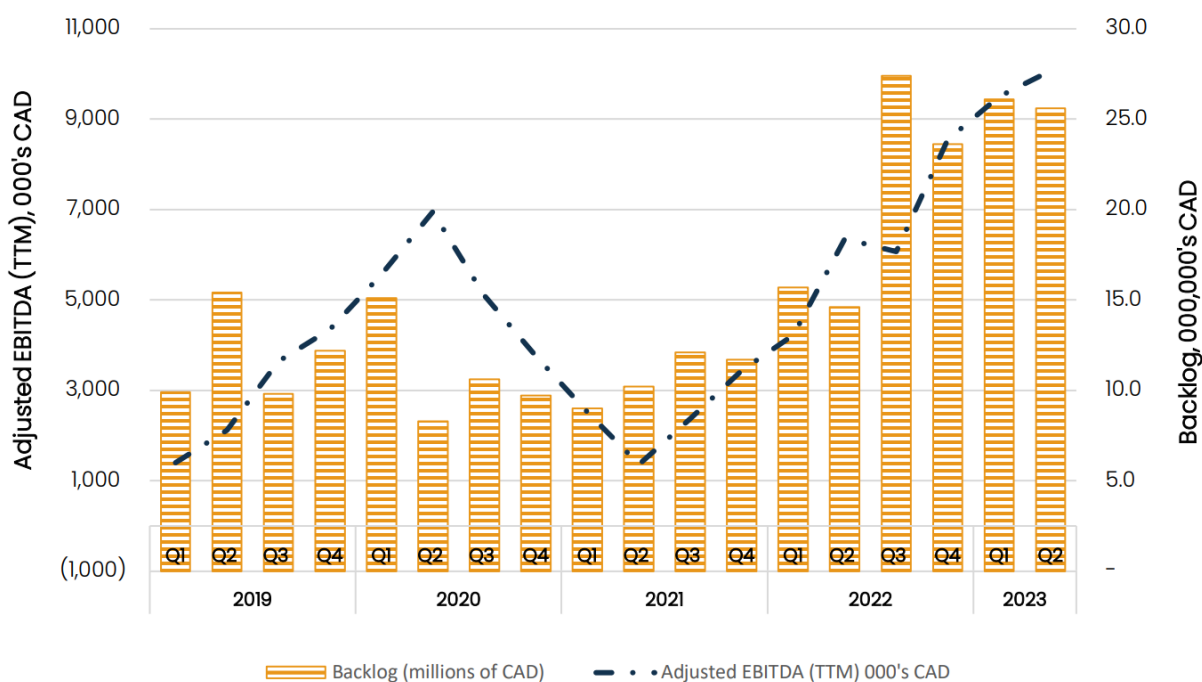
Rig Count: This refers to the number of drilling rigs actively exploring for or developing oil or natural gas in a given region at a specific time. The rig count is often used as a proxy for the level of activity in the oil and gas sector. Higher rig counts generally indicate more exploration and production activity, suggesting an expanding industry, while lower counts can indicate a contraction.

Rig Completions: This term refers to the completion of the drilling phase of a well and the transition to the production phase. Completion involves the process of making a well ready for production after drilling has reached the total depth. This process includes casing, cementing, perforating, and hydraulic fracturing (if needed), among other steps. It is worth noting that it is getting harder to supply the high level of oil demand globally, and that even to maintain current oil production levels there will need to be a lot more exploration and rig completions.

⁶ From the Baker Hughes rig count statistics: <https://rigcount.bakerhughes.com/intl-rig-count>

7.2. Addressable Market

McCoy has estimated in company presentations that the TAM for their sub-segment of the market is at \$1 billion currently (although this estimate appears to be more closely related to the SAM). This compares to the current revenue for the company of \$68 million (TTM). For comparison purposes to their customers, Transocean Ltd. Capex for the last nine months of 2023 was \$207 million, and for Helmerich & Payne for the full-year end September 30 was \$396 million. The CEO has stated that their realistically achievable addressable market (SOM⁷) is over half a billion dollars and that the total global tubular running services market is \$2.5 - \$3.0 billion including offshore and land⁸.



<https://www.woodmac.com/news/the-edge/bull-market-oil-rigs-signal-slower-transition/>

The company often shows this chart on presentations and slides, and it is a useful one. Forgive us for their usage of EBITDA on the chart, but feel free to see that (temporarily) as a proxy for profitability. The backlog can be viewed at least two ways and does not necessarily represent a mirror of future profitability. It is a measure of orders not delivered, which is a combined measure of many factors including ability to fulfil orders quickly combined with demand. In previous years the company touted a reduction as evidence of improved operating efficiency,

⁷ SAM, Serviceable Available Market; and SOM, Serviceable Obtainable Market. SOM being a subset of SAM.

⁸ See the smallcap discoveries interview for a further discussion on the Total Addressable Market (27 mins).

which is likely true, and aligned with that we would be cautious to assign too much correlation to future profitability.

But as a very broad brush the chart does show that there is a trend of increasing backlog that does also correlate with financial figures we see in their income statement. Revenue and income has increased in line with this. Which combined with the earlier discussion of reduced costs we think is indicative of higher revenue in the near future.

McCoy's recent financial reports show that the company has improved results, with increased gross margins and reduced production costs and marketing expenses. Revenue has bounced back from the trough in 2020, and COGs (%), Sales, Marketing and Research costs have declined. This has led to an increase in the gross profit over time and this has flowed down the income statement to EBT and now net income. The company has been profitable for over two years now and the increasing growth in revenue is starting to show in the bottom line. Given the increased efficiencies from operating costs and size as the business grows, the remaining question is how quickly and how far the business can grow sales and revenue.

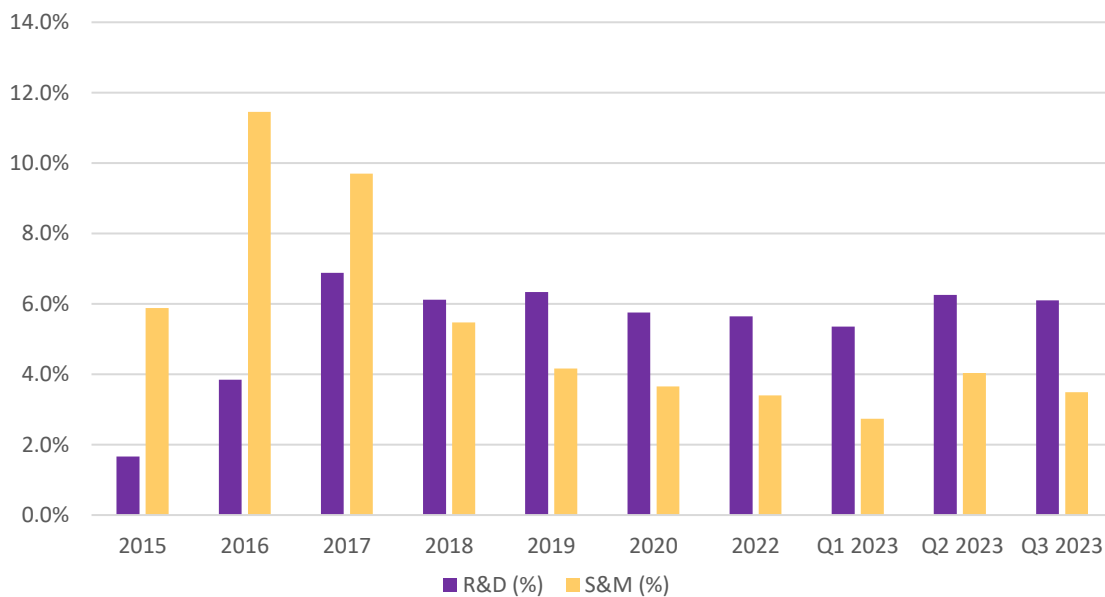
Figure: Going After \$1 Billion in Labor Cost Savings



As mentioned earlier McCoy estimates the TAM for the energy drilling operating to be \$1 billion, there is clearly a lot of room for growth in this market for McCoy and they have achieved very good growth in the last few years, as a long period of investment, cost efficiencies, and technological progress begin to bear fruit.

Sales and marketing as well as Research and Development costs were high in the 2015 to 2018 period as compared to now (measured as a percentage of revenue). Although they have expanded sales since 2016 in the Eastern hemisphere and so the absolute figures have increased, the sales and marketing as a percentage of revenue has decreased since 2016. S&M expenses decreased from a peak of 11.5% in 2016 to around 3.4% today. That difficult period spurred the company to make a number of internal operational and financial efficiency improvements that are now benefitting the company given the benefit of newer technology (another example of good leadership from the management of the company).

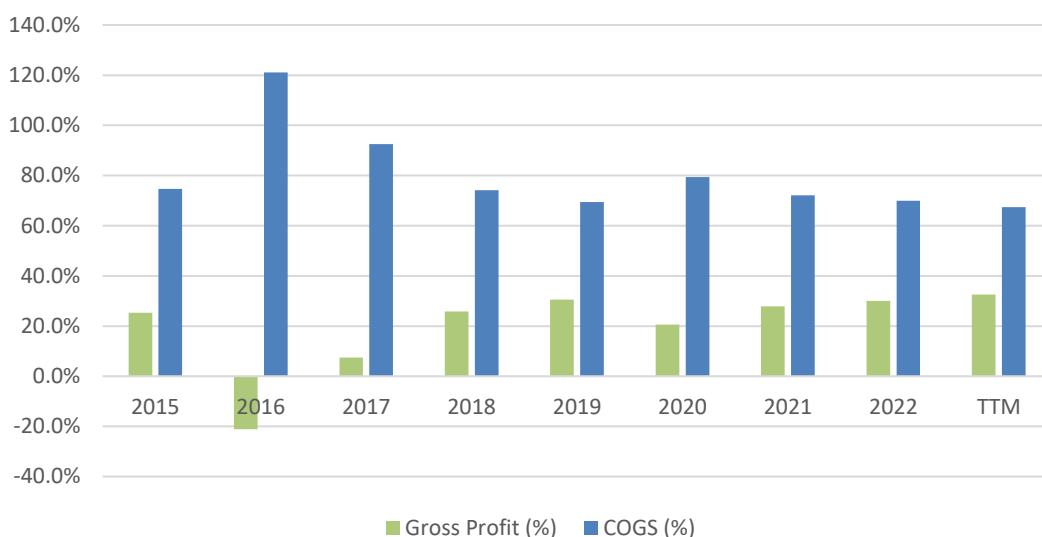
Figure: S&M and R&D Expenses



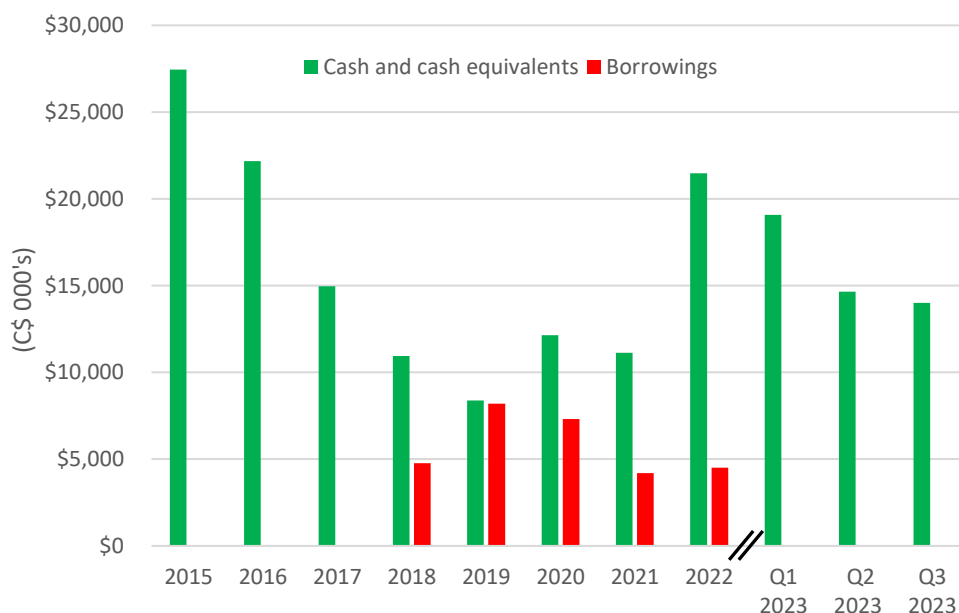
The chart above shows the S&M and R&D expenses over the last few years. We think the business is likely to be more profitable in the coming years than in the past based on this improvement. Although the above chart looks (and is) significant, these improvements from the operational side are smaller than those from a cost of sales perspective of business expenses. The following chart shows the huge change in the cost of manufacturing their products, reflecting the

change in mix of products as well as outsourcing of elements of the manufacturing. This also shows the resulting increase in gross margins over this period.

Figure: Gross Profit and COGS



The chart below shows the cash and debt position of the company. The company’s cash levels fell after the unprofitable 2016 period, combined with additional expenditures on growth and cap ex in the business. Subsequently, borrowings have been paid down to zero and cash levels have increased. Although there has been a decline this year to date, much of that is due to share repurchases. The company has a lot of flexibility given these cash levels, which are the highest for many years, combined with increasing free cashflow generation.



7.3. Cost Cutting and Efficiencies

In 2017, a strategic focus of McCoy was to deliver significant operational efficiencies and re-align the Corporation’s cost structure to a lower revenue environment. The execution of several restructuring initiatives resulted in a reduction to McCoy’s overall cost structure, a shift to a more agile operating model with flexibility to better scale up and down with demand and an operating structure that requires lower capital expenditures to support. This was the result of several decisions and included:

- (i) the consolidation of McCoy’s production in two production centers; wellbore construction products in Louisiana, USA and data acquisition products in Texas, USA. This resulted in the closure of the Corporation’s Edmonton production facility in the fourth quarter of 2017;
- (ii) the transition of the Corporation’s production model to an assembly only model (with the exception of the Corporation’s die and insert product line). The shift away from in-house manufacturing will result in a lower production cost structure and reduced capital expenditures; and,
- (iii) the consolidation of McCoy’s Eastern Hemisphere operations in the UAE in the first quarter of 2018. McCoy will continue to support the European and Asia Pacific regions with a lower cost structure model.

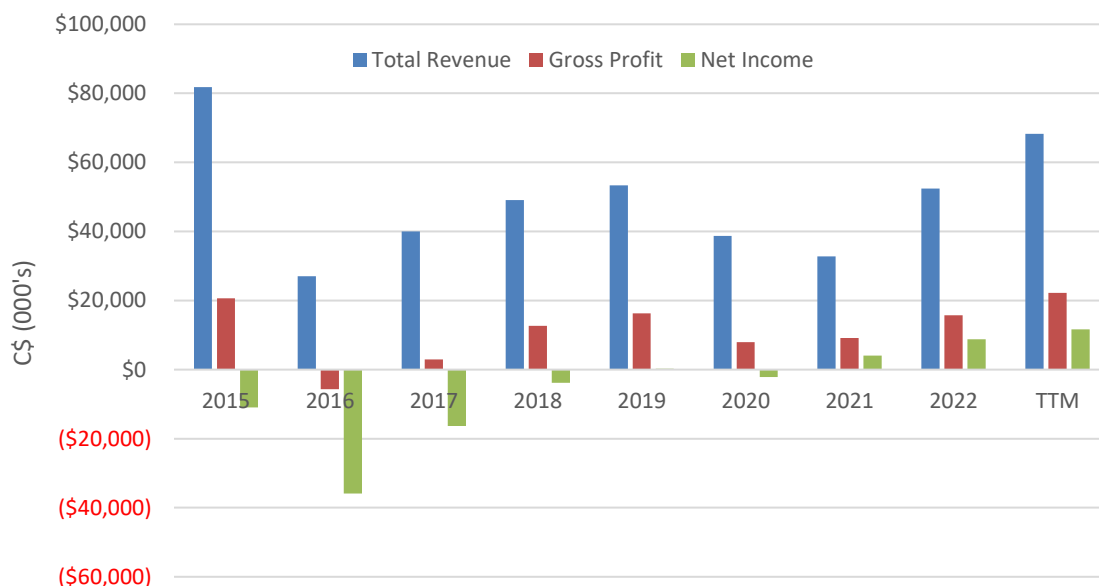
Prior to this point McCoy had been, for many years, divesting of non-core engineering facility and production. Earlier we mentioned in the history section that they had divested of their

original spring and axle works in 2003. In 2011 they divested of additional non-core Vac & Hydrovac and Prairie Truck and Trailer divisions and asset interests. They divested their hydraulics and coatings business in 2014 to become completely focused on tubular products and services (now primarily drilling).

In the years since they have consolidated product manufacture and reduced the number of facilities as well as switching from an in-house manufacture to assembly line model. This reduces the range, volume and complexity of manufacture whilst allowing them to source components from external suppliers.

As discussed elsewhere we see that there has also been a switch to focus on higher technologies. This includes the purchase of 3PS and DrawWorks and the development of their cloud offering in conjunction with World Wide Technology.

Figure: Income Growth



The above chart shows some of the key lines from the income statement for McCoy. The effect of the 2016 period can be seen, followed by Covid impacts in 2020. But through this period the overall growth in revenue of the company can be seen and now in the last few years the recovery all the way down the income statement is apparent. The company has shown an increasing level of profitability for the last few years.

7.3.1. Recent Acquisitions

3PS Acquisition

McCoy purchased 3PS from a subsidiary of Pason Systems for US\$6.1 million in 2017 which including the company, land and buildings. After three years they decided to execute a sale and leaseback transaction for the Cedar Park, Texas production facility for proceeds of C\$9.0 or US\$6.7 million. The facility had doubled in value since the purchase. This in effect has meant that the 3PS acquisition cost the company less than nothing. This contributed to the current healthy cash balance we see at the company.

3PS is another technology company that complements McCoy's offerings, because it produces sensors, systems and services for a variety of industrial applications to collect data in harsh environments (now pivoted to focus on drilling). This includes the Torque and Tension Sub (TTS) technology that can now be operated from the cloud. This acquisition enabled McCoy to enhance their data collection technologies and has become a key part of their digital growth plan. The company was a key competitor of McCoy at the time.

DrawWorks

McCoy purchased DrawWorks in October 2019 as part of its long-term strategic technology initiative. The company develops tubular running services including CRT and was a competitor to McCoy up until that point. This gave McCoy a lot of IP to allow McCoy to advance from hydraulic power tongues to CRTs. DrawWorks is based in Boling, Texas and so also complemented the existing business geographically. Later the Virtual Thread Rep technology was developed on the back of the technologies acquired and developed with these company acquisitions.

Future Developments

The company has developed a range of smart products and a lot of these products have been put together to develop a fully automated solution. This is now being tested with a partner in Pennsylvania. The company CEO says that they aim to have the first fully automated solution for casing running technology operational and ready for sale before the end of the year. Now the company is working on market adoption of these technologies.

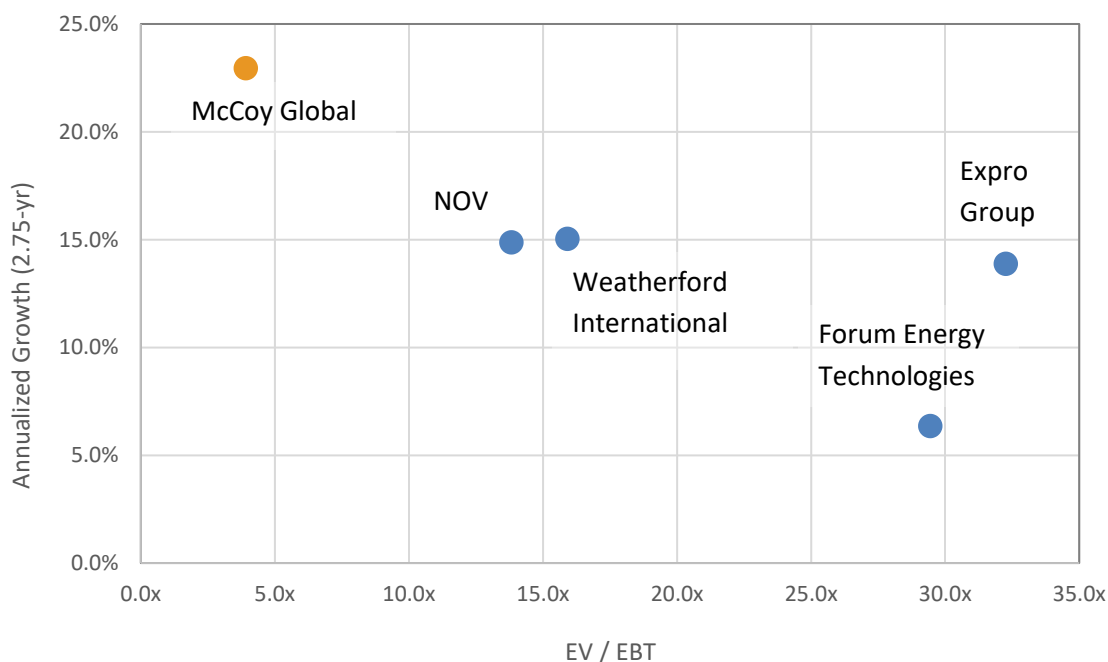
7.4. Competitive Landscape

List of key competitors (some of whom are also customers) and some financial data. Many are much larger than McCoy Global and so not directly comparable, but their businesses overlap with McCoy.

Name	Mkt Cap (US\$)	EV / Sales	Rev Growth (2.75 yrs)	EV / MV
NOV	\$7.5 billion	1.03x	15%	1.1x
Weatherford International	\$6.3 billion	1.45x	15%	1.2x
Expro Group	\$1.7 billion	0.99x	14%	0.8x
Forum Energy Technologies	\$210 million	0.41x	6%	1.4x
McCoy Global	\$39 million	0.53x	23%	0.7x

The following scatter chart shows a visualization of the valuation and growth of McCoy Global versus some of these other competitors. The annualized revenue growth over the last 2.75 years (11 quarters) against the enterprise value versus EBT. We used the enterprise value to highlight the value from the net cash position that McCoy has whereas the majority of other companies have net debt positions. In addition, EBT was used in order to move slightly up the income statement to more clearly show the relationships here (some of the companies have negative or exceptionally high PE ratios for the most recent period).

Figure: Competitor Valuation Comparison



Some of these companies are much larger than McCoy, such as NOV and Weatherford International which supply larger engineering products and services but combined with some of McCoy Global’s offerings. There are many other companies in this subsector, but they are primarily service and contractors providing drilling services rather than machinery. Two more:

Wellwise Group and Eckel are family or privately owned. Others such as Bauer Group have some overlapping business segments, but their primary business is not in the oil and gas drilling subsector and so were excluded from the above chart.

7.5. Competitors

7.5.1. NOV (formerly National Oilwell Varco)

NOV operated globally across various sectors and sectors of drilling and production. Its Rig Equipment division manufactures and sells land rigs, and offshore drilling packages. The NOVOS™ drilling system also allows some automation of drilling programs. WellSite Services offers a range of wellsite solutions and products including solids control technologies and waste management services.

NOV Completion Tools produces a range of oil and gas customer products for completion that are aimed at improving reservoir performance and production. Some of these products overlap with elements of McCoy's products, but don't offer the range tooling that McCoy does for tongs and other drilling products even though it is a larger company. Being larger their offerings span other areas of the market such as solar technology, carbon capture and geothermal solutions that are not part of McCoy's focus.

7.5.2. Weatherford International

Weatherford is another larger company that is more service oriented. They have a few specific products listed in their Drilling and Evaluation, Well Construction and Completion and Production and Intervention pages. They appear to focus on more general use cases that they would use some of McCoy's products to fulfil, such as those discussed in their Drilling Services and Rental Tools & Services. Weatherford has some in-house products but still sources from McCoy given the larger product range.

7.5.3. Frank's International (Expro)


Another service-oriented company that produces some in-house products, but also sources from McCoy. Frank's International merged with Expro Group in early 2021, to combine expertise in drilling and completions with well access and well flow optimization. In the area in which they overlap with McCoy they offer solutions and services for casing and completion technologies, cementing and drilling, downhole service tools and large diameter tubular and specialty connector supply. Their technology is designed to optimize drilling in challenging environments like extended reach wells and complex formations. They do offer some innovative tools like the

Harmonic Isolation Tool and Drill String Torque Reducer, which are designed to prevent downtime, damage, and losses during drilling, enhancing operational efficiency.

7.5.4. Eckel

Eckel is a private company based in Odessa, Texas, that has a range of product offerings including hydraulic power tongs and hydraulic power units. They design and manufacture their products and have less of a technology focus compared to McCoy. They would be considered a competitor in power tongs and hydraulic equipment, but do not have products that compete with McCoy’s cloud or digital offerings. Eckel has also started to expand globally and so could be considered a true competitor for traditional drilling equipment.

Figure: Competitor Product Matrix

Select Tubular Running Services Equipment and Technologies					
COMPANY	HYDRAULIC POWER TONGS	CRT	DATA ACQUISITION	HANDING EQUIPMENT	DIES & INSERTS
	✓	✓	✓	✓	✓
Competitor A			✓		
Competitor B	✓				
Competitor C				✓	
Competitor D		✓	✓		
Competitor E	✓				
Competitor F	✓			✓	✓
Competitor G		✓			

The names of the competitors above (and whether public or private) are not disclosed, but these are likely to be the usual suspects discussed above. McCoy has the broadest portfolio of products compared to competitors. So, this allows McCoy to automate all of the components in order to complete a well. And in the Eastern hemisphere there is a wider range of required equipment and allows them to use a single vendor allowing efficiencies in terms of servicing. One of McCoy Global’s strengths is that it supplies a complete suite of products unlike most of its competitors. In fact many of the companies that could be considered competitors are actually also customers partly for this reason.

Customers

The company works with a range of service companies, from Halliburton to Baker Hughes to Weatherford to smaller players. See below for the relevant slide from the company presentation.

Many of these companies supply operational services and large engineering equipment (such as an entire rig set up), but use McCoy products to supplement.



8. McCoy Business and Financials

Oil producers and majors have a strong correlation to the oil price (and gas price if they also produce) which creates commodity price risk which we don't usually want to take, but there are companies that have a more indirect linkage to the raw commodity prices such as the oil drilling technology companies. These, including the ones we discussed earlier, have a stronger linkage to the number of oil wells completed and drilled.

There will still be a high correlation here between oil drilling and oil price, but less than 100%. A second factor that we are interested in here is that McCoy Global also benefits from another remove of correlation in that it will still have a strong business benefit for companies when the oil price is decreasing because they are able to help energy companies reduce costs, reduce the numbers of people in dangerous locations, and increase automation. Also, it is worth noting that in a period where the oil price has fallen 30% (from the middle of 2022 to today), the company has increased its revenue by more than 35%.

This is what we find from our research, but we always want to find evidence that backs this up and that is already happening. From this perspective we can review the financials of McCoy

Global and these insights allow us to understand the drivers of the financial numbers from the last 12-18 months that we have already seen.

As we saw in the previous section McCoy is cheap being valued at around 5.5x current normalized earnings⁹. It has recent growth of over 40% in revenues and is gaining market share through its new automated drilling technologies. The balance sheet is now cash rich and this will allow them to perform additional buybacks, continue the dividend, and give them the flexibility to make any strategic acquisitions.

As ever we like to see this occurring alongside the business inflection occurring at a company and that is what we see here in the financial statements. A new dividend policy of C\$0.01 per quarter was announced in Q1 2023 and given the modest amounts so far, cash balances and free cashflow generation there is ample room for buybacks. The company has a share buyback program to buy back 10% of the free float. The company announced in Q3 that C\$2.4 million of shares were bought back in the quarter to complete the normal course issuer bid (NCIB) or over 5.5% of the market cap of the company. This continues the management's history of excellent capital allocation. And as we saw earlier the stock trades very cheaply given its level of growth. The company has also stated that it is now introducing ROIC as a measured target for senior management to guide compensation. They have also set up a capital allocation and strategy committee staffed by senior management.

The labor cost savings slide from the 2023 McCoy presentation (section 7.2) shows many of the key points that we think are important here and are backed up by tangible results. The company has pivoted from its early engineering roots to combine this with a technology focus. The history of many decades of mechanical excellence has allowed it to create more recent products and services that have a digital, automated overlay.

As discussed earlier the company has strong roots in engineering which it will likely never leave completely behind. But it has grown from these roots to the digital and sensor space and now with its cloud offerings, brings higher technology to the industry. Much like hardware/software companies that use the hardware to drive software sales, there is potential here for a combination of the razor blade model (after sales of components that wear out on its products) as well as software-driven products that allow for enhanced operational sophistication, e.g. AI-driven casing and torque control as well as the potential for its huge and growing datasets of drilling operations.

The company has made astute purchases. The 3PS purchase which gave a cash windfall and DrawWorks have given it an accelerated technological edge compared to competitors. Clearly

⁹ We adjust the incomes statement for our estimate of capitalization and amortization of R&D costs.

the management is focused on the right things in terms of driving the business forwards and their niche within the industry. In addition, the behavior of management in weathering previous crises in 2016 and 2020 shows that they are not afraid of making large, swift decisions when necessary and have now put the company in an extremely strong position from a business and balance sheet perspective. We look forward to the progress the company makes in the coming quarters, new products, and their continued delivery.