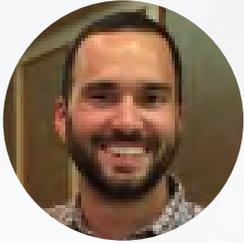




5th Annual Sustainable & Scalable

COST-EFFECTIVE WELL SITE FACILITIES ONSHORE 2018

SEPTEMBER 18, 19 & 20, 2018 | HOUSTON, TX



David Babin

Facilities Engineer & Project Manager

Oxy

David, first of all, its excellent to have you join the 5th Annual Cost-Effective Well Site Facilities Onshore 2018, focusing on making continual improvements and optimizing facilities, while focusing on growth that comes with the 'drill faster' \$70+ oil.

This year we've gone to great lengths to take on delegate feedback, and we're bringing together facilities engineering leaders, with cost-saving and game-changing development capabilities.

David, its great that we have you with us at the event, but in the run-up to the event, what are your views on the biggest facilities design hurdles and design challenges that operators are facing right now?

I believe one of the biggest facilities design challenges that operators are facing right now is minimizing Time-to-Market after new development. As many of us know, drilling rig schedules can change by the day, often moving up the anticipated completion date of a well. When this happens, the procurement and construction schedules are compressed, adding stress and uncertainty to the project that may result in delays and cost overages. I have found myself in this predicament several times, but through collaboration with other business units and widespread searching in the field for needed parts we have been able to successfully build facilities in a fraction of the time thought possible. Occidental is big on collaboration, so we are eager to work together to solve difficult project schedule issues, even across business units.

Now, current market conditions are demanding equipment which is more efficient, and less capital and operational cost intensive. Everyone is talking about optimizing production and maintenance. What is Occidental Petroleum's outlook?

This seems to be a cyclical dilemma in the Oil Industry. In a high oil price environment, the majority of resources at any operator are focused on one thing: drilling more wells. The silver lining to a low oil price environment, where drilling new wells can be less attractive, is that engineering time is freed up to focus on increasing efficiency and reducing operating expenses (OpEx). Much of my time over the past three years has been focused on in-depth review of various programs or systems to determine

if we are doing it the best way possible. Are we optimizing our chemical usage? Do we have any surface constraints that could limit our ability to produce new wells in the future?

With the reduction in drilling throughout the industry over the past several years, operators, suppliers, and service companies have all worked hard to minimize the cost of doing business. With oil prices rising into the \$60-80 per barrel range, I think we will see the hard efforts by operators to reduce costs pay off with higher margins compared to the lead-up to the down-turn when comparing similar price ranges. I'd say the outlook is bright for the exploration and production sector as a whole.

On the question of designing facilities, people continue to wonder if some operators use certain philosophies and certain designs over others and get cost-effectiveness from it while achieving a smaller footprint. What are your views on this?

Using certain philosophies and designs over others to increase cost-effectiveness is a trickier issue. Ideally, an operator would want to standardize as many of their facilities as possible and this is probably easily achievable in green-field developments. A single, standardized method of control would yield better pricing, as instruments and PLCs could be purchased in bulk. Furthermore, automation personnel could be moved all around the asset and still be familiar with the equipment and control philosophy. Unfortunately, for many operators, this is not a reality. Mergers and Acquisitions (M&A) between different companies will always introduce conflicting standards, drawings, procedures, etc. Therefore, the dilemma facing many companies that engage in M&A is whether or not it makes good business sense to update the automation at certain facilities to achieve standardization or maintain two



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separate ways to control facilities. In low oil producing facilities, does it really make good business sense to spend \$100M on a PLC and instrumentation upgrade? What does the payback period of such a project look like?

At Occidental Petroleum, we strive to be responsible environmental stewards by minimizing our operational footprint while still achieve cost-effective results. In the Permian Basin, we employ standard designs for greenfield facilities that help us achieve a minimal footprint while also reducing costs through efficiencies from standardization.

One of the things that's becoming more and more prevalent is emission requirements or emission control. How is Occidental Petroleum strategizing to stay within emissions limits?

"Our Board of Directors has made it a priority to include consideration of greenhouse gas (GHG) emissions and a lower-carbon economy in our strategic planning," (Climate-Related Risks and Opportunities: Positioning for a Lower-Carbon Economy). Occidental has a longstanding policy to seek continuous improvement in resource recovery, conservation, pollution prevention and energy efficiency, including ongoing efforts to recycle and reuse water, and manage and capture methane and other greenhouse gas (GHG) emissions.

Occidental is the largest injector of CO₂ for EOR in the Permian Basin and a global leader in this technology. We are making a significant investment to advance CO₂ EOR as a form of carbon capture, utilization and sequestration (CCUS). These technologies will play an important role to help reduce greenhouse gas emissions by permanently entrapping the CO₂ deep underground.

A few other measures we have taken to achieve lower emissions are replacing diesel generators with electric drives, where feasible, adopting "green completion" practices to capture gas at the wellhead during well completion and prevent its release to the atmosphere, converting pneumatic controls from natural gas to compressed air systems, using Infrared (IR) cameras to help identify leaks and venting, and adopting better control devices to reduce methane emissions.

Who are you most looking forward to hearing from at the conference?

While I do not know any of the speakers currently listed, I am looking forward to meeting them and hearing what they have to say. And I always enjoy hearing presentations by Emerson. Although automation is only a part of what I cover in my typical responsibilities, I love learning about new gadgets and technology, both in our industry and beyond.

What in your opinion are top reasons for why the industry should attend the 2018 conference in September, given the current climate and pace of the industry?

We are in a very interesting period in the oil and gas industry. Oil companies were hiring new grads hand-over-fist around 2013-2014, right before oil prices plummeted. Those newer employees in the oil and gas industry have spent their career so far in survival mode: spend less, identify inefficiencies, and maintain production. I think the Cost Effective Onshore Facilities Conference is a great opportunity for that demographic to find ways to merge their cost-conscious experience with new technologies and techniques to maintain efficient operations when drilling ramps up.

Furthermore, conferences like these that focus on efficiency, new technology, and new regulations are great refreshers, even for the most experienced of engineers.

Without revealing the full details of your full presentation, with 50-100 words can you describe your presentation and how it will help your fellow colleagues?

I will be part of the panel discussing "Economics & ROI of SCADA and Automation." We will be discussing how widespread implementation of SCADA and automation have affected the success of companies. It should be a great discussion; one you will not want to miss!

I am excited to be a part of this year's conference. This is a great time to focus on how to implement cost-effective solutions during a higher oil-price environment. I am really looking forward to learning new techniques to achieve cost-effective operations from the other conference participants as well.

At the The 5th Annual Well Site Facilities Onshore Summit 2018 David will be presenting on an exclusive session to **quantify the dollar impact automation and SCADA has on the bottom line.**

For more information visit www.facilities-design-onshore.com