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HES Assessments of Non-Operated Joint Ventures

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Abstract

Chevron's Operational Excellence (OE) management system is in place to sustain world-class performance across global operations in the areas of leadership, OE culture, process safety, workforce safety, and environmental management. Over the past several years, Chevron has been on a journey to create an enterprise-wide OE culture. Integral to the success of this effort is collaborative engagement with Non-Operated Joint Venture (NOJV) partners.

This paper summarizes the approach Chevron employed to design and implement a process for assessing the health, environment, and safety (HES) capabilities of NOJVs and NOJV operators, which is part of a long-term collaborative effort to support good HES performance.

Problem Statement

How can non-operating joint venture partners understand the HES capabilities of the operating partner, and how can the non-operating partner play a role in promoting good JV HES performance?

The April 2010 BP Macondo well blowout and explosion resulted in a paradigm shift for many in the energy industry due to its magnitude, financial and environmental impacts, and—most important of all—loss of life. It resulted in 11 fatalities, a catastrophic environmental disaster, and billions of dollars in costs related to cleanup and fines. Following this event, many energy companies began to rethink their partner relationships and how to more effectively support operational practices. David Heikkinen, analyst and managing director of Tudor Pickering Holt & Co., observed that: "I think the industry will have to change as far as how joint operating partnerships work."^{*}

Objectives and Scope

NOJVs account for greater than 30% of Chevron's operations. Other major oil companies have similar profiles. Clearly, there would be global benefits to a process designed to reduce the potential for major HES incidents related to NOJV operations.

Chevron made a corporate decision to use a collaborative approach in assessing and managing the risks associated with global business, founded on the belief that it is just as important to understand the HES risks and capabilities of NOJVs as those of its owned and operated assets. The company chartered a team within the HES organization to develop the *Health, Environment and Safety Assessment and Engagement of Non-Operated Joint Venture and Affiliate Companies Process* (NOJV HES Process). Its primary objective is to engage NOJV operators in creating a joint understanding of HES strengths and risks through shared learning and best practices.

The NOJV HES Process was created and documented, laying the groundwork for operator engagement and for informing management of any issues and any resources that may be required to support its objectives. The process provides Chevron

^{*} CNN Money, June 18, 2010, <http://newsle.com/article/0/53701623/>

business units (BUs) with direction and tools for assessing their NOJVs' HES capabilities, as well as for engaging the NOJV operators. It also helps them understand and support execution of HES monitoring, engagement, and reporting duties within the limits of the JV operating agreement.

Process Overview

Engagement with the operator is expected to be an ongoing activity according to the annual cycle in **Error! Reference source not found.** Chevron's NOJV HES Process has four main steps:

1. Prioritize the NOJV inventory list.
2. Assess NOJV operator's HES capability.
3. Create and execute an NOJV HES Engagement Plan.
4. Report progress and update engagement plans.

Step 1: Prioritize the NOJVs

The BU NOJV Representative uses the Engagement Worksheet Tool to assign each NOJV facility an asset tier. Tiers set the priority for assessment and make it possible to highlight assets for which a hypothetical worst-case HES incident could have a significant impact on people (both workforce and public), the environment, Chevron's reputation, or the NOJV's long-term business performance.

Tiers are assigned based on perceived risks associated with the type of asset (**Fig. 2**), and not on the size of Chevron's equity interest in the NOJV. In other words, for purposes of this process, similar types of facilities or operations are prioritized the same way, even when Chevron has very little equity in the one asset and significant equity in the other.

Fig. 1—Ongoing NOJV Engagement Cycle

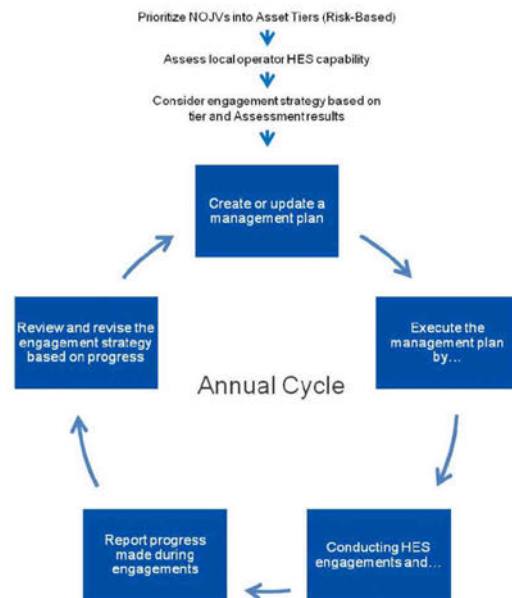
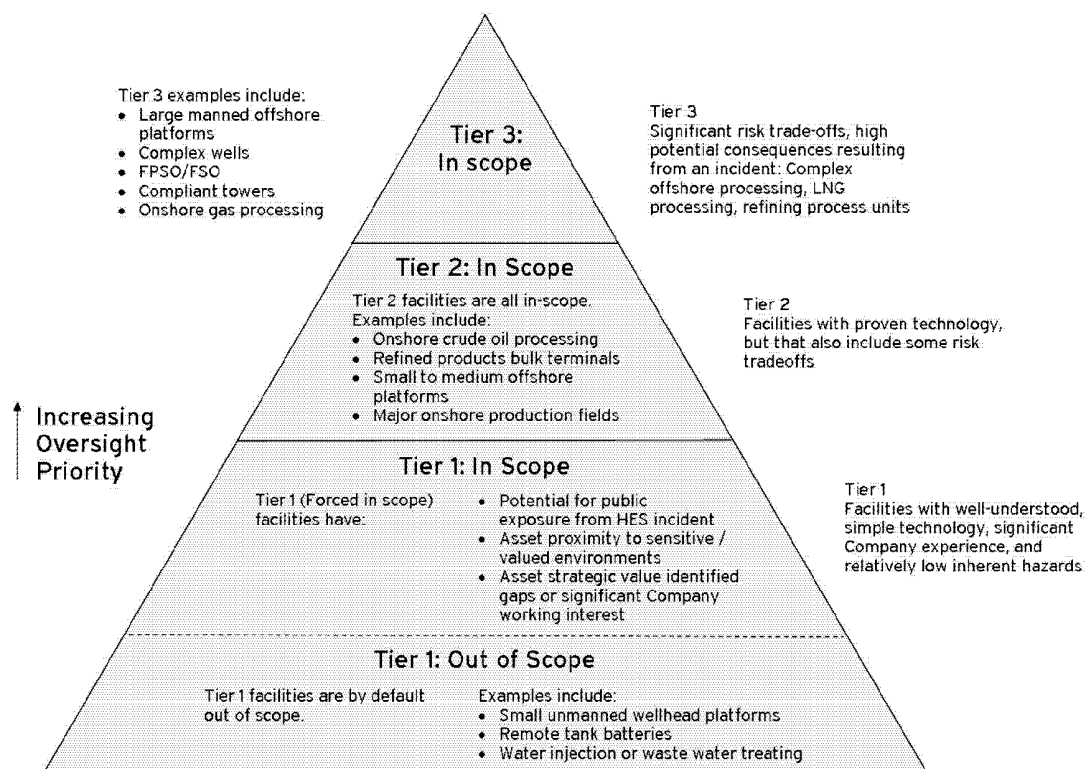
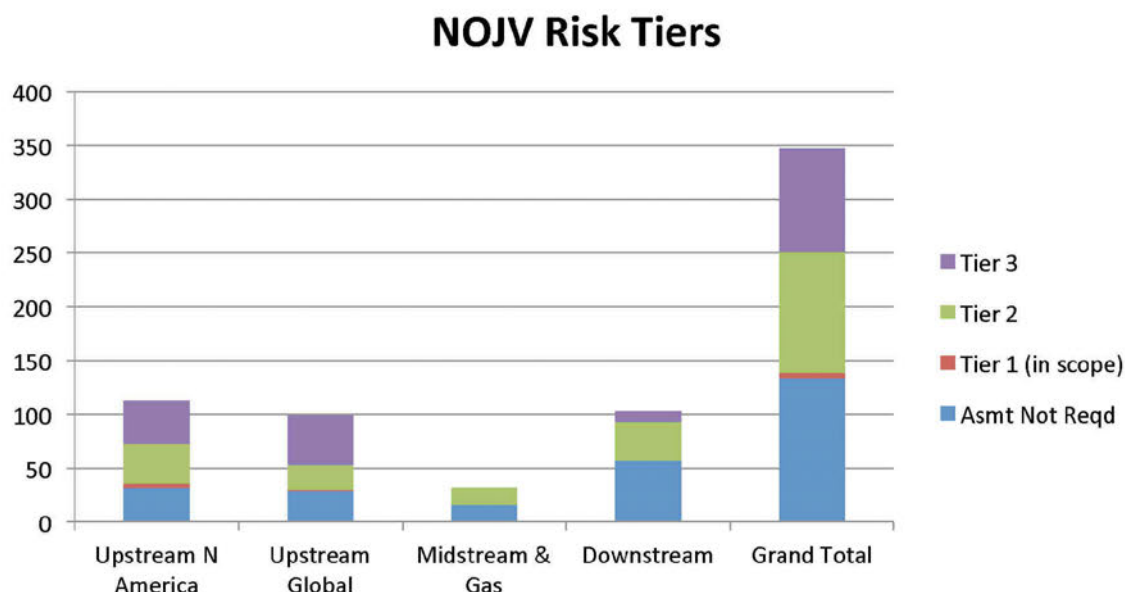


Fig. 2—Facility Tiers and Examples



Tier 3 assets are considered to be at the highest risk and were targeted as the first assessments. Tier 1 assets are generally considered out of scope for Assessment because they are usually low risk and have uncomplicated operations. However, Tier 1 assets can be moved into Assessment scope if they have characteristics that increase the risk for a high-consequence HES incident. Examples include proximity to sensitive or valued environments; strategic value to local, state, or federal economies; or the potential for public exposure to the impacts of a worst-case HES incident. Chevron's current NOJV prioritization results are shown in **Fig. 3** below.

Fig. 3—Chevron's NOJV Prioritization Results



Step 2: Assess NOJV operator's HES capability

The capability of the NOJV operator to manage the NOJV asset in a safe and environmentally responsible manner is an important factor in managing potential HES exposure from NOJV operations. For NOJVs in asset Tiers 1 (in scope), 2, and 3 the process assesses the NOJV operator's HES capability in the Assessment Focus Areas of Leadership and HES Culture, Process Safety, Workforce Safety, and Environmental Management (specifics are listed in Appendix A: Assessment Focus Areas.) The Assessment Focus Areas use as references a variety of Chevron and other industry standards and best practices are used as references; they are not intended to impose specific Chevron HES practices on operators.

Step 3: Create and execute an NOJV HES Engagement Plan

Chevron believes that HES performance can be enhanced when partner relationships are strong, appropriate information is freely exchanged, and both parties are willing to learn HES best practices from each other. Relationships are built through engagement and cooperation. A key output of the NOJV HES Process is an engagement and collaboration strategy called an NOJV Engagement Plan.

The engagement plan ensures the dialog continues beyond the Assessment, and that Chevron and the operator work together to continually learn and support HES performance.

Step 4: Report progress and update engagement plans

Every year, the BUs update their NOJV inventory list and NOJV tiering based on information from engagement activities and progress made during the year. At the same time, they review and update the NOJV Engagement Plan and report progress towards its objectives.

Process Implementation

Implementation of the NOJV HES Process required steps to be taken by both Chevron BUs and the NOJV operators.

Internal: Implementing Within Chevron

Implementation success depended not only on the BUs adopting the NOJV HES Process, but also on taking ownership for implementing and sustaining it year after year. Below are some of the key activities Chevron conducted to promote successful adoption.

Create an Advisory Board comprising representatives of functions across the enterprise

The Advisory Board is responsible for building awareness about the process in its members' respective functions. They help the BUs understand process requirements and associated roles and responsibilities. The board's sustaining roles include: ensuring the process is consistently applied across the enterprise, determining if changes need to be made to the process, and sharing best practices and lessons.

Produce Effective Assessment Facilitator Training

In 2012, a training program was prepared to educate resources at each business unit about the new process and how to implement it locally. The NOJV HES Assessment Facilitator Training Program helps ensure BUs achieve the expected quality and consistency across all HES Assessments. The two-day training course teaches how to plan and lead NOJV HES Assessments according to the following course objectives:

1. Describe the HES Assessment Process, including purpose, benefits, and what success looks like.
2. Prioritize an NOJV Asset.
3. Plan and execute the Assessment Process (including resourcing the team, conducting the site visit, and planning follow-up engagements).
4. Assist in developing the NOJV Engagement Plan.
5. Understand what happens after the Assessment.
6. Know where to access the tools and resources needed to conduct an HES Assessment.

The training is designed as a role-play with the class performing a mock HES Assessment from beginning to end. This training model provides the hands-on practice required to be effective in the field. The Facilitator is considered to be "certified" once he or she conducts an NOJV HES Assessment in partnership with a certified Facilitator. To date, 100 people have been trained and 35 are certified to lead Assessments. Conducting at least one HES Assessment per year and participating in a refresher course every three years keeps the qualified Facilitator status current.

Conduct role-based training to ensure BUs are capable of executing the process

Because Assessment Facilitator responsibilities are to lead Assessments and provide process expertise, this role receives the most intensive training (details above). Assessment Facilitators need to be the most fluent in the process and its tools because they coach the NOJV Manager and Assessment Team member roles. A two-hour course that can be delivered in person or virtually was developed and implemented for NOJV Manager and Assessment Team roles.

Ensure the BUs would have sufficient tools and resources to perform all parts of the process

To support the BUs in meeting process expectations and successfully engaging with their NOJV partners, Chevron developed standard materials for communication, execution and reporting. When sufficient local staffing is not available, additional resources are added to join the BU Assessment Teams.

Leverage the NOJV HES network to share knowledge and improve process effectiveness

Each quarter, Corporate HES conducts a conference call with the company-wide NOJV HES network to share updates, answer questions, and review lessons learned from recent assessments. The network provides regular opportunities to share best practices in executing the process, or to seek support for current challenges. The NOJV HES network also hosts a SharePoint[†] site where its members can access the latest process information, tools, and other resources as needed.

Perform corporate audits on the process

The NOJV HES Process was officially deployed in late 2011. In 2014, the process will be included in the corporate audit scope. This gives the BUs enough time to prioritize assets, engage operators, and develop and implement an Assessment schedule that aligns with the priorities and constraints of their resources and business plans.

External: Implementing with NOJV Operators

In designing the NOJV HES Process, Chevron's intent is to minimize the impact on the NOJV operator of conducting Assessment activities. Engagement begins at the point the JV has been tiered for an Assessment (Process Step 1). Well before an NOJV HES Assessment is scheduled, Chevron arranges meetings with NOJV operators, operating committees, and other stakeholders to introduce the process purpose and its value to the NOJV. Communication and orientation tools help the Chevron NOJV Representative inform and prepare the operator, and more importantly, initiate a good working relationship.

[†] SharePoint is a federally registered trademark of the Microsoft group of companies.

In most cases, the NOJV partners agree that the HES Assessment brings value, and endorse working with the operator to obtain the information needed to complete the Assessment. If an NOJV partner or the operator does not want to participate in an Assessment, the BU conducts an Assessment using public data and data available within the NOJV agreement. Afterwards the NOJV Engagement Plan is updated to include actions Chevron can take to strengthen the relationship so that enough trust will develop to exchange information with the NOJV and collaborate on ways to sustain HES performance.

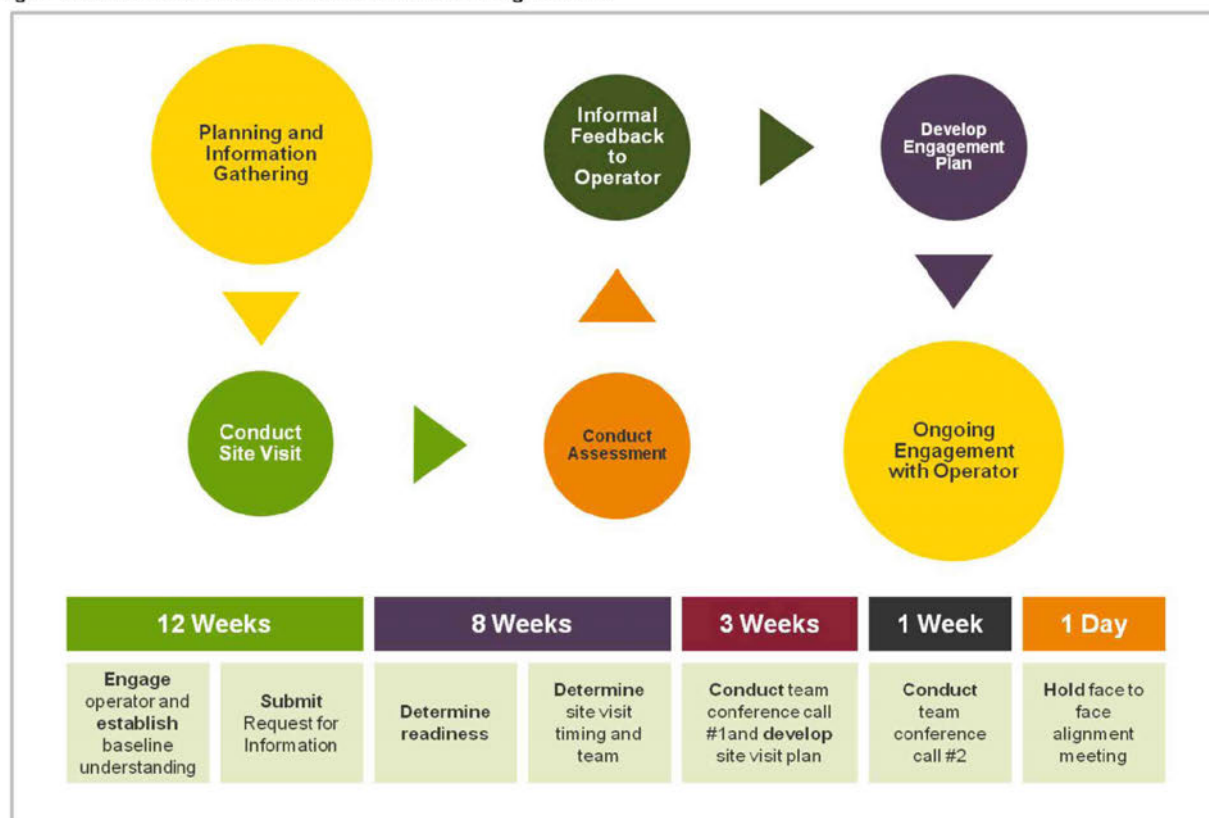
NOJV HES Assessment Workflow

A Team of 4–6 people is formed to perform an Assessment. Forming the team initiates the Assessment workflow, which is geared toward engaging NOJV operators before, during, and after the Assessment. **Fig. 4** shows how each phase of the process feeds the next step.

Planning and Information Gathering

Assessment planning involves significant gathering of information and pre-work that is done before a site visit is determined to be necessary. The timeline in **Fig. 4** helps the team estimate appropriate scheduling. When possible, the NOJV operator is engaged at least three months before the Assessment date to build understanding about the process and roles, and allow sufficient time for the team to gather the required information. At that time, Chevron introduces the Assessment process to the NOJV, requests additional information if needed, and solicits support for collaborating on HES opportunities.

Fig. 4—NOJV HES Assessment Workflow and Planning Timeline



The Chevron NOJV Manager and Assessment Facilitator initiate the Planning and Information Gathering phase by reviewing NOJV information that is already available, and then determining what additional information is required to conduct the Assessment. Chevron experiences a wide range of information availability depending on the type of NOJV and the current state of Chevron's relationship with the operator. In some cases, information is already freely exchanged between partners. In others, this is a new aspect of the relationship and information may not be readily available. Identifying available information first ensures the team requests only what is needed from the NOJV operator, thus minimizing the impact on the operator's resources, and helping to build trust in the early stages of engagement.

Information gathering is an iterative step. Every time a new piece of information is collected, the team must ask: What is missing? What information is available to us now? What added information can we request? What information is best collected on site? These questions ensure the team asks for the right level of information from the operator.

Site Visit and Assessment

The purpose of a site visit is to gather any remaining information that is not readily available through other sources. It is designed to allow a small team to tour the NOJV site, observe operations, and talk with site representatives over 1–2 days. Although a site visit is not always necessary, the NOJV Manager discusses potential timing with the operator during the Planning and Information Gathering phase. This allows the operator to plan for visitors, and the Assessment Team to make any necessary arrangements to visit the site (e.g., travel visas, site-specific training requirements, medical clearances, and so on).

If a site visit is agreed to, the NOJV Manager confirms the timing with the NOJV operator. The Facilitator then works with the NOJV Manager to finalize the makeup of the Assessment Team and develop a site visit plan that includes a high-level agenda and detailed objectives for each team member. Before their arrival, the Assessment Team conducts several planning meetings to review the site visit plan, establish clear roles and responsibilities, and ensure team members are familiar with the process, the tools, and the information gathered thus far.

Assessment Results Consolidation

The team reviews the data gathered both before and during the site visit. They discuss their most significant observations and agree on a preliminary list of issues to share with the operator before concluding the site visit. Should HES data gaps remain, that information can be collected later through ongoing future engagements outlined in the NOJV Engagement Plan.

Informal Feedback to the Operator

The site visit feedback is provided to the operator before the team leaves the NOJV site. Operators do not receive a formal documented report from the Assessment Team. The team verbally shares the high-level observations within each category in Appendix A. The presentation is informal and structured as a dialog to discuss potential ways Chevron can help the operator address any observations.

Gap Closure Plan

Using the information from the Assessment, the Assessment Team identifies key actions Chevron can take to learn from the NOJV operator or to assist in improving HES performance. They document these actions in the NOJV Engagement Plan.

Ongoing Engagement with the Operator

The Assessment is the mechanism to initiate meaningful dialog with the operator. The NOJV HES Engagement Plan is the process tool used to ensure continued dialog with the operator. Future NOJV engagements aim to continue closing information gaps, building the relationship, and sustaining or improving HES performance in alignment with the Engagement Plan.

Sustainability and Continual Improvement

The NOJV HES Process builds in checkpoints (**Fig. 5**) to ensure engagement occurs on a regular basis and that progress is shared internally. Every year, the NOJV Manager and Assessment Facilitator update the BU's Assessment of its program status. These updates reflect information gathered or changes made by the NOJV operator since the initial Assessment, including related updates to the NOJV HES Engagement Plan. In addition, the NOJV Manager shares the status on NOJV Engagements with the appropriate leadership in the business unit.

Fig. 5—Sustaining Operator Engagement

Annual update requirements	Reporting requirements	Re-assessment requirements
<ul style="list-style-type: none"> Update the NOJV HES Assessment and the NOJV HES and Engagement Plan based on new information and changes made by the NOJV operator 	<ul style="list-style-type: none"> Provide progress on executing the NOJV HES Engagement Plan, including status of key priorities and resources needed Audience and frequency of reporting varies based on nature of observations 	<ul style="list-style-type: none"> Five years since last Assessment Change of operator Observed decrease or lack of improvement in NOJV HES performance metrics Significant change in NOJV asset Recommendation by the Advisory Board

In addition to the above activities, clear governance is in place to make sure the process is implemented and managed throughout Chevron. The NOJV HES Advisory Board plays a critical governing role, and has representatives from operating units and corporate staff. This cross-functional group ensures consistent application of the NOJV HES Process across the enterprise. They meet six times per year to review the leading and lagging measures, discuss process improvements, and share information about recent Assessments. They are the main conduit for communicating with leadership about process results and in supporting the BUs' efforts to successfully conduct Assessments and build stronger relationships with the NOJV operators.

As with all of Chevron's OE processes, the NOJV HES Process includes components to support continual improvement. Chevron tracks leading and lagging metrics and then uses these verification results, along with other input, to evaluate how to improve the process design and effectiveness. The Advisory Board conducted a look-back session a year after the process was implemented. This resulted in tool improvements and process and scope clarifications.

Results and Conclusions

To date in 2013, approximately 60% of the Assessments required by the Process have been completed. Results and observations so far indicate a positive impact. One of the key results from the Assessment effort is that NOJV operators have been extremely receptive to the site visits and feedback, in part because the outcomes benefit both the NOJV and Chevron. Also, by developing strong relationships with the NOJV operators, Chevron and the operators are learning from each other.

The Assessments conducted to date have led to increased engagement and shared learning with a focus on improving HES performance. Examples of activities after an Assessment included:

- Secured employees were deployed to the NOJV to assist with implementation of risk-reducing processes.
- Subject matter experts gave presentations about risk-reducing processes to the NOJV.
- HES joint committees were established to develop, implement, and monitor risk-reducing processes.
- Resources were allocated to capital and operating budgets.

Frequently, the Assessment creates an opportunity for the Chevron NOJV Manager to personally visit the site, meet NOJV operator representatives, and view the facility with an expanded perspective that includes HES. The result has been revisions to existing NOJV management plans to include HES priorities, whereas in the past they were more focused on financial and operating criteria.

The 2012 look-back confirmed that Chevron's NOJV HES Process was on track to achieve its main objective: reducing HES risks by improving HES capabilities. Feedback from all process participants (Chevron and operator) indicated that the process, tools, and training were well designed and conducive to sustaining a mutually beneficial HES dialog. However, the BUs often faced challenges during the process, including:

Constraining joint operating agreements – Some of the agreements with the NOJV operator did not include terms and conditions that allowed Chevron sufficient access to the NOJV site or HES information to conduct all aspects of the assessment. This required the NOJV Manager to establish trust among the NOJV partners and help the NOJV operator see the mutual value of participating in the Assessment. When updating joint operating agreements, the NOJV HES Process helped identify terms that would support information sharing and collaboration on HES performance through implementation of the Process.

Adapting to different relationship maturities – The NOJV HES Process is designed to accommodate different types of assets and operator relationships. With relatively new JVs when the relationship is just forming or in other situations where it has been strained by other issues, NOJV teams found it challenging to conduct a comprehensive Assessment. The Assessment is not the end goal, but a mechanism to open dialog. Where insufficient information could be gathered, the NOJV Engagement Plan helped teams focus on developing an NOJV relationship conducive to future collaboration.

Keeping it simple – The purpose of the NOJV HES Process is to assess the operator's HES capability and not to conduct a comprehensive audit. It has been challenging at times to keep the information gathering and Assessment fit-for-purpose. To mitigate this risk, the Assessment Facilitator continually monitors and coaches the Assessment Team to focus on the high-risk areas during information gathering and site visits. A tool was developed to help Facilitators educate the Assessment Team about the process and tools.

Two of Chevron's key values are to focus on high performance and at the same time, protect people and the environment. The NOJV HES Process brings to life the principle that all NOJV partners—and not just the operators—share responsibility for these values. Collaborative engagement with NOJVs and a prescribed, monitored methodology for positive change help to ensure a more efficient workplace and a safer work environment wherever Chevron has a presence.

Appendix A: Assessment focus areas

Focus Area	HES Capability
Leadership and HES Culture	<ul style="list-style-type: none">• Leadership is accountable for HES performance and demonstrates HES as a core value• HES risks are identified and mitigation plans are in place
Process Safety	<ul style="list-style-type: none">• HES metrics: Loss of containment events, fires and explosions• Management of Change• Risk Management Processes• Asset Integrity Processes• HES Incident Reporting and Investigation• Facilities Design and Construction Standards and Processes• Emergency Management
Workforce Safety	<ul style="list-style-type: none">• HES metrics: Near-miss reporting, total recordable incident rate, days away from work rate, fatalities• Workforce Safety Processes• HES Compliance Process
Environmental Management	<ul style="list-style-type: none">• HES metrics: Number and volume of spills and releases• Environmental Processes, Policies, and Procedures

Appendix B: Chevron Non-Operated Joint Venture HES Process pamphlet

Engage

Chevron is increasing HES engagement with our NOJV assets globally. Chevron engagement for the HES Assessment involves four key steps.






Pre-Work
Chevron will use existing information available to us (e.g., HES metrics and processes) to initiate the HES Assessment and will request additional information from Operator as needed.

Site Visit
A site visit may be necessary to understand local operations. With a small team, we may tour the NOJV site to observe and talk with site representatives.

Discuss Strengths and Opportunities
We will share observations, both positive and potential value adding opportunities. After the team completes its assessment, the Chevron JV Representative will contact you to share a more detailed summary.

Collaborate on Improvements
Then, we will collaborate, share best practices, and determine together how we can support your management of HES issues and HES performance.



Shared Learning. Shared Success.
For more information about the Chevron NOJV HES Process, please contact your Chevron Joint Venture Representative.



Chevron Non-Operated Joint Venture HES Process

Shared Learning.
Shared Success.



Share

We see potential for mutual partner benefit by sharing our experiences and by learning from Operators of our Non-Operated Joint Ventures (NOJVs) about Health, Environment, and Safety (HES) practices.



Over the past several years, Chevron has been on a journey to create a culture of Operational Excellence (OE) throughout our operations. And now, we are sharing our OE experiences and processes with NOJVs in support of HES performance.

Working collaboratively with our NOJV Operators, Chevron will:

- Seek the Operator's assistance with an HES Assessment;
- Use available HES information;
- Exchange best practices about HES performance;
- Build an effective, ongoing relationship that proactively addresses HES issues

Collaborate

Working together, Chevron and NOJV Operators can optimize HES performance. Our goal is to collaborate with the local Operator to conduct an HES Assessment and exchange best practices about ways to improve HES performance.

The NOJV HES Assessment explores three areas using industry standards and best practices as a benchmark:

Leadership/HES Culture

- Leadership is accountable for HES performance and demonstrates HES as core value
- HES risks are identified and mitigation plans are in place

Process Safety

- HES Metrics: Loss of containment events, fires, and explosions
- Key Processes: Management of change, risk management, asset integrity, HES incident reporting and investigation, facilities design and construction standards, emergency management

Workforce Safety/Environmental Management

- HES Metrics: Near-miss reporting, total recordable incident rate, days away from work rate, fatalities, number and volume of spills
- Key processes: Permit to work, lock-out/tag-out, motor vehicle safety, rig operations, lifting and rigging, contractor safety
- HES Compliance: Facility's self-audit processes and non-compliance handling

