## **AER Table of Noncompliant Events and Associated Risk Rating of AER Requirements**

The information in this table is for information purposes only. For specific reference to all AER requirements, the regulated party should refer to those Acts and Rules administered by the AER along with all Directives and Interim Directives issued by the Regulator. The AER will periodically review this table and make revisions to ensure the risk ratings are in alignment with current methods of practice, operations, and developing technologies. Accordingly, this table may not always be reflective of the most up to date risk rating of an AER requirement and associated noncompliant event.

	Regulatory Authority Compliance Category  Authorizations / Infrastructure		Noncompliant Event (Noncompliance with the requirement)	Risk Rating
Α			(Noncompliance with the requirement)	
		tructure		
App	plication Integrity			
Dire	ctive 056: Energy Development Ap	oplications and Schedules		
1		Facilities Technical	Failure to acquire the necessary facility licence prior to commencing site preparation, construction and/or operation.	High
2			Filing an application when the applicant is not a working interest participant.	Low
3			Failure to file a licence amendment application when required.	Low
4			Failure to file a licence amendment application when required that results in a higher category/type.	High
5			Failure to apply for the correct category/type of facility.	Low
6			Failure to meet the spacing requirements in the facility design.	High
7			Failure to obtain approval from Alberta Culture for sites with Historic Resource Value 1, 2, or 3 prior to filing the application.	High
8			Failure to obtain approval from Alberta Culture for sites with Historic Resource Value of 4 and 5 prior to filing the application.	Low
9			Failure to complete an acceptable noise impact assessment prior to application.	High
10			Failure to meet the permissible sound levels at the nearest or most impacted residence.	High
11			Not including a VRU in the facility design when required.	High
12			Designing/constructing a facility with storage systems that have no secondary containment as required by Directive 055.	High
13			Designing/constructing a facility with storage systems that do not meet the applicable Low Risk requirements of Directive 055.	Low
14			Failure to submit a facility licence application as "Facilities-technical nonroutine" when required.	High
15			Failure to meet process flow diagram requirements.	Low
16			Failure to submit the requested audit documentation.	Low
17			Licensee or operator not conserving solution gas when directed by the AER to do so. (Directive 060, Section 2.6)	High
18		Participant Involvement	Failure to disclose to the AER any outstanding public/industry objections/concerns, whether they are received prior to or after filing of the application or whether the party is inside or outside the minimum contact radius of personal consultation and notification.	High
19			No attempt at public and/or industry personal consultation and notification prior to filing the application.	High
20			Incomplete public and/or industry personal consultation and notification prior to filing the application.	High
21			Failure to provide the required AER information packages prior to filing the application.	Low
22			Failure to provide the required AER project-specific information package prior to filing the application.	High
23			Failure to provide all required minimum information details in the project-specific information package prior to filing the application.	Low
24			Failure to obtain consent from the surface improvement owner prior to filing the application.	Low
25			Failure to meet the coal notification requirements prior to filing the application.	Low
26			Failure to meet the airport notification requirements prior to filing the application.	High
27			Filing the application before expiry of the 14-calendar-day notification period.	High
28			Failure to submit the requested audit documentation.	Low
29		Pipelines/Pipeline Installations Technical	Failure to acquire the necessary pipeline/pipeline installation licence prior to commencing right-of-way or site preparation, construction and/or operation.	High
30		. commou	Failure to apply for the correct category/type of pipeline.	Low
31			Failure to file a licence amendment application to reflect a change in the pipeline parameters which results in a higher cat/type or higher level designation.	High
32			Failure to file a licence amendment application to reflect a change in the pipeline parameters which does not result in a cat/type change or a change in level designation.	Low

	Regulatory Authority	Compliance Category	Noncompliant Event	Risk Rating
	Regulatory Authority	Compliance Category	(Noncompliance with the requirement)	ixisk ixatilig
33			Failure to design for the correct stress level.	High
34			Connecting pipelines with different MOPs and not having the appropriate pressure control devices in place.	Low
35			Failure to design for sour service where required.	High
36			The valves, flanges, fittings are not suitable for the applied for MOP as defined by CSA (Canadian Standards Association).	High
37			The substance of the connecting pipeline is not compatible with the proposed substance.	High
38			Designing the pipeline to transport a corrosive substance without including the proper internal corrosion measures.	High
39			Failure to obtain consent from Alberta Infrastructure prior to filing the application.	Low
40			Failure to meet Alberta Environment requirements prior to filing the application.	Low
41			Failure to provide a correct pipeline H2S release volume calculation which results in a higher level designation.	High
42			Failure to provide a correct pipeline H2S release volume calculation which results in no change to level designation.	Low
43			Failure to submit a pipeline/pipeline installation licence application as "pipelines/pipeline installations technical nonroutine" when required.	High
44			Failure to complete an acceptable noise impact assessment prior to application.	High
45			Failure to meet the permissible sound levels at the nearest or most impacted residence.	High
46			Failure to meet the spacing requirements in the facility design.	High
47			Designing/constructing a facility with storage systems that have no secondary containment as required by Directive 055.	High
48			Designing/constructing a facility with storage systems that do not meet the applicable Low Risk requirements of Directive 055.	Low
49			Failure to meet process flow diagram requirements.	Low
50			Failure to submit the requested audit documentation.	Low
51		Wells Technical	Failure to acquire the necessary well licence prior to commencing site preparation, construction and/or operation.	High
52			Failure to prepare an H2S release rate assessment when information in the public domain demonstrates the potential to encounter H2S in the proposed well.	High
53			Filling an application when the applicant is not a working interest participant.	Low
54			Failure to apply for the correct category/type of well.	Low
55			Failure to submit a survey plan that meets all applicable requirements.	Low
56			Failure to design to meet the pressure testing requirements for well re-entry licence application.	Low
57			Failure to design the surface casing to meet all applicable requirements.	High
58			Failure to provide adequate groundwater protection.	High
59			Failure to acquire a mineral lease continuation - No agreement with Department of Energy (DOE).	High
60			Failure to have permission from the mineral rights owner or lessee to exceed the 15m maximum overhole depth prior to filing the application.	High
61			Failure to acquire the rights to the intended formation(s).	High
62			Incomplete DSU for the intended formation(s).	High
63			No rights to substance(s) for the intended formation(s).	High
64			Failure to acquire the abandoned wellbore rights.	High
65			Failure to meet or address the waterbody setback requirement prior to filing the application.	High
66			Failure to meet the surface improvement requirements prior to filing the application.	High
67			Failure to meet AER Directive 056 environmental requirements prior to filing the application.	High
68			Failure to obtain approval from Alberta Culture for sites with Historic Resource Value of 1, 2, or 3 prior to filing the application.	High
69			Failure to obtain approval from Alberta Culture for sites with Historic Resource Value of 4 and 5 prior to filing the application.	Low
70			Failure to provide a geological prognosis and discussion regarding the potential to encounter H2S in all prospective formations.	Low
71			Failure to provide geological mapping for the primary and secondary formations as indicated on Schedule 4: Well Purpose.	Low
72			Failure to provide an engineering discussion of the H2S prospective formations.	Low
73			Failure to include the 15m overhole zone evaluation in the H2S release rate assessment.	Low

	Regulatory Authority	Compliance Category	Noncompliant Event (Noncompliance with the requirement)	Risk Rating	
74			Failure to meet the map or schematic cross-section requirements for the H2S release rate assessment prior to filing the application.	Low	
75			Failure to provide all basic elements, including AOF test type, in the H2S release rate assessment prior to filing the application.	Low	
76			Failure to tabulate the results of the AOF and H2S information in the manner required prior to filing the application.	Low	
77			Failure to submit a well licence application as "wells-technical nonroutine" when required.	High	
78			Failure to file a licence amendment application when required.	Low	
79			Failure to submit the requested audit documentation.	Low	
Authorizations / Subsurface					

Waste & Storage
Directive 050 Drilling Waste Management

Interim Directive ID 2000-04 An Update to the Requirements for the Appropriate Management of Oilfield Wastes

Directive 055-Addemdum 2011-10-11

Directive 058: Oilfield Waste Management Requirements for the Upstream Petroleum Industry

80		Drilling Waste Audits	Cement returns were not buried on site under at least 1 metre of clean fill.	High
81			Cement returns were not managed appropriately.	High
82			Separated cuttings were not stored or managed appropriately.	High
83			Separated cuttings were not stored or managed appropriately.	Low
84			Sump closure was not completed within 12 months of drilling rig release.	High
85			Sump was not constructed in impermeable material.	High
86			Notification of drilling waste disposal form not filled out completely.	Low
87			Notification of drilling waste disposal form not filled out correctly.	Low
88			Notification of drilling waste disposal not submitted to the correct field office in time.	Low
89			A copy of the notification of drilling waste form not kept in the licensee's well file.	Low
90	Directive 050		Downhole injection or waste facility backup information not retained in well file.	
	(See also Interim Directive 2000-			Low
	04 and Directive 058)			
91	Directive 050 Section 1		Information records not maintained in well file as outlined in Directive 50, Section 1.	
	(See also Interim Directive 2000-			Low
	04)			
92	Directive 050		All information requirements were not followed.	
	(See also Interim Directive 2000-		·	High
	04 and Directive 058)			
93	Directive 050		Analytical data not provided when requested by landowner or regulatory agencies.	
	(See also Interim Directive 2000-			High
	04 and Directive 058)			9
94	Directive 050		Landowner approval not obtained prior to disposal.	
	(See also Interim Directive 2000-			High
	04 and Directive 058)			j j
95	Directive 050		Landowner approval record not kept in the licensee's well file.	
	(See also Interim Directive 2000-			High
	04 and Directive 058)			
96	Directive 050		Land treatment plan not approved by AER prior to commencement of activity.	
	(See also Interim Directive 2000-			High
	04 and Directive 058)			9
97	Directive 050		AER approval not received when using a new or innovative disposal or management option.	
'	(See also Interim Directive 2000-		opposition and a mondation and a management option.	High
	04 and Directive 058)			9.1
98	Directive 050		All appropriate waste sampling, preparation and testing not conducted according to requirements.	
	(See also Interim Directive 2000-		app. op. and to a supplied the supplied to a supplie	High
	04 and Directive 058)			1 11911
	ot and Directive 000)			

	Regulatory Authority	Compliance Category	Noncompliant Event	Risk Rating
	Regulatory Authority	Compliance Category	(Noncompliance with the requirement)	INISK INALITIES
99	Directive 050 (See also Interim Directive 2000- 04 and Directive 058)		All appropriate receiving soil sampling, preparation and testing requirements not conducted according to requirements.	High
100	Directive 050 (See also Interim Directive 2000- 04 and Directive 058)		All appropriate post-disposal sampling, preparation and testing requirements were not conducted according to requirements.	High
101	Directive 050 (See also Interim Directive 2000- 04 and Directive 058)		An appropriate disposal option was not utilized for a given waste stream.	High
102	Directive 050 (See also Interim Directive 2000- 04 and Directive 058)		The base of the final subsoil/waste mix not at least 1 metre above the water table and a layer of permeable material, and is not covered by at least one metre of clean subsoil.	High
	Directive 050 (See also Interim Directive 2000- 04 and Directive 058)		Disposal method not conducted correctly as outlined in Directive 50.	High
104	Directive 050 (See also Interim Directive 2000- 04 and Directive 058)		All appropriate disposal criteria have not been followed for a particular method.	High
105	Directive 050 (See also Interim Directive 2000- 04 and Directive 058)		All relevant calculations are not available or have not been conducted correctly.	High
106			AER approval was not obtained by licensee when using advanced gel chem system.	High
107	Directive 050 (See also Directive 058)		Biodegradation not conducted according to Directive 058 or as otherwise outlined in an Approval.	High
108			Oil and Gas Conservation Rules were not followed.	High
109			Oil and Gas Conservation Rules were not followed.	Low
110			Failure to conduct proper paint filter test.	High
111	Directive 050 (See also Directive 058)		Waste characterization not conducted as per Directive 058 when disposing at waste management facility.	High
112	Directive 050 [See also Directive 055- Addendum 2011-10-11 Section 2.1(6)]		Approval not in place to manage cement returns in an alternative manner under Directive 050.	High
113	Directive 050 Sections 3.1.1, 3.2.3, 3.2.4, 3.3.5, 3.4.6, 9.3.9(h)(i), 10.3.10(g)(h), 11.3.13(d)(e), 12.3.6(d), 13.3.8, 14.3.10, 14.3.11, 15.2.7		Failure to meet Directive 050 end point criteria.	High
114	Directive 050 Sections 1.6.3, 4.5.28(b), 6.4.13, 8.2.5(a), 9.2.4, 10.2.4, 11.2.2, 12.2.4, 15.2.4		Failure to obtain appropriate informed land owner/agency/department consent.	High
115	Directive 050 Sections 3.2.2, 3.5.7, 5.1.1, 5.2.3(a), 5.2.4, 5.2.5, 9.2.1(a), 9.2.2, 9.2.3, 10.2.1(a), 10.2.2, 10.2.3, 11.2.5, 11.2.6, 12.1.1(a), 12.2.2(a)(b)(c), 12.2.3, 13.2.2(a)(b)(c)(d), 13.2.3, 14.2.2(a)(b)(c)(d), 14.2.3, 15.2.5(a)(b)(c)		Failure to assess, sample, prepare, and test receiving soil (pre-disposal) conditions according to requirements.	High

	Regulatory Authority	Compliance Category	Noncompliant Event	Risk Rating
110			(Noncompliance with the requirement)	
116	Directive 050 Sections 4.2.1, 4.2.2, 4.2.3, 4.2.4, 4.2.5, 4.2.6, 4.2.7, 4.2.9, 4.2.10, 4.2.11, 4.2.12, 4.2.13, 4.3.15, 4.3.16, 4.3.17, 4.3.18, 4.3.19, 4.3.20, 4.3.21, 4.4.22, 4.4.25, 5.1.1, 5.2.3(b)(c), 5.2.4, 5.2.5(a)(b), 9.3.7(a)(b), 9.3.8, 9.3.11, 10.3.8, 11.3.10, 1		Failure to assess, sample, prepare, and test drilling wastes according to requirements.	High
117	Directive 050 Sections 3.5.9, 4.4.26, 5.1.1, 9.2.2, 9.4.15, 10.2.2, 10.4.14, 11.2.5, 11.4.17(a)(b)(c), 12.2.2(a)(b)(c), 12.4.10(a)(b)(c), 13.2.2(a)(b)(c)(d), 13.4.13(a)(b)(c)(d), 14.2.2(a)(b)(c)(d), 14.4.15(a)(b)(c)(d), 15.2.6(a)(b)		Failure to assess, sample, prepare, and test soil/waste mix (post disposal) conditions according to requirements.	High
118	Directive 050 Sections 1.5.2.1, 1.5.2.2, 21.3.3, 21.3.4, 21.4.5, 21.4.6		Failure to provide information to AER when requested or required.	Low
119	Directive 050 Sections 4.2.8, 4.5.28(a), 6.4.15, 8.2.5©, 8.2.6, 9.3.14, 15.2.4(b), 15.5.31, 15.5.32, 15.5.33, 17.2.2, 18.2.9, 21.2.1(a)(b)(c)(d)(e)(f), 21.2.2		Failure to document and maintain information to support appropriate drilling waste management.	Low
120	Directive 050 Sections 4.4.23, 4.4.24, 4.4.27, 9.3.6, 10.3.6, 10.3.7, 11.3.8, 11.3.9, 12.3.5, 13.3.4, 14.3.4, 17.2.1		Failure to use an appropriate disposal option.	High
121	Directive 050 Sections 4.5.29, 9.3.9(a)(c)(d)(e)(g), 9.3.12, 9.3.13, 10.3.10(a)(b)(c)(d)(f)(g)(h), 10.3.12, 11.2.1, 11.2.3(a)(b), 11.2.4(a)(b)(c)(e), 11.3.11(a)(b)(c)(d), 11.3.12(a)(b)(c), 11.3.13(a)(b)(c), 12.3.7, 13.2.1, 13.3.7(a)(b), 13.3.9, 13.3.12(a)(b), 14.2.1, 1		Failure to follow all appropriate disposal criteria for disposal method.	High
122	Directive 050 Sections 7.2.1 (a)(iii),(vi),(vii),(b), (c)(i),(ii),(iii),(iv),(vi),(vii),(d); 9.3.5; 10.3.5; 11.3.7		Failure to manage cement returns as per requirements.	High

	Regulatory Authority	Compliance Category	Noncompliant Event (Noncompliance with the requirement)	Risk Rating
123	Directive 050 Sections 6.2.1, 6.2.2, 6.2.8(b), 6.3.9, 6.3.10(a)(b)(c), 6.3.11, 6.4.12, 6.5.16, 6.5.17, 6.5.18, 6.6.20, 6.6.21, 6.7.21, 6.7.24, 8.2.3(a)(b)(c), 8.2.5(b), 9.3.7, 18.2.4		Failure to meet storage, construction and containment requirements.	High
124	Directive 050 Sections 6.4.14, 15.2.4(a)		Failure to meet signage requirements.	Low
125	Directive 050 Sections 6.2.7, 6.4.14, 7.2.1(c)(v), 15.2.4(a)		Failure to secure site/storage system so that it is not a public hazard.	Low
126	Directive 050 Sections 6.2.5(a)(b)(c), 6.5.19, 9.2.1(c)(d), 10.2.1(c)(d), 11.2.4(d), 12.2.1(c)(d), 13.3.10, 14.3.12, 15.2.3(a)(b)(c)		Failure to meet waterbody or water well set back requirements.	High
127	Directive 050 Sections 6.2.3, 7.2.1(e), 9.3.10, 10.3.11, 11.3.14, 12.3.8, 15.1.1, 15.4.3.30(d)(e), 16.2.1, 19.2.1, 19.2.2		Failure to obtain an AER approval when required.	High
128	Directive 050 Sections 10.3.9(c), 11.3.11(c)		Failure to properly identify hydrocarbon flag.	High
129	Directive 050 Sections 8.2.1, 8.2.2(a)(b), 9.3.9(b), 10.3.9(e), 11.3.11(e), 12.3.6(c)		Failure to conduct required toxicity assessment.	High
130	Directive 050 Sections 6.2.8(a), 8.2.4, 8.2.5(d), 15.2.7		Failure to dispose of wastes within required timelines.	High
131	Directive 050 Sections 3.5.10, 3.5.11, 6.6.22(a)(b)(c)(d)(e)(f)(g), 6.6.23(a)(b)(c), 8.2.7, 15.2.9, 15.2.10, 15.2.11, 15.5.34, 16.2.1, 16.2.2(a)(b)(c)(d)(e)(f)(g), 16.2.3, 18.2.5, 18.2.6, 18.2.7, 18.2.8, 19.3.3(a)(b)(c)(d)(e)(f)(g)(h)(i)(j), 19.3.4, 20.3.2, 20.3.3, 20.		Failure to submit required pre or post disposal notification or information.	Low
132	Directive 050 Sections 15.2.8, 15.3.2.12, 15.3.2.13, 15.3.2.14(a)(b), 15.3.2.15, 15.3.2.16, 15.3.2.17, 15.3.2.18, 15.3.2.19, 15.3.2.20(a)(b)(c), 15.3.2.21, 15.3.2.22(a)(b)(c), 15.3.2.23(a)(b), 15.3.2.24, 15.3.2.25, 15.3.2.26(b)(c)(d), 15.3.2.27(a)(b)(c), 15.3.2.28, 15.		Failure to meet requirements for biodegradation of drilling wastes.	High
133	Directive 050 Sections 18.2.1, 18.2.2, 18.2.3		Failure to conduct thermal treatment of wastes according to requirements.	High

	Regulatory Authority	Compliance Category	Noncompliant Event (Noncompliance with the requirement)	Risk Rating
134	Directive 050 Sections 3.5.8,		Failure to ensure field screening program is supported by an appropriate ongoing QA/QC program.	Low
	4.3.14, 5.1.2, 5.2.6, 5.2.7, 5.2.8			LOW
135	Directive 050 Sections 6.2.4,		Failure to dispose and/or maintain drilling waste management systems as per Directive 050.	
	6.2.6, 9.2.1(b), 9.3.9(f),			Low
	10.2.1(b), 10.3.10(e), 10.3.13,			LOW
	11.3.16, 12.2.1(b), 15.4.2.26(a)			
136	Directive 050 Section		Failure to meet AWSS requirements as per Directive 050.	Low
	7.2.1(a)(i),(ii),(iv),(v),(viii)			Low

Directive 055: Storage Requirements for the Upstream Petroleum Industry

Directive 055-Addemdum 2011-10-11

Directive 050 Drilling Waste Management

Oil and Gas Conservation Rules (OGCR)
Informational Letter IL 84-11 Approval, Monitoring, and Control of Sulphur Storage Sites

137	OGCR Section 8	Material Storage Audits	Primary or Secondary containment is not installed where required.	High
138	OGCR Section 8		Spills and releases are not contained or cleaned up immediately.	High
139	OGCR Section 8		Materials storage exceeds specified duration.	Low
140	OGCR Section 8		Permanent storage not requiring secondary containment is not operated appropriately.	Low
141	OGCR Section 8		Temporary storage requirements are not met.	Low
142	OGCR Section 8		Siting for storage areas/facilities is not appropriate for environmental protection or emergency access.	Low
143	OGCR Section 8		Equipment / fire hazard spacing from the storage area is not appropriate.	High
144	OGCR Section 8		Stand alone storage facilities do not have appropriate signage.	Low
145	OGCR Section 8		AST (> 1m <sup>3</sup> < 5m <sup>3</sup> ) not constructed or operated appropriately.	Low
146	OGCR Section 8		Open-top nonmetallic AST not constructed or operated appropriately.	Low
147	OGCR Section 8		AST (≥5m³) not constructed or operated appropriately.	Low
148	OGCR Section 8		Single-wall AST (≥5m3) does not have secondary containment.	High
149	OGCR Section 8		Dike for single-wall AST (≥5m3) is not constructed appropriately.	Low
150	OGCR Section 8		Dike liner system not suitable or impervious.	Low
151	OGCR Section 8		Leak detection system is not constructed or operated to be able to verify the tank integrity.	Low
152	OGCR Section 8		Indoor tank area is not constructed or operated to contain spills and leaks.	Low
153	OGCR Section 8		Double-walled AST is not constructed and operated appropriately for secondary containment, leak detection, and overfill	Low
			protection.	Low
154	OGCR Section 8		UST installation is not appropriate double-walled tank design or installation is not appropriate to ensure tank integrity for a	High
			tank installed after January 1, 2002.	підп
155	OGCR Section 8		UST is not constructed or operated appropriately.	Low
156	OGCR Section 8		UST leak detection monitoring or records are not completed as required.	Low
157	OGCR Section 8		Containers do not have appropriate secondary containment as required.	Low
158	OGCR Section 8		Container storage in trailers or buildings is not appropriate.	Low
159	OGCR Section 8		LEE not constructed with appropriate primary and secondary containment.	High
160	OGCR Section 8		LEE built below grade secondary containment and leak detection is not constructed appropriately.	High
161	OGCR Section 8		Monthly leak detection monitoring for LEE is not completed appropriately or records not maintained.	Low
162	OGCR Section 8		The liquids from the annual LEE leak detection are not collected or sent for the required laboratory analysis.	Low
163	OGCR Section 8		Bulk Pads are not constructed or operated appropriately.	High
164	OGCR Section 8		Bulk Pad leak detection or leachate collection system designs are not appropriate for the pad use.	High
165	OGCR Section 8		Bulk Pad Leak detection monitoring is not completed monthly or appropriate records are not maintained.	Low
166	OGCR Section 8		The annual laboratory analysis is not completed as required for the samples collected from the Bulk Pad leak detection	Low
			system.	Low
167	OGCR Section 8		Inventory records of products are not kept for 2 years.	Low
168	OGCR Section 8		Inspection and monitoring program records are not maintained for 5 years.	Low
169	OGCR Section 8		Appropriate leak detection records for lined earthen excavations or bulk pads are not maintained for 5 years.	Low
170	OGCR Section 8		Required ground water monitoring and alternative leak detection records are not maintained for 5 years.	Low
171	OGCR Section 8		Approval and construction records are not retained as required or not kept on site or nearest office.	Low

			Noncompliant Event	
	Regulatory Authority	Compliance Category	(Noncompliance with the requirement)	Risk Rating
172	OGCR Section 8		Criteria for surface water discharge requirements are not met prior to discharge or appropriate records are not maintained	
			to verify compliance.	High
173	OGCR Section 8		Contaminated surface water is not disposed appropriately.	High
174	OGCR Section 8		A tank taken out of service temporarily is not appropriately isolated, monitored, or put back into service.	Low
175	OGCR Section 8		AST or UST taken out of service permanently does not meet the requirements.	Low
176	OGCR Section 8		Compacted clay liner is not designed or constructed to be impermeable.	Low
177	OGCR Section 8		Natural clay liner is not sited appropriately or constructed to be impermeable.	Low
178	OGCR Section 8		Synthetic liner is not selected or installed to provide an impermeable liner system.	Low
179	IL 84-11		Primary sulphur storage is not designed or operated appropriately.	High
180	IL 84-11		Professional engineering judgment was not exercised for selecting suitable integrity verification methods used or	Low
			implementation.	Low
181	IL 84-11		Inadequate investigation, resulting follow-up or records for potential contamination identified during pre-96 storage device alterations.	Low
182	IL 84-11		Professional engineering judgment was not exercised for selecting suitable integrity verification methods used or implementation.	Low
183	IL 84-11		Pre-96 facility single-walled AST ≥ 5m³ secondary containment is not retrofitted appropriately.	Low
184	IL 84-11		Pre-96 facility single-walled AST ≥ 5m3 is not integrity verified appropriately every 5 years.	Low
185	IL 84-11		Monthly inspections are not conducted for pre-96 AST systems.	Low
186	IL 84-11		Tank test does not verify integrity of entire AST.	Low
187	IL 84-11		Pre-96 AST holding materials other than fresh water or inert solids does not meet pre-96 dike requirements.	Low
188	IL 84-11		Modification of the existing pre-96 AST dike area is not appropriate.	Low
189	IL 84-11		Appropriate retrofits are not used for pre-96 ASTs to replace the 5 year integrity verification requirements.	Low
190	IL 84-11		Pre-96 UST retrofit design or operation do not meet the appropriate leak detection requirements .	Low
191	IL 84-11		Pre-96 facility single-walled UST is not integrity verified every 3 years.	High
192	IL 84-11		Small tank secondary containment not installed by October 31, 2004, for tank volumes >5m³/site.	High
193	IL 84-11		Pre-January 1, 2002 concrete Lined Earthen Excavation with leak detection (no secondary containment) remain in	
			service with out verification for integrity.	High
194	IL 84-11		Pre-January 1, 2002 concrete Bulk Pad remain in service where there is the potential to generate leachate without	
			appropriately leak detection monitoring.	Low
195	Directive 055-Addendum		Approval not in place for alternative storage system.	
	Section 2		. +	High
196	Directive 055-Addendum		Capacity of aboveground synthetically-lined wall storage system (AWSS) exceeded 50 m3 for storage of cement returns.	
	Section 2.1			Low
197	Directive 055-Addendum		Synthetic liners being used in aboveground synthetically-lined wall storage system (AWSS) used to storage cement	
	Section 2.1(2)		returns is not 30 mil thick, does not have properties suitable for the intended use, is not chemically resistant to the	Low
	,		compounds used to formulate the cement, or is not rated for the temperatures encountered.	
198	Directive 055-Addendum		Failure to maintain liner specification documentation for aboveground synthetically-lined wall storage system (AWSS)	
	Section 2.1(2)		used to store cement returns.	Low
199	Directive 055-Addendum		The wall system of an aboveground synthetically-lined wall storage system (AWSS) used to store cement returns is not	L Cl.
	Section 2.1(3)		engineered to withstand the hydraulic pressure of the stored contents at full capacity.	High
200	Directive 055-Addendum		Aboveground synthetically-lined wall storage system (AWSS) used to store cement returns fails to have a liner that	1
	Section 2.1(4)		covers the ground floor of the wall system, extend up the wall or be keyed to the outside of the wall.	Low
201	Directive 055-Addendum		The liner used in the Aboveground synthetically-lined wall storage system (AWSS), used to store cement returns, was not	Low
	Section 2.1(5)		secured to the wall or has been damaged as a result of securing the liner to the wall.	Low
202	Directive 055-Addendum		Aboveground synthetically-lined wall storage system (AWSS) used to store cement returns for greater than 1 year.	
	Section 2.1(6)			Low
			Aboveground synthetically-lined wall storage system (AWSS) not dismantled within 1 year of first being used.	Low
203	Directive 055-Addendum		Failure to dispose of cement returns at an approved landfill.	110.1
	Section 2.1(6)		·	High

	Pogulatory Authority	Compliance Category	Noncompliant Event	Risk Rating
	Regulatory Authority	Compliance Category	(Noncompliance with the requirement)	KISK Kating
204	Directive 055-Addendum		Approval not in place to manage cement returns in an alternative manner under Directive 050.	
	Section 2.1(6)			High
005	(See also Directive 050)			
205	Directive 055-Addendum		Liner used for the storage of cement returns was reused.	Low
206	Section 2.1(7) Directive 055-Addendum		Aboveground synthetically-lined wall storage system (AWSS) was used for the storage of hydrocarbon-based fracturing	
200	Section 2.2(1)		fluids or fracturing flowback fluids.	
	(See also Directive 055 Section		itulus of fracturing nowback fluids.	High
	11)			
207	Directive 055-Addendum		An aboveground synthetically-lined wall storage system (AWSS) used to store fracturing fluids and fracturing flowback	
	Section 2.2(2)		fluids exceeds a capacity of 3000 m3.	
	(See also Directive 055 Section		, and a second of the second o	High
	11)			
208	Directive 055-Addendum		Aboveground synthetically-lined wall storage system (AWSS) used to store fracturing fluid or fracturing flowback fluid is	
	Section 2.2(3)		not constructed of steel or designed, fabricated, tested or installed to applicable engineering, manufacturing, or regulatory	l li ada
	(See also Directive 055 Section		standards.	Hign
	11)			
209	Directive 055-Addendum		The wall system of an aboveground synthetically-lined wall storage system (AWSS), used to store fracturing fluid or	
	Section 2.2(3)		fracturing flowback fluid, is not engineered to withstand the hydraulic pressure of the stored contents at full capacity.	Lligh
	(See also Directive 055 Section			riigii
	11)			
210	Directive 055-Addendum		Aboveground synthetically-lined wall storage system (AWSS) used to store fracturing fluid or fracturing flowback fluid has	ļ
	Section 2.2(3)		not been certified by a professional engineer in good standing with the Association of Professional Engineers, Geologists,	High
	(See also Directive 055 Section		and Geophysicists of Alberta.	riigii
	11)			
211	Directive 055-Addendum		A liner used in a aboveground synthetically-lined wall storage system (AWSS) used to store fracturing fluid or fracturing	
	Section 2.2(4)		flowback fluid is not at least 30 mil thick, does not have a hydraulic conductivity of 10-7 cm/s or less, or does not have	Low
	(See also Directive 055 Section		properties suitable for the intended use, or is not chemically resisteant to the hyrdrualic fracturing and flowback fluids or	
040	11)		the liner is not rated for the temperatures that it encounters.	
212	Directive 055-Addendum		The liner used in a aboveground synthetically-lined wall storage system (AWSS) used to store fracturing fluid or fracturing	
	Section 2.2(5)		flowback fluid does not have a quality assurance/quality control report from the manufacturer specifying the liners	
	(See also Directive 055 Section		properties or its construction.	Low
	11)		Eailure to provide a copy of a quality accurance/quality control report from the manufacturer aposition the liners	
			Failure to provide a copy of a quality assurance/quality control report from the manufacturer specifying the liners properties or its construction to the AER.	
213	Directive 055-Addendum		Failure to document the ground surface preparation or installation of any geotextile used for the purposes of an	
213	Section 2.2(6)		aboveground synthetically-lined wall storage system (AWSS), including obtaining the sign off by the liner installation	
	(See also Directive 055 Section		contractor before the synthetic liner is installed.	Low
	11)		contractor before the synthetic met to instance.	LOW
	,		Failure to provide ground surface preparation or installation of any geotextile documentation to the AER.	
214	Directive 055-Addendum		Failure to consider the site-specific conditions when preparing and installing any geotextile as part of aboveground	
'	Section 2.2(6)		synthetically-lined wall storage system (AWSS) including any of the following: substrate stability and bearing capacity,	
	(See also Directive 055 Section		slope and grade, the adequacy of surface conditions, and the need for an intervening geotextile cushion.	High
	11)			
215	Directive 055-Addendum		The liner of a aboveground synthetically-lined wall storage system (AWSS) used to store fracturing fluid or fracturing	
	Section 2.2(7)		flowback fluid does not cover the ground floor of the wall system, extend up the wall or keyed onto the outside of the wall.	Lli∼h
	(See also Directive 055 Section			пign
	11)			
216	Directive 055-Addendum		The liner of an aboveground synthetically-lined wall storage system (AWSS) used to store fracturing fluid or fracturing	
	Section 2.2(7)		flowback fluid was not secured to the wall or has been damaged as a result of securing the liner to the wall.	High
	(See also Directive 055 Section			riigii
	11)			High  Low  High  High  High  Low  Low

	Regulatory Authority	Compliance Category	Noncompliant Event (Noncompliance with the requirement)	Risk Rating
217	Directive 055-Addendum Section 2.2(8) (See also Directive 055 Section 11)		The installation of a liner as part of an aboveground synthetically-lined wall storage system (AWSS) used to store fracturing fluid or fracturing flowback fluid is not installed in accordance with manufacturer's specifications or has not be done by qualified personnel.	High
218	Directive 055-Addendum Section 2.2(9) (See also Directive 055 Section 11)		Aboveground synthetically-lined wall storage system (AWSS) used to store fracturing fluid or fracturing flowback fluid has not been integrity tested prior to being put into service.	High
219	Directive 055-Addendum Section 2.2(10) (See also Directive 055 Section 11)		Failure to document liner installation or integrity verification procedures for an aboveground synthetically-lined wall storage system (AWSS) used to store fracturing fluid or fracturing flowback fluid.  Failure to provide the documented liner installati	Low
220	Directive 055-Addendum Section 2.2(11) (See also Directive 055 Section 11)		Walls and liner of an aboveground synthetically-lined wall storage system (AWSS) used to store fracturing fluid or fracturing flowback fluid have been penetrated.	High
221	Directive 055-Addendum Section 2.2(12) (See also Directive 055 Section 11)		Lines and hoses are not appropriately screened or located within the aboveground synthetically-lined wall storage system (AWSS) used to store fracturing fluid or fracturing flowback fluid so as to prevent damage to the liner.	High
222	Directive 055-Addendum Section 2.2(13) (See also Directive 055 Section 11)		Aboveground synthetically-lined wall storage system (AWSS) used to store fracturing fluid or fracturing flowback fluid is not isolated as much as practical from the drilling and fracturing operation or from vehicle traffic.	High
223	Directive 055-Addendum Section 2.2(14) (See also Directive 055 Section 11)		Aboveground synthetically-lined wall storage system (AWSS) used to store fracturing fluid or fracturing flowback fluid do not meet all AER equipment spacing and setback requirements.	High
224	Directive 055-Addendum Section 2.2(15) (See also Directive 055 Section 11)		Fluids are not first directed to a tank or series of tanks or other separation equipment to drop out solids, and separate out any hydrocarbons before directing flowback fluids into the aboveground synthetically-lined wall storage system (AWSS) used to store fracturing fluid or fracturing flowback fluid.	High
225	Directive 055-Addendum Section 2.2(16) (See also Directive 055 Section 11)		Freeze protection in aboveground synthetically-lined wall storage system (AWSS) used to store fracturing fluid or fracturing flowback fluid is not sufficient to prevent stored contents from reaching freezing point.	High
226	Directive 055-Addendum Section 2.2(17) (See also Directive 055 Section 11)		Failure to implement measures to prevent wildlife from entering or landing within a aboveground synthetically-lined wall storage system (AWSS) containing fracturing fluid or fracturing flowback fluid.	High
227	Directive 055-Addendum Section 2.2(18) (See also Directive 055 Section 11)		Failure to implement mitigative measures where fugitive emissions or odours resulting from aboveground synthetically-lined wall storage system (AWSS) used to store fracturing fluid or fracturing flowback fluid become a concern.	High
228	Directive 055-Addendum Section 2.2(19) (See also Directive 055 Section 11)		Aboveground synthetically-lined wall storage system (AWSS) used to store fracturing fluid or fracturing flowback is not visually inspected on a daily basis for leaks.	Low
229	Directive 055-Addendum Section 2.2(19) (See also Directive 055 Section 11)		Failure to document the results of daily visual inspections performed on aboveground synthetically-lined wall storage system (AWSSs) used for storing fracturing fluid or fracturing flowback or failure to provide the documentation to the AER upon request.	Low

	Pogulatory Authority	Compliance Category	Noncompliant Event	Risk Rating
	Regulatory Authority	Compliance Category	(Noncompliance with the requirement)	KISK Kating
230	Directive 055-Addendum Section 2.2(20) (See also Directive 055 Section 11)		Failure to have a contingency plan in place to immediately remove and appropriately manage the contents of the AWSS in the event that the containment of fracturing fluid or fracturing flowback fluid stored in aboveground synthetically-lined wall storage system (AWSS) fails.	Low
231	Directive 055-Addendum Section 2.2(21) (See also Directive 055 Section 11)		Aboveground synthetically-lined wall storage system (AWSS) used to store fracturing fluid or fracturing flowback fluid does not have a minimum freeboard of 1 metre at any given time.	High
232	Directive 055-Addendum Section 2.2(22) (See also Directive 055 Sections 5.3.2.1(a) and 11)		Fracturing fluid or fracturing flowback fluid stored in an aboveground synthetically-lined wall storage system (AWSS) has been stored in the AWSS for a period that exceeds 3 months.	Low
233	Directive 055-Addendum Section 2.2(22) (See also Directive 055 Sections 5.3.2.1(a) and 11)		Fracturing fluid or fracturing flowback fluid have been stored in an aboveground synthetically-lined wall storage system (AWSS) for a period that exceeds 3 months and there is no dike meeting the requirements of section 5.3.2.1(a) of Directive 055 or the site where the AWSS is located is not surroundeed with a 1 metre berm.	Low
234	Directive 055-Addendum Section 2.2(23) (See also Directive 055 Section 11)		Failure to sample and assess the soil area, where the aboveground synthetically-lined wall storage system (AWSS) is located, for contaminants related to the stored product if a leak exists or the integrity of the AWSS has been compromised.  Failure to implement remedial measures to reduce contamination applicable to the Alberta Environment Tier 1 Soil Remediation Guideline where contamination of the soil is identified around an aboveground synthetically-lined wall storage system (AWSS).	High
235	Directive 055-Addendum Section 2.2(24) (See also Directive 055 Section 11)		Liners used for the storage of fracturing fluid or fracturing flowback fluid was reused.	Low
236	Directive 055-Addendum Section 2.2(25) (See also Directive 055 Section 11)		Failure to notify the AER that an aboveground synthetically-lined wall storage system (AWSS) is going to be used to store fracturing fluid or fracturing flowback fluid.	Low
237	Directive 055-Addendum Section 2.2(25) (See also Directive 055 Section 11)		Failure to notify the AER two weeks prior to its use that a aboveground synthetically-lined wall storage system (AWSSs) is going to be used to store fracturing fluid or fracturing flowback fluid.	Low
238	Directive 055-Addendum Section 3(1)		Primary containment liners do not have a minimum hydraulic conductivity rating of 10-7 cm/s.	Low
239	Directive 055-Addendum Section 3(1)		Primary containment liners do not have a minimum hydraulic conductivity rating of 10-8 cm/s or less under full hydrostatic head when determined in a laboratory using a representative disturbed sample.	Low
240	Directive 055-Addendum Section 3(2)		Secondary containment liners do not have a minimum hydraulic conductivity rating of 10-6 cm/s or less.	Low
241	Directive 055-Addendum Section 3(2)		Secondary containment liners do not have a minimum hydraulic conductivity rating of 10-7 cm/s or less under full hydrostatic head when determined in a laboratory using a representative disturbed sample.	Low
242	Directive 055-Addendum Section 3(3)		Primary containment synthetic liner is not at a minimum 30 mils in thickness.	Low
243	Directive 055-Addendum Section 4(1) (See also Directive 055 Section 3.5)		Temporary use of single-walled aboveground storage tanks for which diking is optional as provided for in Section 3.5 of Directive 055 exceeds 3000 m3.	High

	Regulatory Authority	Compliance Category	Noncompliant Event (Noncompliance with the requirement)	Risk Rating
244	Directive 055-Addendum Section 4(2)		Temporary use of single-walled aboveground storage tanks for which diking is optional as provided for in Section 3.5 of Directive 055 are used for a period that exceeds three months.	
	(See also Directive 055 Section 3.5)			Low
245	Directive 055-Addendum Section 4(2) [See also Directive 055 Sections 3.5 and 5.3.2.1(a)]		Temporary use of single-walled aboveground storage tanks for which diking is optional as provided for in Section 3.5 of Directive 055 have been in use for a period exceeding 3 months or the maximum storage capacity has been exceeded and there is no appropriate secondary containment in place.	Low
246	Directive 055-Addendum Section 4(2) [See also Directive 055 Sections 3.5 and 5.3.2.1(a)]		Temporary use of single-walled aboveground storage tanks has been used for a period greater than 1 year.	Low

<u>Directive 058: Oilfield Waste Management Requirements for the Upstream Petroleum Industry</u>

Directive 030: Digital Data Submission of the Annual Oilfield Waste Disposition Report

Directive 051: Injection and Disposal Wells - Well Classifications, Completions, Logging, and Testing Requirements

Interim Directive ID 2000-04 An Update to the Requirements for the Appropriate Management of Oilfield Wastes

Informational Letter IL 98-02 Suspension, Abandonment, Decontamination, and Surface Land Reclamation of Upstream Oil and Gas Facilities Section 4.2

247	Directive 058	Oilfield Waste Generator Audits	Oilfield waste was not properly characterized.	High
248	Directive 058		Oilfield waste was not properly Classified as either Dangerous (DOW) or non-Dangerous (non-DOW).	High
249	Directive 058		Oilfield waste was not properly identified (waste type/waste code).	Low
250	Directive 058		Dangerous oilfield waste (DOW) was transported on public roads and the AER 4-Part Form did not accompany the waste.	Low
251	Directive 058		Containers meeting the definition of DOW were not considered as a DOW and not managed appropriately.	Low
252	Directive 058		Oilfield waste was mixed or diluted with a solid or a liquid for the primary purpose of dilution to avoid Alberta regulatory requirements.	High
253	Directive 058		Banned oilfield waste stream was injected down a pipeline for disposal.	High
254	Directive 058		Dangerous oilfield waste (DOW) transported on public roads did not include proper TDG information on AER 4-Part Form.	High
255	Directive 058		Oilfield waste generator (licensee/approval holder) has not implemented a oilfield waste tracking system.	Low
256	Directive 058		Selected oilfield waste generator (licensee/approval holder) did not prepare and submit an annual oilfield waste disposition report.	Low
257	Directive 058		Selected oilfield waste generator (licensee/approval holder) did not prepare an annual oilfield waste disposition report with appropriate summarized information.	Low
258	Directive 058		The oilfield waste generator (licensee/approval holder) did not identify on an appropriate shipping document that the oilfield waste being transported is non-DOW.	Low
259	Directive 058		DOW waste transported outside of province without AENV Movement Document/Manifest.	Low
260	Directive 058		Shipments of mixed wastes not identified on AER 4-Part Form as the most dangerous oilfield waste (per TDG requirements).	Low
261	Directive 058		Serious Discrepancy not reported to AER Waste Manifest Coordinator as soon as possible (if transporter issue).	High
262	Directive 058		Oilfield waste volume discrepancy not reconciled and was not reported to the AER Waste Manifest Coordinator within 60 days.	Low
263	Directive 058		AER 4-Part Form or supporting documentation not retained by the generator of the oilfield waste for a minimum of two vears.	Low
264	Directive 058		Oilfield waste generator (licensee/approval holder) not tracking oilfield waste from cradle to grave.	High
265	Directive 058		Oilfield waste tracking system does not enable the oilfield waste generator (licensee/approval holder) to demonstrate compliance.	Low
266	Directive 058		Oilfield waste tracking system data not maintained for a minimum of two years.	Low
267	Directive 058 (See also Directive 030)		Oilfield waste disposition report was not submitted via the Digital Data Submission System (DDS).	Low
268	Directive 058 (See also Directive 030)		Oilfield waste disposition report was not submitted within the required time frame.	Low

Committee   Comm		Degulatom, Authority	Compliance Cotogoni	Noncompliant Event	Diek Deting
See also Directive 0301   In association with the generators operations.		Regulatory Authority	Compliance Category		Risk Rating
Comparison of the Comparison	269				Low
Comment   Comm					LOW
Description (Control Descrip	270			Oilfield waste accounting was not done appropriately.	Low
Comment   Comm					LOW
See also Directive 0505  See also Directive 05	271				Low
Comment   Comm					2011
Directive 050 Control 050 Cont	272				High
Comment   Comm				Upstream Petroleum Industry.	g
Directive Objective (1955)	273				High
Cite of the Comment		,			9
Naturally Occurring Radioactive Material (NORM) laden oilfield wastes were not sent to an approved facility for management - disposal, treatment or storage.   High Cise also Directive 035	274			Oilfield waste was transferred to an unapproved transfer station.	High
See also Directive 055   management - disposal, treatment or storage.   Prigit					1 11911
Celes also Directive 058   Oilfield waste was not disposed of in the appropriate class of disposal well.   High	275				High
See also Directive 051   See also Directive 053					9.1
Cited as Directive 058   Oilfield waste was not disposed of at an approved waste processing facility.   High	276			Oilfield waste was not disposed of in the appropriate class of disposal well.	High
See also Directive 051   Oilfield waste was not disposed of within the appropriate class of landfill.   High					
(See also Directive 051) (See also Directive 053) (See also Directive 054) (See also Directive 055) (See also Directive 056) (See also Directive 056) (See also Directive 056) (See also Directive 057) (See also Directive 058) (See also Directive 058) (See also Directive 059) (See also Directive 059) (See also Directive 051) (See also Directive 058) (See also Directive 059) (See also Directive 059) (See also Directive 059) (See also Directive 051) (See also Directive 058) (See also Directive 058) (See also Directive 059) (See also Directive 0	277			Oilfield waste was not disposed of at an approved waste processing facility.	Hiah
See also Directive 051   Olifield waste was treated or sent to an unapproved biodegradation treatment facility.   High					<u> </u>
See also Directive 058	278			Olifield waste was not disposed of within the appropriate class of landfill.	Hiah
See also Directive 058   Oilfield waste was sent to a dedicated land treatment facility.   High		(			3
See also Directive 051   Cities was not provided to the AER Environment Group for the movement of oilfield waste from one location to another for the purpose of biologradation	279			Oilfield waste was treated or sent to an unapproved biodegradation treatment facility.	High
See also Directive 051   Cifield waste was not treated according to the one-time, on-site land treatment requirements.					ŭ
See also Directive 058   Oilfield waste was not treated according to the one-time, on-site land treatment requirements.   High	280			Oilfield waste was sent to a dedicated land treatment facility.	High
Cise also Directive 051   Directive 058   Directive 051   Directive 058   Directive 058   Notification was not provided to the AER Environment Group for the movement of olifield waste from one location to another for the purpose of biodegradation   Low another for the purpose of a Mobil thermal treatment unit did not have an Alberta Environment Approval.   High   Low another for the purpose of the purpose of the details of the mobile thermal treatment operations at least 30 days prior to the   Low another for the purpose of the purpose of the purpose	004				<u> </u>
Gee also Directive 058   Cise also Directive 059   Cise also Directive 058   Cise also Directi	281			Oilfield waste was not treated according to the one-time, on-site land treatment requirements.	High
Cise also Directive 051   Cise also Directive 058   Notification was not provided to the AER Environment Group for the movement of oilfield waste from one location to another for the purpose of biodegradation   Low	000				, and the second
Clear also Directive 058   Notification was not provided to the AER Environment Group for the movement of oilfield waste from one location to another for the purpose of biodegradation   Low	282			Oilfield waste was not treated according to the one-time, on-site bioplie/biocell treatment requirements.	High
another for the purpose of biodegradation   Low	000			N. If a line was a large of the	•
Directive 058   Notification was not provided to the AER Environment Group for the movement of oilfield waste from one location to (See also IL 98-02)   Colfield waste was not treated at an approved Thermal Treatment Facility.   High	283	Directive 058		Notification was not provided to the AER Environment Group for the movement or officed waste from one location to	Low
See also IL 98-02    another for the purpose of storage.   Low	20.4	Directive 050		another for the purpose of blodegradation	
Directive 058 (See also IL 98-02)  287 Directive 058 (See also IL 98-02)  288 Directive 058 (See also IL 98-02)  289 Directive 058 (See also IL 98-02)  280 Directive 058 (See also IL 98-02)  280 Directive 058 (See also IL 98-02)  281 Directive 058 (See also IL 98-02)  282 Directive 058 (See also IL 98-02)  283 Directive 058 (See also IL 98-02)  284 Directive 058 (See also IL 98-02)  285 Directive 058 (See also IL 98-02)  286 Directive 058 (See also IL 98-02)  287 Directive 058 (See also IL 98-02)  288 Directive 058 (See also IL 98-02)  289 Directive 058 (See also IL 98-02)  290 Directive 058 (See also IL 98-02)  290 Directive 058 (See also IL 98-02)  291 Directive 058 (See also IL 98-02)  292 Directive 058 (See also IL 98-02)  293 Directive 058 (See also IL 98-02)  294 Directive 058 (See also IL 98-02)  295 Directive 058 (See also IL 98-02)  296 Directive 058 (See also IL 98-02)  297 Directive 058 (See also IL 98-02)  298 Directive 058 (See also IL 98-02)  299 Directive 058 (See also IL 98-02)  290 Directive 058 (See also IL 98-02)  291 Directive 058 (See also IL 98-02)  292 Directive 058 (See also IL 98-02)  293 Directive 058 (See also IL 98-02)  294 Directive 058 (See also IL 98-02)  295 Directive 058 (See also IL 98-02)  296 Directive 058 (See also IL 98-02)  297 Directive 058 (See also IL 98-02)  298 Directive 058 (See also IL 98-02)  299 Directive 058 (See also IL 98-02)  299 Directive 058 (See also IL 98-02)  290 Directive 058 (See	204				Low
Cise also IL 98-02   Cise also IL 98-02   Notification was not provided to the AER for the use of a Small Batch Incinerator. High	205			another for the purpose of storage.	
Directive 058   Notification was not provided to the AER for the use of a Small Batch Incinerator.   High	200			Office was not treated at an approved Thermal Treatment Facility.	High
Cise also IL 98-02    Cise also IL 98-02    Notification was not provided to the AER Calgary Office (Environment Group) 30 days prior to the use of a Mobil Thermal Low (See also IL 98-02)   Low (See also IL 98-02)   Intentity of the existing oil and gas facility. (See also IL 98-02)   High (See also IL 98-02)   Hig	286	,		Notification was not provided to the AEP for the use of a Small Patch Incinerator	
Directive 058 (See also IL 98-02)  288 Directive 058 (See also IL 98-02)  289 Directive 058 (See also IL 98-02)  280 Directive 058 (See also IL 98-02)  280 Directive 058 (See also IL 98-02)  281 Directive 058 (See also IL 98-02)  282 Directive 058 (See also IL 98-02)  283 Directive 058 (See also IL 98-02)  284 Directive 058 (See also IL 98-02)  285 Directive 058 (See also IL 98-02)  286 Directive 058 (See also IL 98-02)  287 Directive 058 (See also IL 98-02)  288 Directive 058 (See also IL 98-02)  289 Directive 058 (See also IL 98-02)  290 Directive 058 (See also IL 98-02)  291 Directive 058 (See also IL 98-02)  292 Directive 058 (See also IL 98-02)  293 Directive 058 (See also IL 98-02)  294 Directive 058 (See also IL 98-02)  295 Directive 058 (See also IL 98-02)  296 Directive 058 (See also IL 98-02)  297 Directive 058 (See also IL 98-02)  298 Directive 058 (See also IL 98-02)  299 Directive 058 (See also IL 98-02)  290 Directive 058 (See	200			Notification was not provided to the AEN for the use of a Small Batter incinerator.	High
Case also IL 98-02)   Treatment unit.   Cow	287			Notification was not provided to the AEP Calgary Office (Environment Group) 30 days prior to the use of a Mobil Thermal	
Directive 058 (See also IL 98-02)  Mobile thermal treatment unit operations did not comply with operating requirements of the existing oil and gas facility.  High  High  Directive 058 (See also IL 98-02)  Directive 058  The oily by-product material characterization criteria did not meet the requirements of the existing oil and gas facility.  High	201				Low
Case also IL 98-02)	288				
Directive 058 (See also IL 98-02)  Directive 058  The oily by-product material characterization criteria did not meet the requirements for the spreading of oily-by products to	200			with operating requirements of the existing of	High
CSee also IL 98-02)   CSee also IL 98-02)   The licensee/approval holder of the site did not ensure that all landowners and residents within a 1.5 kilometers radius were notified of the details of the intended mobile thermal treatment operations at least 30 days prior to the commencement of the thermal treatment.   High commencement of the thermal treatment.	289			Mobile thermal treatment unit did not have an Alberta Environment Approval	
Directive 058 (See also IL 98-02)  Directive 058  The approval was not obtained when utilizing a new/innovative treatment or management option, or when varying from the established criteria and requirements as published.  Directive 058  The oily by-product material characterization criteria did not meet the requirements for the spreading of oily-by products to	200			Moshe thermal treatment and not have any liberta Environment/Approval.	High
See also IL 98-02)   were notified of the details of the intended mobile thermal treatment operations at least 30 days prior to the commencement of the thermal treatment.    291   Directive 058 (See also IL 98-02)   The appropriate AER field centre was not notified by the licensee/approval holder of the site of the details of the mobile thermal treatment operations at least 48 hours prior to commencement of operations.    292   Directive 058 (See also IL 98-02)   AER approval was not obtained when utilizing a new/innovative treatment or management option, or when varying from the established criteria and requirements as published.    293   Directive 058 (The oily by-product material characterization criteria did not meet the requirements for the spreading of oily-by products to High	290			The licensee/approval holder of the site did not ensure that all landowners and residents within a 1.5 kilometers radius	
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293 Directive 058 The oily by-product material characterization criteria did not meet the requirements for the spreading of oily-by products to					High
	293				
		(See also IL 98-02)		roads.	High

	Regulatory Authority	Compliance Category	Noncompliant Event (Noncompliance with the requirement)	Risk Rating
294	Directive 058 (See also IL 98-02)		The oily by-product characterization data sheet and letter were not provided to the AER and the local authority having jurisdiction over the road prior to application.	Low
295	Directive 058 (See also ID 2000-04)		Oilfield waste was sent to a compost facility or managed by a compost component at waste management facilities including AENV regulated landfill.	High
296	Directive 058 (See also ID 2000-04)		Oilfield waste was sent to a registered landfill or a landfill currently operating under an Alberta Public Health Permit that will qualify for registration under AENV Code of Practice for Landfills.	High
297	Directive 058 (See also ID 2000-04)		The conditions or requirements were not followed as per the one-time approval issued for the management of oilfield waste.	High
298	Directive 058 (See also ID 2000-04)		Waste or recyclables entering or leaving Alberta were not classified as non-hazardous or hazardous in accordance with EPEA.	Low
299	Directive 058 (See also ID 2000-04)		A recycle docket pursuant to AENV requirements or the AER 4-part Form did not accompany the shipment(s) of DOW going to an AENV approved recycling facility.	Low
300	Directive 058 (See also ID 2000-04)		Oilfield wastes (with the exception of suitable cellulose materials) were sent to a compost facility or managed by a compost component at WM facility, including AENV landfills.	High
301	Directive 058 (See also ID 2000-04)		A single Alberta Oilfield Waste Form was not utilized for each load of oilfield waste or attachments were not used to describe each load when shipping the oilfield waste.	Low
302	Directive 058 (See also ID 2000-04)		Oilfield waste generator (licensee/approval holder) failed to submit requested information.	Low
303	Directive 058 (See also ID 2000-04)		Oilfield waste generator (licensee/approval holder) entered misrepresented information into the Annual Oilfield Waste Disposition Report or provided misrepresented audit documentation.	High

Directive 058: Oilfield Waste Management Requirements for the Upstream Petroleum Industry

Oil and Gas Conservation Rules (OGCR)

Oil and Gas Conservation Act (OGCA)

<u>Directive 051: Injection and Disposal Wells - Well Classifications, Completions, Logging, and Testing Requirements</u>

Informational Letter IL 84-11 Approval, Monitoring, and Control of Sulphur Storage Sites

Directive 055: Storage Requirements for the Upstream Petroleum Industry

304	Oilfield Waste Receiver Audits	Treatment or disposal of imported non DOW, non-dangerous waste without appropriate AER approval permit or importation of DOW.	High
305		The licensee generating an oilfield waste does not properly characterize and classify the waste material.	High
306		The waste generator does not minimize wastes generated.	Low
307		DOW wastes are not manifested appropriately for transportation on public roads as per TDG requirements.	Low
308		Wastes are not classified appropriately as DOW or Non-DOW based on characterization criteria or sufficient historical data is not available.	High
309		Containers containing 5 L or more of DOW are not handled as DOW appropriately.	Low
310		Wastes are mixed / diluted to avoid regulatory requirements.	High
311		Inappropriate waste is injection into a pipeline or disposal into the pipeline for the purpose of dilution.	High
312		Waste handling, movement, treatment, and disposal is not documented or tracked appropriately by the generator.	Low
313		An AER waste manifest is not completed appropriately or does not accompany the waste shipment on public roads as required.	Low
314		Form/Manifest (AER or AENV) is not completed or maintained appropriately.	Low
315		A serious discrepancy on the AER Form/manifest is not reconciled by the Generator.	High
316		The Receiver does not reconcile or report a discrepancy on the AER Form/AENV manifest to the generator.	Low
317		Generator does not have a system to or does not track waste from initial generation to final disposition.	High
318		Waste volumes are not reported appropriately in tonnes or m <sup>3</sup> .	Low
319		Siting of the oilfield waste management facility is not appropriate.	High
320		The facility is not designed or operated to ensure safety for animals or people.	Low
321 Directive 058 (See also OGCR)		OGCR equipment spacing requirements are not met.	High
322		Corporate Emergency Response Plan is not available on site.	High
323		Facility does not meet noise control requirements.	Low

Reportable release unreported to the AEP or AEN.  Wash feeling accepts vasies they are not approved for or capable of handling.  High  Wash feeling accepts vasies they are not approved for or capable of handling.  Fally a not designed or operated on manual the impact to air, groundwater, surface water, or soils on/around the site.  High  AEP or the groundwater sampling program is not completed as per the approval requirements.  High  Required records are not maintained at the facility.  Component vasies storage-transfer stations are not constructed or operated to appropriate equirements.  Low  Component vasies storage-transfer stations are not constructed or operated to appropriate equirements.  Low  Component vasies storage-transfer stations are not constructed or operated to appropriate equirements.  Low  Component vasies station around report is not prepared or available for review as required.  The vasies transfer station around report is not prepared or available for review as required.  Low  Disposal well does not meet the facility approval requirements of Directive 051 with the potential to cause a serious issue.  Disposal well does not meet the facility approval requirements of Directive 051 with the potential to cause a serious issue.  Disposal well does not adequately meet the facility approval requirements of Directive 051 requirements with the potential to cause a serious size.  Disposal well does not adequately meet the facility approval requirements of Directive 051 requirements with the potential to cause a serious size.  Low  Disposal well does not adequately meet the facility approval requirements of Directive 051 requirements with the potential to cause a serious size.  Low  Disposal well does not adequately meet the facility approval requirements of Directive 051 requirements of Directive 051 requirements of Directive 051 requirements of Directive 053 with the potential value of the series of the series of Directive 051 requirements of Directive 053 requirements of Directive 054 requirements		Pogulatory Authority	Compliance Cotegory	Noncompliant Event	Risk Rating
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Operation plans do not ensure the landfill is operated in accordance with the design.   Low					
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Appropriate landfill sign is not posted at the entrance.   Low	351				High
Waste handling at the landfill is not appropriate to contain or control the waste.   Low					Low
Class la landfill containment design or operation, gas, surface water, or groundwater management is not appropriate.  Class lb landfill design or operation of containment design, gas, surface water or groundwater management is not appropriate.  Class II landfill design or operation of containment design, gas, surface water or groundwater management is not appropriate.  Class III landfill design or operation of containment design or surface water management is not appropriate.  Low  Waste materials are not deposited into appropriately classed, approved, or designed landfills.  High  Disposition of DOW materials into landfill is not within the permitted limits for one or more of the permitted  parameters/concentrations of a listed substance.  Groundwater wells at the landfill site are not secure or not maintained in good condition to ensure sampling.  Low  Sampling or analysis for solid, leachate, water at the landfill is not conducted appropriately.  Low  Annual landfill report is not complete or on time.  Required landfill records are not maintained on site until the end of the post-closure period.  Low					Low
appropriate.  Class II landfill design or operation of containment design, gas, surface water or groundwater management is not appropriate.  Class III landfill design or operation of containment design or surface water management is not appropriate.  Low  State materials are not deposited into appropriately classed, approved, or designed landfills.  High  Disposition of DOW materials into landfill is not within the permitted limits for one or more of the permitted parameters/concentrations of a listed substance.  Groundwater wells at the landfill site are not secure or not maintained in good condition to ensure sampling.  Campling or analysis for solid, leachate, water at the landfill is not conducted appropriately.  Annual landfill report is not complete or on time.  Required landfill records are not maintained on site until the end of the post-closure period.  Low	354				High
Class II landfill design or operation of containment design, gas, surface water or groundwater management is not appropriate.  Class III landfill design or operation of containment design or surface water management is not appropriate.  Low Waste materials are not deposited into appropriately classed, approved, or designed landfills.  High Disposition of DOW materials into landfill is not within the permitted limits for one or more of the permitted parameters/concentrations of a listed substance.  Groundwater wells at the landfill site are not secure or not maintained in good condition to ensure sampling.  Low Sampling or analysis for solid, leachate, water at the landfill is not conducted appropriately.  Low Annual landfill report is not complete or on time.  Required landfill records are not maintained on site until the end of the post-closure period.  Low Low	355				High
Class III landfill design or operation of containment design or surface water management is not appropriate.   Low	356			Class II landfill design or operation of containment design, gas, surface water or groundwater management is not	High
Waste materials are not deposited into appropriately classed, approved, or designed landfills.   High	357				Low
Disposition of DOW materials into landfill is not within the permitted limits for one or more of the permitted  Bigh  Bi					
Groundwater wells at the landfill site are not secure or not maintained in good condition to ensure sampling.  Sampling or analysis for solid, leachate, water at the landfill is not conducted appropriately.  Low Annual landfill report is not complete or on time.  Low Required landfill records are not maintained on site until the end of the post-closure period.  Low				Disposition of DOW materials into landfill is not within the permitted limits for one or more of the permitted	U
361Sampling or analysis for solid, leachate, water at the landfill is not conducted appropriately.Low362Annual landfill report is not complete or on time.Low363Required landfill records are not maintained on site until the end of the post-closure period.Low	360				LOW
Annual landfill report is not complete or on time.  Annual landfill report is not complete or on time.  Required landfill records are not maintained on site until the end of the post-closure period.  Low					
Required landfill records are not maintained on site until the end of the post-closure period.					
	364			Landfill closure timelines, records, or AER notification requirements are not met.	Low

	Regulatory Authority	Compliance Category	Noncompliant Event	Risk Rating
	Regulatory Authority	Compliance Category	(Noncompliance with the requirement)	KISK Katiliy
365			Final landfill cover construction or maintenance requirements are not met.	High
366			Biocell or Biopiles do not have the required approval or documentation.	High
367			One-time, on-site Biopile or Biocell containment devise or leachate collection system is not appropriately designed or operated.	Low
368			Permanent Biopile or Biocell containment device or leachate collection systems are not appropriately designed or operated.	Low
369			Biopile or Biocell is not operated or monitored to ensure the waste has been adequately treated or residuals are disposed of inappropriately.	High
370			Biopile or Biocell reporting, notification, or records keeping is not appropriate.	Low
371			One-time, on-site treatment Biopile or Biocell closure is not completed or documented appropriately.	Low
372			Small batch feed incinerators or mobile thermal treatment facility does not notify AER as required.	Low
373			Small batch feed incinerator or mobile treatment facility does not operate according to requirements.	High
374			Groundwater monitoring or reporting of the site assessment and monitoring program are not appropriate.	Low
375			Routine (annual) groundwater monitoring or reporting is not completed as required.	High
376			AER is not notified of identified groundwater impact within 60 days of the sampling date.	High
377			WM Approval administrative requirements are not met.	Low
378			WM Approval operational requirements are not met.	High
379	Directive 055		Primary or Secondary containment is not installed where required.	
0.0	(See also OGCR Section 8)		, 5. 5555.132., 551.132.132.132.132.132.132.132.132.132.13	High
380	Directive 055 (See also OGCR Section 8)		Approval not in place for alternative storage system.	High
381	Directive 055		Spills and releases are not contained or cleaned up immediately.	
301			Spins and releases are not contained or cleaned up infinediately.	High
382	(See also OGCR Section 8) Directive 055		Materials storage evened appointed duration	
302	(See also OGCR Section 8)		Materials storage exceeds specified duration.	Low
383	Directive 055		Permanent storage not requiring secondary containment is not operated appropriately.	
303	(See also OGCR Section 8)		remailent storage not requiring secondary containment is not operated appropriately.	Low
384	Directive 055		Temporary storage requirements are not met.	
001	(See also OGCR Section 8)		Tomporary diorago requiremente are not mou.	Low
385	Directive 055		Siting for storage areas/facilities is not appropriate for environmental protection or emergency access.	
	(See also OGCR Section 8)			Low
386	Directive 055		Equipment / fire hazard spacing from the storage area is not appropriate.	
	(See also OGCR Section 8)		1. F	High
387	Directive 055		Stand alone storage facilities do not have appropriate signage.	
	(See also OGCR Section 8)			Low
388	Directive 055		AST (> 1m <sup>3</sup> < 5m <sup>3</sup> ) not constructed or operated appropriately.	1
	(See also OGCR Section 8)		The Territory of the continuous of operation appropriately.	Low
389	Directive 055		Open-top nonmetallic AST not constructed or operated appropriately.	Low
	(See also OGCR Section 8)			
390	Directive 055		AST (≥5m³) not constructed or operated appropriately.	Low
	(See also OGCR Section 8)			-
391	Directive 055		Single-wall AST (≥5m3) does not have secondary containment.	High
	(See also OGCR Section 8)			9
392	Directive 055		Dike for single-wall AST (≥5m3) is not constructed appropriately.	Low
	(See also OGCR Section 8)			
393	Directive 055		Dike liner system not suitable or impervious.	Low
	(See also OGCR Section 8)			"
394	Directive 055		Leak detection system is not constructed or operated to be able to verify the tank integrity.	Low
	(See also OGCR Section 8)			
395	Directive 055		Indoor tank area is not constructed or operated to contain spills and leaks.	Low
	(See also OGCR Section 8)			== ***

	Demulatanu Authoritu	Compliance Cotemany	Noncompliant Event	Diele Detine
	Regulatory Authority	Compliance Category	(Noncompliance with the requirement)	Risk Rating
396	Directive 055		Double-walled AST is not constructed and operated appropriately for secondary containment, leak detection, and overfill	Low
	(See also OGCR Section 8)		protection.	
397	Directive 055 (See also OGCR Section 8)		UST installation is not appropriate double-walled tank design or installation is not appropriate to ensure tank integrity for a tank installed after January 1, 2002.	High
398	Directive 055		UST is not constructed or operated appropriately.	
330	(See also OGCR Section 8)		oo i is not constructed or operated appropriately.	Low
399	Directive 055		UST leak detection monitoring or records are not completed as required.	Law
	(See also OGCR Section 8)			Low
400	Directive 055		Containers do not have appropriate secondary containment as required.	Low
101	(See also OGCR Section 8)			
401	Directive 055		Container storage in trailers or buildings is not appropriate.	Low
402	(See also OGCR Section 8) Directive 055		LEE not constructed with appropriate primary and secondary containment.	
702	(See also OGCR Section 8)		LEE not constructed with appropriate primary and secondary contaminent.	High
403	Directive 055		LEE built below grade secondary containment and leak detection is not constructed appropriately.	112.1
	(See also OGCR Section 8)			High
404	Directive 055		Monthly leak detection monitoring for LEE is not completed appropriately or records not maintained.	Low
	(See also OGCR Section 8)			LOW
405	Directive 055		The liquids from the annual LEE leak detection are not collected or sent for the required laboratory analysis.	Low
400	(See also OGCR Section 8)		Dully Dada are not constructed as an extend annual rights.	
406	Directive 055 (See also OGCR Section 8)		Bulk Pads are not constructed or operated appropriately.	High
407	Directive 055		Bulk Pad leak detection or leachate collection system designs are not appropriate for the pad use.	
407	(See also OGCR Section 8)		bulk I ad leak detection of leachate collection system designs are not appropriate for the pad use.	High
408	Directive 055		Bulk Pad Leak detection monitoring is not completed monthly or appropriate records are not maintained.	
	(See also OGCR Section 8)		3 · · · · · · · · · · · · · · · · · · ·	Low
409	Directive 055		The annual laboratory analysis is not completed as required for the samples collected from the Bulk Pad leak detection	Low
	(See also OGCR Section 8)		system.	LOW
410	Directive 055		Inventory records of products are not kept for 2 years.	Low
444	(See also OGCR Section 8)		Leave the send was the first and a send of the first of t	
411	Directive 055 (See also OGCR Section 8)		Inspection and monitoring program records are not maintained for 5 years.	Low
412	Directive 055		Appropriate leak detection records for lined earthen excavations or bulk pads are not maintained for 5 years.	
712	(See also OGCR Section 8)		repropriate reak detection records for linea editinen excavations of bank pads are not maintained for a years.	Low
413	Directive 055		Required ground water monitoring and alternative leak detection records are not maintained for 5 years.	1
	(See also OGCR Section 8)			Low
414	Directive 055		Approval and construction records are not retained as required or not kept on site or nearest office.	Low
	(See also OGCR Section 8)			LOW
415	Directive 055		Criteria for surface water discharge requirements are not met prior to discharge or appropriate records are not maintained	High
440	(See also OGCR Section 8)		to verify compliance.	
416	Directive 055 (See also OGCR Section 8)		Contaminated surface water is not disposed appropriately.	High
417	Directive 055		A tank taken out of service temporarily is not appropriately isolated, monitored, or put back into service.	
717	(See also OGCR Section 8)		Trank taken out of service temperality to not appropriately isolated, monitored, or put suck into service.	Low
418	Directive 055		AST or UST taken out of service permanently does not meet the requirements.	
	(See also OGCR Section 8)			Low
419	Directive 055		Compacted clay liner is not designed or constructed to be impermeable.	Low
	(See also OGCR Section 8)			LOW
420	Directive 055		Natural clay liner is not sited appropriately or constructed to be impermeable.	Low
404	(See also OGCR Section 8)		Custbatic lines is not coloated as installed to provide an imposure abla lines as store	
421	Directive 055		Synthetic liner is not selected or installed to provide an impermeable liner system.	Low
	(See also OGCR Section 8)			

	Regulatory Authority	Compliance Category	Noncompliant Event	Risk Rating
	•	, ,	(Noncompliance with the requirement)	· · · · · · ·
422	Directive 055		Primary sulphur storage is not designed or operated appropriately.	High
	(See also IL 84-11)			riigii
423	Directive 055		Professional engineering judgment was not exercised for selecting suitable integrity verification methods used or	Low
	(See also IL 84-11)		implementation.	LOW
424	Directive 055		Inadequate investigation, resulting follow-up or records for potential contamination identified during pre-96 storage device	Low
	(See also IL 84-11)		alterations.	LOW
425	Directive 055		Professional engineering judgment was not exercised for selecting suitable integrity verification methods used or	1
	(See also IL 84-11)		implementation.	Low
426	Directive 055		Pre-96 facility single-walled AST ≥ 5m <sup>3</sup> secondary containment is not retrofitted appropriately.	1
	(See also IL 84-11)		To so taking origin transaction — one constitution to the constitution appropriately.	Low
427	Directive 055		Pre-96 facility single-walled AST ≥ 5m3 is not integrity verified appropriately every 5 years.	
	(See also IL 84-11)			Low
428	Directive 055		Monthly inspections are not conducted for pre-96 AST systems.	
	(See also IL 84-11)			Low
429	Directive 055		Tank test does not verify integrity of entire AST.	
	(See also IL 84-11)			Low
430	Directive 055		Pre-96 AST holding materials other than fresh water or inert solids does not meet pre-96 dike requirements.	_
	(See also IL 84-11)		The service is the service and the service is the s	Low
431	Directive 055		Modification of the existing pre-96 AST dike area is not appropriate.	
	(See also IL 84-11)		meaning and the should pro-so-year and area to not appropriate.	Low
432	Directive 055		Appropriate retrofits are not used for pre-96 ASTs to replace the 5 year integrity verification requirements.	
702	(See also IL 84-11)		Appropriate realistic are not used for pre-section to replace the oryent integrity verification requirements.	Low
433	Directive 055		Pre-96 UST retrofit design or operation do not meet the appropriate leak detection requirements .	
700	(See also IL 84-11)		The sold of Tetroit design of operation do not meet the appropriate leak detection requirements.	Low
434	Directive 055		Pre-96 facility single-walled UST is not integrity verified every 3 years.	
707	(See also IL 84-11)		The sol facility single-walled oot is not integrity verified every 5 years.	High
435	Directive 055			
433	(See also IL 84-11)		Small tank secondary containment not installed by October 31, 2004, for tank volumes >5m <sup>3</sup> /site.	High
436	Directive 055		Pre-January 1, 2002 concrete Lined Earthen Excavation with leak detection (no secondary containment) remain in	
430	(See also IL 84-11)			High
407	,		service with out verification for integrity.	_
437	Directive 055		Pre-January 1, 2002 concrete Bulk Pad remain in service where there is the potential to generate leachate without	Low
Dete	(See also IL 84-11)		appropriately leak detection monitoring.	
	Applications			J
	tive 007-1: Allowables Handbook			
_	nd Gas Conservation Rules (OGC			ı
438	Directive 007-1	Oil Overproduction	Failure to retire cumulative overproduction in accordance with the Directive 007-1: Allowables Handbook.	
1	ISon also OCCB Section			High

438 Directive 007-1 Oil Overproduction Failure to retire cumulative overproduction in accordance with the Directive 007-1: Allowables Handbook.

[See also OGCR Section 10.280(1)] High

# **Closure & Liability**

## **Liability Management**

Directive 001: Requirements for Site-Specific Liability Assessments in Support of the AER's Liability Management Programs

Directive 006: Licensee Liability Rating (LLR) Program and Licence Transfer Process

Directive 024: Large Facility Liability Management Program

Directive 075: Oilfield Waste Liability (OWL) Program

Oil and Gas Conservation Act (OGCA)

Oil and Gas Conservation Rules (OGCR)

43	Directives 006 Appendix 6 and	Noncompliance with Liability	Licensee fails to submit required information.	
	Section 2.3, 024 Appenix 5 and			
	Section 4, and 075 Appendix 5	Management Program		Low
		Requirements		
	and Section 2	Requirements		

			Noncompliant Event	
	Regulatory Authority	Compliance Category	(Noncompliance with the requirement)	Risk Rating
440	Directives 006 Section 6, 024		Failure to pay the security deposit.	1
ŀ	Section 7, and 075 Section 6			Low
	Section 9		Failure to update site-specific liability assessment cost estimates.	
	(See also OGCR Section 1.200)			Low
	OGCA Part 11		Failure to pay Orphan Fund Levy.	_
	(See also Directives 006, 024,	Orphan Levy		Low
	and 075)			
Oil &				
			pair Requirements; 2) Surface Casing Vent Flow/Gas Migration Testing, Reporting, and Repair Requirements; 3) Casing	
	Reporting and Repair Requireme			
443		Surface Casing Vent Flow/Gas Migration Audits	Errors in reporting.	Low
444		Migration Addits	Failure to respond to written notification from the AER in the time provided.	Low
445			Failure to submit a response to an audit in the time provided.	Low
446			Failure to perform SCVF/GM tests as required.	High
447			Failure to report a known SCVF/GM.	High
448			Producing a vent flow that does not meet the SCVF production requirements.	High
449			Failure to retain the required reports.	High
450			Failure to repair a serious SCVF/GM.	High
451		Well Casing Failure Audits	Errors in reporting.	Low
452		Tron Gaoing Landro Addition	Failure to respond to written notification from the AER in the time provided.	Low
453			Failure to submit a response to an audit in the time provided.	Low
454			Failure to report a known casing Failure.	High
455			Failure to retain the required records.	High
456			Failure to repair a casing Failure.	High
	ve 008: Surface Casing Depth Re	quirements	I amend to repair to second a second	1g
	Directive 008 Section 2	Surface Casing & Conductor Pipe Requirements	Failure to design surface casing in accordance with Section 2.	High
458	Directive 008 Section 2	r ipe rrequirements	Failure to set surface casing in accordance with Section 2.	High
	Directive 008 Section 2.3		Failure to set conductor pipe and install a Class I blowout prevent (BOP) system when a known hydrocarbon zone was	
			identified above the surface casing setting depth (Section 2.3).	High
	Directive 008 Section 2.4		Failure to meet one or more of the requirements when surface casing is set deeper than 650 m (Section 2.4).	High
	Directive 008 Sections 2.4, 3, and 4		Failure to retain supporting documentation for auditing purposes (Section 2.4, Section 3 and Section 4).	Low
	Directive 008 Sections 2.4.1, 3.1, and 4.1.		Failure to report a well control incident (kick) to AER Field Centre as required in Section 2.4.1, Section 3.1 and Section 4.1.	High
463	Directive 008 Section 2.5		Failure to meet surface casing requirements set out for Specified Areas (Section 2.5).	High
464	Directive 008 Section 3		Failure to meet one or more of the requirements for a surface casing exemption in Section 3.	High
465	Directive 008 Section 4		Failure to meet one or more of the requirements when using a Class I BOP after surface casing is set (Section 4).	High
466	Directive 008 Section 5		Failure to set conductor pipe as per Section 5.	High
	Directive 008 Section 5		Failure to meet surface casing regulatory requirements as per Section 5.	High
	Directive 008 Section 5		Failure to set conductor pipe and install a Class I BOP system as required in Section 5.	High
	Directive 008 Section 6		Failure to meet the requirements of Section 6 if an uncontrolled water flow is encountered (a blowout),	High
470		Surface Casing	Failure to report a well control incident (kick) while drilling the surface hole (deep surface casing greater 650 meters) to AER Field Centre.	Low
<u>Directi</u>	ve 010: Minimum Casing Design F	Requirements		•
471		Well Casing Design Requirements	A licensee fails to keep written records of all data and information used to support minimum casing design as detailed in Directive 010.	High
		rioquii omonio	A licensee fails to meet minimum casing design requirements.	High

	Regulatory Authority	Compliance Category	Noncompliant Event	Risk Rating
	Regulatory Authority	Compliance Category	(Noncompliance with the requirement)	KISK Kaliliy
473			A licensee fails to provide within 20 days data and information used to support minimum casing design as detailed in	Low
<u> </u>		6 14/ 11	Directive 010.	
	ive 013: Suspension Requirements			1
474 475		Suspended Well Audits	Failure to submit a response to an audit within the timeframe requested.	Low
476			Inadequate lease security and fencing.  Failure to submit inspection reports in required timeframe.	Low Low
477			Failure to retain well information or inspection information.	Low
478			Failure to report required information.	Low
479			Failure to submit the required audit documentation .	Low
480			Failure to conduct well inspection in required timeframe.	Low
481			Wellhead improperly maintained so that well control may be compromised.	High
482			Improper suspension for given well type (if suspended to lower risk level).	High
483			Failure to follow required reactivation procedures .	High
484			Reporting a well in a lower risk category.	High
Direct	ive 020: Well Abandonment			Ü
485	Directive 020 Sections 2.2 and 8	Well Abandonment Audits	Failure to notify AER prior to commencement of abandonment operations. (2.2), (8)	Low
486	Directive 020 Section 7.2		Failure to leave well open for a visual inspection in the designated site inspection region prior to cutting and capping. (7.2)	Low
487	Directive 020 Sections 7.1 and 7.3		Failure to perform SCVF/GM tests as required. (7.1), (7.3)	High
488	Directive 020 Section 7.2		Failure to conduct a fluid level test to determine if there are any leaking plugs. (7.2)	High
489	Directive 020 Section 8		Failure to complete surface equipment removal and cleanup activities within 12 months. (8)	High
490	Directive 020 Section 3.3		Failure to conduct surface abandonment operations immediately following confirmation of a successful reabandonment of a leaking well. (3.3)	Low
491	Directive 020 Sections 4.6 and 8		Failure to complete surface abandonment within specified timeframe. (4.6), (8)	Low
492	Directive 020 Section 8		Failure to inform affected parties prior to surface abandonment. (8)	Low
493	Directive 020 Section 2.1		Failure to conduct abandonment operations in accordance with a nonroutine approval. (Section 2.1)	Low
494	Directive 020 Section 3.2		Failure to abandon a well with existing zonal abandoned Level-A interval in accordance with the requirements. (Section 3.2)	High
495	Directive 020 Section 3.3		Failure to have written AER approval prior to reentering a previously abandoned well. (Section 3.3)	High
496	Directive 020 Section 3.4		Failure to abandon a reentry well from the reentry depth to surface. (Section 3.4)	High
497	Directive 020 Sections 4.5, 5.3, 5.4, 5.5, and 6		Failure to locate a cement plug using one of the approved methods. (Sections 4.5, 5.3, 5.4, 5.5, 6)	High
498	Directive 020 Section 4.5		Failure to correct a misplaced cement plug. (Section 4.5)	High
499	Directive 020 Section 4		Failure to set cement plugs as required. (Section 4)	High
500	Directive 020 Section 5.1		Failure to review the existing cement behind the casing as required. (Section 5.1)	High
501	Directive 020 Sections 4.1, 4.3, 4.4, 5.1, and 5.5.1		Failure to conduct remedial cementing operations as required. (Sections 4.1, 4.3, 4.4, 5.1, and 5.5.1)	High
502	Directive 020 Sections 4.1, 4.2, 5.3, and 5.4.1		Failure to use a cement blend that meets the requirements. (Sections 4.1, 4.2, 5.3 and 5.4.1)	High
503	Directive 020 Sections 4.1, 4.3, 4.4, and 5.2		Failure to fill the wellbore with the required fluid. (Sections 4.1, 4.3, 4.4 and 5.2)	High
504	Directive 020 Section 5		Failure to abandon each completed pool separately and cover all nonsaline groundwater with cement. (Section 5)	High
505	Directive 020 Section 5.3		Failure to abandon cased-hole wells not penetrating oil sands zones in accordance with requirements. (Section 5.3)	High
506	Directive 020 Section 5.4		Failure to abandon cased-hole wells penetrating oil sands zones in accordance with requirements. (Section 5.4)	High
507	Directive 020 Section 8.1		Failure to conduct cut and cap operations in accordance with requirements. (Section 8.1)	High
508			Failure to submit the requested audit documentation.	Low
509			Failure to submit a response to an audit within the timeframe requested Low.	Low

	Regulatory Authority	Compliance Category	Noncompliant Event (Noncompliance with the requirement)	Risk Rating	
510	Directive 020 Section 2.3 and		Failure to report surface abandonments through the DDS system (Licence Abandonment: Well Licence	Low	
	4.6		Abandonment) within 30 days of completing the operation. (Section 2.3 and 4.6)	LOW	
511	Directive 020 Section 3.3		Failure to report a reabandonment as an updated licence abandonment through the DDS system. (Section 3.3)	Low	
Environment & Operational Performance					
Resource Compliance					

Directive 065: Resources Applications for Oil and Gas Reservoirs

Directive 044: Requirements for the Surveillance, Sampling, and Analysis of Water Production in Hydrocarbon Wells Completed Above the Base of Groundwater Protection

Oil and Gas Conservation Rules (OGCR) Section 5

Interim Directive ID 99-1 Gas/Bitumen Production in Oil Sands Areas Application, Notification, and Drilling Requirements Amendment 4

Directive 007-1: Allowables Handbook

Interim Directive ID 94-02 Revisions to Oil and Gas Well Spacing Administration

Oil Sands Conservation Act (OSCA)

Oil Sands Conservation Rules (OSCR)

Coal Conservation Act (CCA)

Coal Conservation Rules (CCR)

512	Directive 065	Acid Gas Injection/Disposal	Injection without an approval.	High
513	Directive 065		Injection prior to meeting <i>Directive 051</i> requirements.	High
	(See also Directive 051)			підп
514	Directive 065		Acid gas is injected above specified depth.	High
515	Directive 065		Exceeding maximum injection rates.	High
516	Directive 065		Injected gas stream exceeds specified mole fraction of H2S level.	High
517	Directive 065		Failure to meet MOP.	High
518	Directive 065		Cumulative injection volume exceeds specified level.	High
519	Directive 065		Failure to inform the AER that a potential leak has been detected.	High
520	Directive 065		Failure to inform the AER of breakthrough of CO2 or H2S at producing well.	High
521	Directive 065		Failure to suspend injection operations when safety has been compromised.	High
522	Directive 065		Failure to meet testing, sampling and analysis requirements.	High
523	Directive 065		Failure to report any detrimental effects of scheme operations.	High
524	Directive 065		Failure to respond to the need to address unclear situations.	High
525	Directive 065		Failure to resolve issues or notify the AER of unresolved issues.	High
526	Directive 065		Misrepresentation of data in an application.	High
527	Directive 065		Failure to meet conditions of approval.	High
528	Directive 065		Failure to meet conditions of approval.	Low
529	Directive 065		Failure to apply for a name change or approval transfer.	Low
530	Directive 065		Failure to submit required test, sample, or analysis.	Low
531	Directive 065		Failure to submit progress report.	Low
532	Directive 065		Failure to meet application notification requirements.	High
533	Directive 065	Coalbed Methane Schemes	Commingling above specified depth.	High
534	Directive 065		Failure to determine source of origin of water production > specified level.	High
535	Directive 065		Failure to comply with control well provisions.	High
536	Directive 065		Failure to segregate and test after exceeding gas production rates.	High
537	Directive 065		Failure to meet testing, sampling and analysis requirements.	High
538	Directive 065		Failure to respond to the need to address unclear situations.	High
539	Directive 065		Failure to resolve issues or notify the AER of unresolved issues.	High
540	Directive 065		Misrepresentation of data in an application.	High
541	Directive 065		Failure to meet conditions of approval.	High
542	Directive 065		Failure to meet conditions of approval.	Low
543	Directive 065		Failure to meet performance presentation requirements.	Low
544	Directive 065		Failure to submit progress report.	Low
545	OGCR Section 3.060 (See also Directive 065)	Commingling	Commingling without approval (Section 3.060 for OGCR).	High

	Samuel at a mark A settle a settle a	0	Noncompliant Event	Diele Detiese
R	Regulatory Authority	Compliance Category	(Noncompliance with the requirement)	Risk Rating
	Directive 065		Failure to respond to the need to address unclear situations.	High
	Directive 065		Failure to resolve issues or notify the AER of unresolved issues.	High
	Directive 065		Misrepresentation of data in an application.	High
	Directive 065		Failure to meet conditions of approval.	High
	Directive 065		Failure to meet conditions of approval.	Low
	Directive 065		Failure to prorate production to pools as specified.	Low
	Directive 065 Figures 3.1 and .2, 3.3, or 3.4		Improper use of the decision trees (Figures 3.1 AND 3.2, 3.3, or 3.4 of Dir 065).	High
	Directive 065		Failure to use proper DE code.	Low
	Directive 065		Failure to submit test results by the required deadline.	Low
	Directive 065		Failure to meet notification requirements.	High
	OGCR Section 3.060		Completing and/or operating a well with casing perforated or left open in more than one pool without the requisite	
	See also Directive 065)		approval.	High
	Directive 065		Failure of the licensee to use proper DE or SD commingling codes.	Low
	Directive 065		Required tests are conducted properly, but not submitted by required deadline.	Low
	Directive 065		Failure to conduct required test(s), or conduct test(s) improperly.	High
	Directive 065	Concurrent Production	Concurrent production without approval (Sections 39 and 42 of the OGCA).	Tilgii
	See also OGCA Sections 39	Concurrent roduction	Containent production without approval (cooling of and 42 of the Cook).	High
\ -	nd 42)			riigii
	Directive 065		Oil well producing from gas cap perforations without approval.	High
	Directive 065		Exceeding maximum withdrawal rates.	High
	Directive 065		Exceeding maximum gas-oil ratio.	High
	Directive 065		Exceeding specified rates or number of producing wells.	High
	Directive 065 Directive 065		Failure to respond to the need to address unclear situations.  Failure to resolve issues or notify the AER of unresolved issues.	High
				High
	Directive 065		Misrepresentation of data in an application.	High
	Directive 065		Failure to meet conditions of approval.  Failure to meet conditions of approval.	High
	Directive 065			Low
	Directive 065		Failure to apply for a name change or approval transfer.	Low
	Directive 065		Failure to submit progress report.	Low
	Directive 065		Failure to meet performance presentation requirements.	Low
	Directive 065	0 ( 1 1 1 1 1	Failure to meet application notification requirements.	High
	Directive 065	Control Wells	Producing wells without the requisite control wells in place.	High
	Directive 065		Failure to conduct required test(s) or test conducted improperly.	High
	Directive 065		Failure to respond to the need to address unclear situations.	High
	Directive 065		Failure to resolve issues or notify the AER of unresolved issues.	High
	Directive 065		Misrepresentation of data in control well validation form.	High
	Directive 065		Failure to meet notification requirements (replacement of validated control well).	High
	Directive 065		Violation of Conditions of Control Well Designation.	High
	Directive 065		Failure to meet conditions of approval - High.	High
	Directive 065		Failure to meet conditions of approval - Low.	Low
	Directive 065		Failure to submit progress report.	Low
	Directive 065		Failure to meet performance presentation requirements.	Low
585 Di	Directive 065		Failure to identify valid control wells for the purpose of collecting data for the production of gas from coals, or gas or oil from shales.	High
586 Di	Directive 065	Enhanced Recovery Schemes	Wasteful Operations.	High
587 Di	Directive 065		Injection of fluid without approval (excluding waterfloods).	High
	Directive 065		Injection prior to meeting Directive 051 requirements.	
	See also Directive 051)			High
	Directive 065		Failure to commence injection.	High
	Directive 065		Improper fluid content.	High
	Directive 065		Inadequate injection volumes.	High

	Donaldon Authorita	Compliance Cotomonic	Noncompliant Event	Biole Boting
	Regulatory Authority	Compliance Category	(Noncompliance with the requirement)	Risk Rating
592	Directive 065		Injection of miscible fluid contrary to specified composition.	High
593	Directive 065		Inadequate solvent bank size.	High
594	Directive 065		Failure to meet MOP.	High
595	Directive 065		Inadequate VRR.	High
596	Directive 065		Failure to monitor fluid interface movement.	High
597	Directive 065		Failure to maintain specified injection cycles.	High
598	Directive 065		Failure to comply with GOR restrictions.	High
599	Directive 065		Inadequate sweep optimization/failure to distribute miscible fluids.	High
600	Directive 065		Inappropriate water-alternating-gas-ratios (value and cycle length).	High
601	Directive 065		Failure to monitor/report fluid breakthrough when required.	High
602	Directive 065		Failure to sample and analyze after miscible fluid breakthrough.	High
603	Directive 065		Inappropriate migration outside scheme.	High
604	Directive 065		Implementation of final phase without notification/approval.	High
605	Directive 065		Failure to meet testing, sampling, and analysis requirements.	High
606	Directive 065		Failure to report any detrimental effects of scheme operations.	High
607	Directive 065		Failure to respond to the need to address unclear situations.	High
608	Directive 065		Failure to resolve issues or notify the AER of unresolved issues.	High
609	Directive 065		Misrepresentation of data in an application.	High
610	Directive 065		Failure to meet conditions of approval.	High
611	Directive 065		Failure to meet conditions of approval.	Low
612	Directive 065		Failure to apply for a name change or approval transfer.	Low
613	Directive 065		Failure to submit progress report.	Low
614	Directive 065		Failure to meet performance presentation requirements.	Low
615	Directive 065		Failure to meet application notification requirements.	High
616	Directive 065	Equity Orders	Failure to respond to the need to address unclear situations.	High
617	Directive 065		Failure to resolve issues or notify the AER of unresolved issues.	High
618	Directive 065		Misrepresentation of data in an application.	High
619	Directive 065		Failure to meet conditions of approval.	High
620	Directive 065		Failure to meet conditions of approval.	Low
621	Directive 065		Failure to meet application notification requirements.	High
622	OGCR Section 10.300	Gas Allowables	Production prior to the assignment of a yearly allowable (Section 10.300 of the OGCR).	High
	(See also Directive 007-1)			High
623	ID 94-02		Failure to retire all cumulative overproduction in the time provided.	High
624	OGCR Section 10.280		Failure to shut-in upon written notice of overproduction (Section 10.280 of the OGCR).	High
	(See also ID 94-02).			riigii
625	ID 94-02		Resumption of production prior to retirement of cumulative overproduction.	High
626	ID 94-02		Failure to meet application notification requirements.	High
627	ID 94-02		Failure to resolve issues.	High
628	Directive 065	Gas Cycling	Wasteful Operations.	High
629	Directive 065		Injection of gas from unapproved fields/pools.	High
630	Directive 065		Failure to commence injection.	High
631	Directive 065		Production of gas from unapproved wells/wells precluded.	High
632	Directive 065		Exceeding specified gas production rates.	High
	Directive 065		Failure to meet MOP.	High
	Directive 065		Inadequate VRR.	High
	Directive 065		Failure to monitor fluid interface movement.	High
	Directive 065		Inadequate sweep optimization.	High
	Directive 065		Failure to comply with GOR restrictions.	High
	Directive 065		Inappropriate migration outside scheme.	High
	Directive 065		Implementation of final phase without notification/approval.	High
	Directive 065		Failure to meet testing, sampling, and analysis requirements.	High
641	Directive 065		Failure to report any detrimental effects of scheme operations.	High

	<b>5</b> 1.7 4.7 %	0 " 0 (	Noncompliant Event	D: 1 D ()
	Regulatory Authority	Compliance Category	(Noncompliance with the requirement)	Risk Rating
642	Directive 065		Failure to respond to the need to address unclear situations.	High
643	Directive 065		Failure to resolve issues or notify the AER of unresolved issues.	High
644	Directive 065		Misrepresentation of data in an application.	High
645	Directive 065		Failure to meet conditions of approval.	High
646	Directive 065		Failure to meet conditions of approval.	Low
647	Directive 065		Failure to apply for a name change or approval transfer.	Low
648	Directive 065		Failure to submit progress report.	Low
649	Directive 065		Failure to meet performance presentation requirements.	Low
650	Directive 065		Failure to meet application notification requirements.	High
651	Directive 065	Gas Storage	Gas storage without approval (Section 39 of the OGCA).	High
250	(See also OGCA Section 39)			
652	Directive 065		Static reservoir pressure exceeds specified level.	High
653	Directive 065		Failure to meet testing, sampling, and analysis requirements.	High
654	Directive 065		Failure to report any detrimental effects of scheme operations.	High
655	Directive 065		Failure to respond to the need to address unclear situations.	High
656	Directive 065		Failure to resolve issues or notify the AER of unresolved issues.	High
657	Directive 065		Misrepresentation of data in an application.	High
658	Directive 065		Failure to meet conditions of approval.	High
659	Directive 065		Failure to meet conditions of approval.	Low
660	Directive 065		Failure to apply for a name change or approval transfer.	Low
661	Directive 065		Failure to submit progress report.	Low
662	Directive 065		Failure to meet application notification requirements.	High
663	Directive 044	Groundwater Protection	Failure to conduct self-audits.	High
664	Directive 044		Failure to immediately notify the AER of water production above the threshold.	High
665	Directive 044		Failure to determine the source and/or composition of the water.	High
666	Directive 044		Conducting inadequate/improper tests to determine the source/or composition of water.	High
667	Directive 044		Failure to submit the required reports and groundwater protection action plan to the AER by the required deadline.	High
668	Directive 044		Failure to complete an AER approved groundwater protection action plan by the required deadline.	High
669	Directive 044		Failure to inform the AER that the AER approved groundwater protection action plan has been completed by the required deadline.	Low
670	Directive 044		Failure to resolve issues	High
671	OGCA Section 39	Injection/Disposal	Injection or disposal without approval (Section 39 of the OGCA).	_
071	(See also Directive 065)	injection/bisposai	injection of disposal without approval (Section 33 of the SSSA).	High
672	Directive 065		Disposal prior to meeting <i>Directive 051</i> requirements.	Link
	(See also Directive 051)			High
673	Directive 065		Disposal higher than approved depth.	High
674	Directive 065		Packer installed higher than approved depth (disposal).	High
675	Directive 065		Failure to confirm no migration of fluid when pressures>specified (disp).	High
676	Directive 065		Failure to respond to the need to address unclear situations.	High
677	Directive 065		Failure to resolve issues or notify the AER of unresolved issues.	High
678	Directive 065		Misrepresentation of data in an application.	High
679	Directive 065		Failure to meet conditions of approval (disposal).	High
680	Directive 065		Failure to meet conditions of approval (disposal).	Low
681	Directive 065		Failure to apply for a name change or approval transfer (disposal).	Low
682	Directive 065		Failure to submit progress report (disposal).	Low
683	Directive 065		Failure to meet application notification requirements.	High
684	ID 2003-01	Packer Testing Audits	Errors in reporting.	Low
685	ID 2003-01	. donor recting Addits	Failure to respond to written notification from the AER in the time provided.	Low
686	ID 2003-01		Failure to submit a response to an audit in the time provided.	Low
	ID 2003-01		Failure to complete necessary reporting of required packer testing by Sept 1 of each year.	High
688	ID 2003-01		Failure to perform repairs and report repair results to the AER within 90 days of detection.	High
	ID 2003-01		Failure to retain required records.	High
009	ווע 2003-0 ו	1	pramure to retain required records.	піўп

Regulatory Authority  (Social Section 5.09%)  (Social				Noncompliant Event	
GGR Section 5,005(2)   Conserving   Production without common ownership throughout a DSU.   High		Regulatory Authority	Compliance Category	·	Risk Rating
Cocks Section 5.005(2)   Failure to respond to the need to address unclear situations.   High	690	OGCR Section 5.005(2)	Production Without Common		Lliah
Rigid   See also Directive 065    Failure to resolve issues.   High			Ownership		nigii
Color Section 5.05(2)   Failure to resolve issues.   High	691			Failure to respond to the need to address unclear situations.	High
See also Directive 065					riigii
See also Directive 065   Sections 4.050(1) and so 05(1) of OGCR).   High So OGCR	692			Failure to resolve issues.	High
Sea also Directive 065   Production in a fractional DSU without approval.   High		. ,			1.119.1
See also Directive 065   Production in a fractional DSU without approval.   High	693		Spacing		
Production in a fractional DSU without approval.				and 5.005(1) of OGCR).	High
Producing wells contravene approved interwell and/or buffer zone limitations.   High					
Failure to respond to the need to address unclear situations.   High					0
Failure to resolve issues or notify the AER of urresolved issues.   High					
Misrepresentation of data in an application   High					
Failure to meet conditions of approval (excluding target areas).   High					·
Directive 065   Failure to meet conditions of approval (executing target areas).   Low					
Directive 065   Failure to meet application notification requirements.   Low   Failure to meet application notification requirements.   High					
Directive 065   Failure to meet application notification requirements.   High   Total Directive 065   Failure to apply to rescind or vary the area of a Holding/Block/Project when common ownership is no longer in place.   High   Total Directive 060   Upstream Petroleum Industry Flaring, Incinerating, and Venting   Total Paring, Incinerating and Venting   Total Paring, Incinerating and Venting   Total Paring, Incinerating and Venting   Total No permit >5% H2S.   Low   Total No public notification of temporary flaring/venting where required.   High   Total Incomplete decision live for temporary flaring.   Low   Total Decision Tree Process/Modeling   Directive 060 Sections 2.3, 2.4,   2.5, 2.8, 3.1, 4.1, 5.1, 6.1, 7.1, 8.1 and 9.1 of Directive 060).   Total Directive 060 Sections 3.3.1 and   Total Policetice 060 Sections					
Directive 065   Failure to apply to rescind or vary the area of a Holding/Block/Project when common ownership is no longer in place.   High 704   Directive 060: Upstream Petroleum Industry Flaring, Incinerating, and Venting					
Failure to apply to change the name of the holder of a holding.   Low				Failure to meet application notification requirements.	U
Paring, Incinerating and Venting   Flaring, Incinerating and Venting   Flaring, Incinerating and Venting   Flaring, Incinerating and Venting   Mayorphite flare system design and operation.   Low					
Flaring, Incinerating and Venting   Inappropriate flare system design and operation.   Low			N		Low
Audits  No permit >5% H2S.  No public notification of temporary flaring/venting where required.  No public notification of temporary flaring.  Low  No decision tree for temporary flaring.  Decision Tree Process/Modeling Directive 060 Sections 2.3, 2.4, 2.5, 2.8, 3.1, 4.1, 5.1, 6.1, 7.1, 8.1 and 9.1  Directive 060 Sections 3.3.1 and 7.12  Directive 060 Sections 3.3.1 and 7.12  Directive 060 Sections 3.3.1 and 7.12  Permits/Approvals Directive 060 Sections 3.3 and 3.5  Directive 060 Sections 3.3.1(2)  No permit obtained for temporary flaring or incinerating for natural gas if gas well test volume exceed their volume allowance (Sections 3.3.1, 3.2, and 3.7)  No permit obtained for temporary flaring or consultation on an oil battery.  No permit obtained for temporary flaring or consultation on an oil battery.  No permit spicetive 060 Sections 3.4, 2.5, 2.9, 2.11, 3.9, 4.2, 5.4, 6.4, 9.1(4), Table 1 and 2 of Directive 060 Directive 060 Operator does not have approval to report measured gas well production on an oil battery.  Notification and Consultation Directive 060 Sections 2.5, 2.9, Directive 060 Sections 2.5, 2.9, Directive 060 Sections 2.3, 2.4, 2.5, 2.8, 3.1, 4.1, 5.1, 6.1, 7.1, 8.1 and 9.1 of Directive 060.  High  Audits  High  No dispersion modeling for temporary flaring of remporary flaring or permits, volume allowance threshold exceedance permits, and blanket permits). (Sections 3.3, 3.3 and 3.5 of Directive 060).  No permit obtained for temporary flaring or incinerating of natural gas if gas well test volumes exceed their volume allowance (Sections 3.3.1, 3.2, and 3.7 of Directive 060).  High  Notification and Consultation Directive 060 Sections 2.5, 2.9, Directive 060 Sections 2.		ive 060: Opstream Petroleum Indu			
No permit 5% H2S.   High	705			Inappropriate hare system design and operation.	Low
No public notification of temporary flaring/venting where required.   High	706		7 taans	No permit >5% H2S.	Hiah
Incomplete decision tree for temporary flaring.   Low					
No decision tree for temporary flaring.   Low	708				
Decision Tree Process/Modeling Directive 060 Sections 2.3, 2.4, 2.5, 2.8, 3.1, 4.1, 5.1, 6.1, 7.1, 8.1 and 9.1  Toliective 060 Sections 3.3.1 and Toliective 060 Sections 2.5.2.9, Toliective 06	709				Low
2.5, 2.8, 3.1, 4.1, 5.1, 6.1, 7.1, 8.1 and 9.1  To prective 060 Sections 3.3.1 and 7.12 Directive 060 Sections 3.3.1 and 7.14 Directive 060 Section 3.3.1(2)  7.15 Directive 060 Sections 3.3.1, 7.16 Directive 060 Sections 3.3.1, 7.17 Notification and Consultation 7.18 Directive 060 Sections 2.5, 2.9, 7.19 Directive 060 Sections 2.5, 2.9, 7.10 Directive 060 Sections 2.5, 2.9, 7.11 Directive 060 Sections 2.5, 2.9, 7.12 Directive 060 Sections 2.5, 2.9, 7.13 Directive 060 Sections 3.3.1 and 7.14 Directive 060 Sections 3.3.1 and 7.15 Directive 060 Sections 3.3.1 and 7.16 Directive 060 Sections 3.3.1 and 7.17 Notification and Consultation 7.18 Directive 060 Sections 2.5, 2.9, 7.11 Directive 060 Sections 2.5, 2.9, 7.12 Directive 060 Sections 2.5, 2.9, 7.13 Directive 060 Sections 2.5, 2.9, 7.14 Directive 060 Sections 2.5, 2.9, 7.15 Directive 060 Sections 2.5, 2.9, 7.16 Directive 060 Sections 2.5, 2.9, 7.17 Notification and Consultation 7.18 Directive 060 Sections 2.5, 2.9, 7.11 Directive 060 Sections 2.5, 2.9, 7.12 Directive 060 Sections 2.5, 2.9, 7.14 Directive 060 Sections 2.5, 2.9, 7.15 Directive 060 Sections 2.5, 2.9, 7.16 Directive 060 Sections 2.5, 2.9, 7.17 Notification and Consultation Directive 060 Sections 2.5, 2.9, 2.11, 3.9, 4.2, 5.4, 6.4, 9.1(4), Table 1 and 2 of Directive 060 Sections 2.5, 2.9, 7.15 Directive 060 Sections 2.5, 2.9, 7.16 Directive 060 Sections 2.5, 2.9, 7.1	710	Decision Tree Process/Modeling			
8.1 and 9.1    Till Directive 060 Sections 3.3.1 and 7.12 of Directive 060).   High		Directive 060 Sections 2.3, 2.4,		temporary; flares, incinerators, and vents (Sections 2.3, 2.4, 2.5, 2.8, 3.1, 4.1, 5.1, 6.1, 7.1, 8.1 and 9.1 of Directive 060).	
To Directive 060 Sections 3.3.1 and 7.12 of Directive 060).  To Directive 060 Sections 3.3.1 and 7.12 of Directive 060).  To Directive 060 Sections 3.3.1 and 7.12 of Directive 060).  To Directive 060 Sections 3.3.1 and 7.12 of Directive 060).  To Directive 060 Sections 3.3.1 and 7.12 of Directive 060).  To Directive 060 Sections 3.3.1 and 7.12 of Directive 060).  To Directive 060 Sections 3.3 and 3.5 of Directive 060).  To Directive 060 Section 3.3.1(2)  To Directive 060 Section 3.3.1(2)  To Directive 060 Sections 3.3.1,  To Directive 060 Secti		2.5, 2.8, 3.1, 4.1, 5.1, 6.1, 7.1,			High
7.12 Directive 060 Sections 3.3.1 and 7.12 of Directive 060.  7.12 Directive 060 Sections 3.3.1 and 7.12 of Directive 060.  7.13 Permits/Approvals Directive 060 Sections 3.3 and 3.5 of Directive 060 Sections 3.3 and 3.5 of Directive 060.  7.14 Directive 060 Section 3.3.1(2)  7.15 Directive 060 Sections 3.3.1  7.16 Directive 060 Sections 3.3.1  7.17 Solution of permit of approval (temporary permits, volume allowance threshold exceedance permits, and blanket permits). (Sections 3.3 and 3.5 of Directive 060).  7.18 Directive 060 Section 3.3.1(2)  7.19 Directive 060 Section 3.3.1, 3.2, and 3.7  7.10 Directive 060 Sections 3.3.1, (Sections 3.3.1, 3.3.2, and 3.7 of Directive 060).  7.10 Directive 060 Sections 3.3.1, (Sections 3.3.1, 3.3.2, and 3.7 of Directive 060).  7.10 Directive 060 Sections 3.3.1, (Sections 3.3.1, 3.3.2, and 3.7 of Directive 060).  7.10 Directive 060 Sections 3.3.1, (Sections 3.3.1, 3.3.2, and 3.7 of Directive 060).  7.10 Directive 060 Sections 2.5, 2.9, 2.11, 3.9, 4.2, 5.4, 6.4, 9.1(4), Table 1 and 2 of Directive 060 Sections 2.5, 2.9, 2.11, 3.9, 4.2, 5.4, 6.4, 9.1(4), Table 1 and 2 of Directive 060 Sections 2.5, 2.9, 2.11, 3.9, 4.2, 5.4, 6.4, 9.1(4), Table 1 and 2 of Directive 060 Sections 2.5, 2.9, 2.11, 3.9, 4.2, 5.4, 6.4, 9.1(4), Table 1 and 2 of Directive 060 Sections 2.5, 2.9, 2.11, 3.9, 4.2, 5.4, 6.4, 9.1(4), Table 1 and 2 of Directive 060 Sections 2.5, 2.9, 2.11, 3.9, 4.2, 5.4, 6.4, 9.1(4), Table 1 and 2 of Directive 060 Sections 2.5, 2.9, 2.11, 3.9, 4.2, 5.4, 6.4, 9.1(4), Table 1 and 2 of Directive 060 Sections 2.5, 2.9, 2.11, 3.9, 4.2, 5.4, 6.4, 9.1(4), Table 1 and 2 of Directive 060 Sections 2.5, 2.9, 2.11, 3.9, 4.2, 5.4, 6.4, 9.1(4), Table 1 and 2 of Directive 060 Sections 2.5, 2.9, 2.11, 3.9, 4.2, 5.4, 6.4, 9.1(4), Table 1 and 2 of Directive 060 Sections 2.5, 2.9, 2.11, 3.9, 4.2, 5.4, 6.4, 9.1(4), Table 1 and 2 of Directive 060 Sections 2.5, 2.9, 2.11, 3.9, 4.2, 5.4, 6.4, 9.1(4), Table 1 and 2 of Directive 060 Sections 2.5, 2.9, 2.11, 3.9, 4.2, 5.4, 6.4, 9.1(4), Table 1 and 2 of Dir		8.1 and 9.1			
7.12 Directive 060 Sections 3.3.1 and 7.12 of Directive 060.  7.12 Directive 060 Sections 3.3.1 and 7.12 of Directive 060.  7.13 Permits/Approvals Directive 060 Sections 3.3 and 3.5 of Directive 060 Sections 3.3 and 3.5 of Directive 060.  7.14 Directive 060 Section 3.3.1(2)  7.15 Directive 060 Sections 3.3.1  7.16 Directive 060 Sections 3.3.1  7.17 Solution of permit of approval (temporary permits, volume allowance threshold exceedance permits, and blanket permits). (Sections 3.3 and 3.5 of Directive 060).  7.18 Directive 060 Section 3.3.1(2)  7.19 Directive 060 Section 3.3.1, 3.2, and 3.7  7.10 Directive 060 Sections 3.3.1, (Sections 3.3.1, 3.3.2, and 3.7 of Directive 060).  7.10 Directive 060 Sections 3.3.1, (Sections 3.3.1, 3.3.2, and 3.7 of Directive 060).  7.10 Directive 060 Sections 3.3.1, (Sections 3.3.1, 3.3.2, and 3.7 of Directive 060).  7.10 Directive 060 Sections 3.3.1, (Sections 3.3.1, 3.3.2, and 3.7 of Directive 060).  7.10 Directive 060 Sections 2.5, 2.9, 2.11, 3.9, 4.2, 5.4, 6.4, 9.1(4), Table 1 and 2 of Directive 060 Sections 2.5, 2.9, 2.11, 3.9, 4.2, 5.4, 6.4, 9.1(4), Table 1 and 2 of Directive 060 Sections 2.5, 2.9, 2.11, 3.9, 4.2, 5.4, 6.4, 9.1(4), Table 1 and 2 of Directive 060 Sections 2.5, 2.9, 2.11, 3.9, 4.2, 5.4, 6.4, 9.1(4), Table 1 and 2 of Directive 060 Sections 2.5, 2.9, 2.11, 3.9, 4.2, 5.4, 6.4, 9.1(4), Table 1 and 2 of Directive 060 Sections 2.5, 2.9, 2.11, 3.9, 4.2, 5.4, 6.4, 9.1(4), Table 1 and 2 of Directive 060 Sections 2.5, 2.9, 2.11, 3.9, 4.2, 5.4, 6.4, 9.1(4), Table 1 and 2 of Directive 060 Sections 2.5, 2.9, 2.11, 3.9, 4.2, 5.4, 6.4, 9.1(4), Table 1 and 2 of Directive 060 Sections 2.5, 2.9, 2.11, 3.9, 4.2, 5.4, 6.4, 9.1(4), Table 1 and 2 of Directive 060 Sections 2.5, 2.9, 2.11, 3.9, 4.2, 5.4, 6.4, 9.1(4), Table 1 and 2 of Directive 060 Sections 2.5, 2.9, 2.11, 3.9, 4.2, 5.4, 6.4, 9.1(4), Table 1 and 2 of Directive 060 Sections 2.5, 2.9, 2.11, 3.9, 4.2, 5.4, 6.4, 9.1(4), Table 1 and 2 of Directive 060 Sections 2.5, 2.9, 2.11, 3.9, 4.2, 5.4, 6.4, 9.1(4), Table 1 and 2 of Dir					
712 Directive 060 Sections 3.3.1 and 7.12 of Directive 060).  713 Permits/Approvals Directive 060 Sections 3.3 and 3.5 Directive 060 Sections 3.3.1 and 7.12 of Directive 060).  714 Directive 060 Section 3.3.1(2)  No permit obtained for temporary flaring or incinerating of natural gas if gas well test volumes exceed their volume allowance (Section 3.3.1 (2). of Directive 060).  715 Directive 060 Sections 3.3.1, 3.3.2, and 3.7  Directive 060 Sections 3.3.1, (Sections 3.3.3, 3.3.2, and 3.7 of Directive 060).  716 Operator does not have approval to report measured gas well production on an oil battery.  No dispersion modeling for flaring 1-5% H2S temporary. (Sections 3.3.1 and 7.12 of Directive 060).  High High  Coperator does not have approval to report measured gas well production on an oil battery.  Low  Notification and Consultation Directive 060 Sections 2.5, 2.9,  Directive 060 Sections 2.5, 2.9,  High  Ligh				No dispersion modeling for temporary flaring of >5% H2S. (Sections 3.3.1 and 7.12 of Directive 060).	High
7.12  Permits/Approvals Directive 060 Sections 3.3 and 3.5  No permit obtained for temporary flaring or incinerating of natural gas if gas well test volumes exceed their volume allowance (Section 3.3.1 (2). of Directive 060).  Directive 060 Sections 3.3.1, 3.3.2, and 3.7  Directive 060 Sections 3.3.1, (Sections 3.3.1, 3.3.2, and 3.7  Directive 060 Sections 3.3.1, (Sections 3.3.1, 3.3.2, and 3.7  Directive 060 Sections 3.3.1, (Sections 3.3.1, 3.3.2, and 3.7  Directive 060 Sections 3.3.1, (Sections 3.3.1, 3.3.2, and 3.7  Directive 060 Sections 3.3.1, (Sections 3.3.1, 3.3.2, and 3.7 of Directive 060).  This is a section 3.3.1 (Sections 3.3.1, 3.3.2, and 3.7 of Directive 060).  Directive 060 Sections 3.3.1, 3.3.2, and 3.7 of Directive 060).  Directive 060 Sections 2.5, 2.9, 2.11, 3.9, 4.2, 5.4, 6.4, 9.1(4), Table 1 and 2 of Directive 060).  High  High  High  High  Directive 060 Sections 2.5, 2.9, Directive 060).					111911
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716 Operator does not have approval to report measured gas well production on an oil battery.  Notification and Consultation Directive 060 Sections 2.5, 2.9, Directive 060).		,			High
717 Notification and Consultation Directive 060 Sections 2.5, 2.9, 2.11, 3.9, 4.2, 5.4, 6.4, 9.1(4), Table 1 and 2 of Directive 060 Sections 2.5, 2.9, 2.11, 3.9, 4.2, 5.4, 6.4, 9.1(4), Table 1 and 2 of Directive 060).	716				Low
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l Hinn		Directive 060 Sections 2.5, 2.9,			طاحا ا
					High
Table 1 and 2					
No attempt to comply with resident notification and/or consultation (Sections 2.5.2.9.2.11.3.9.4.2.5.4.6.4.9.1(4). Table	718			No attempt to comply with resident notification and/or consultation (Sections 2.5, 2.9, 2.11, 3.9, 4.2, 5.4, 6.4, 9.1(4), Table	Lliah
1 and 2 of Directive 060).				1 and 2 of Directive 060).	⊓ign
719 Directive 060 Sections 2.10, Failure to notify the appropriate AER Field Centre of any unresolved resident concerns regarding permitted sites	719	Directive 060 Sections 2.10,		Failure to notify the appropriate AER Field Centre of any unresolved resident concerns regarding permitted sites	High
3.5.1, 3.9.1 (Sections 2.10, 3.5.1, 3.9.1 of Directive 060).		3.5.1, 3.9.1		(Sections 2.10, 3.5.1, 3.9.1 of Directive 060).	riigii

	Degulatany Authority	Compliance Category	Noncompliant Event	Diels Detine
	Regulatory Authority	Compliance Category	(Noncompliance with the requirement)	Risk Rating
720	Directive 060 Sections 2.9.1 and		Public information packages not as per requirement (Sections 2.9.1 and 3.9 of Directive 060).	Low
	3.9			LOW
721			Late public notification of temporary flaring/venting where required.	Low
722	Directive 060 Section 4.2		Late AER notification of temporary flaring/venting where required. (Section 4.2 of Directive 060).	Low
723	Directive 060 Sections 2.9,		Failure to notify the appropriate AER Field Centre of flaring, incinerating, or venting events as required (Sections 2.9,	
	3.3.2,. 3.9, 4.2, 5.4, 6.4, Table 1		3.3.2,. 3.9, 4.2, 5.4, 6.4, Table 1 and Table 2 of Directive 060).	Low
	and Table 2			
724	Directive 060 Section 4.2		No AER notification of temporary flaring/venting where required (of temporary). (Section 4.2 of Directive 060).	Low
725	Volume / Duration Exceedances		Flaring, incinerating, or venting solution gas from an oil/bitumen well with a GOR greater than 3000 m3/m3 (Section 2.5 of	
	Directive 060 Section 2.5		Directive 060).	High
726	Directive 060 Sections 2.4 and		Exceeding oil & gas well test flaring / incinerating and venting duration limits (Sections 2.4 and 3.2 of Directive 060).	High
	3.2			riigii
727	Directive 060 Section 2.11.2		Noncompliance with solution gas production requirements during planned shutdowns and emergency events (Section	Low
			2.11.2 of Directive 060).	LOW
728	Directive 060 Section 5.2		Exceeding the annual flare volume limits at a gas plant (Section 5.2 of Directive 060).	High
729	Directive 060 Section 5.3		Exceeding the major flaring events criteria for gas plants (6-in-6). (Section 5.3 of Directive 060).	High
730	Directive 060 Section 5.3		Failure to submit an exceedance report within 30 days (6-in-6). (Section 5.3 of Directive 060).	High
731	Directive 060 Section 5.3		Failure to investigate repeated nonroutine flaring or venting events (Section 5.3 of Directive 060).	Low
732	Directive 060 Section 8.1		Gas is being vented, not burned, where it could support stable combustion (Section 8.1 of Directive 060).	High
733	Visible Emissions		Black smoke from non-routine or emergency flaring events exceeds an average of 40% opacity over 6 consecutive	High
	Directive 060 Section 7.2		minutes (Section 7.2 of Directive 060).	ŭ
734			Routine combustion of gases results in continuous or repeat black smoke emissions.	Low
735	H <sub>2</sub> S Gas		Failure to comply with conditions for flaring or incinerating small volumes of sour gas containing more than 50 mol/kmol	High
	Directive 060 Section 3.3.2		H2S when a permit is not required (Section 3.3.2 of Directive 060).	riigii
736	Directive 060 Sections 3.3.2,		Failure to discontinue flaring or incinerating sour gas during temporary operations (including well test), or at a gas plant	
	3.6, 7.12, and Appendix 8		when Alberta Ambient Air Quality Objectives have been exceeded (Sections 3.3.2, 3.6, 7.12, and Appendix 8 of Directive	High
			060).	
737	Directive 060 Sections 3.6 and		Failure to conduct dispersion modeling for flaring or incinerating gas with <=1% - 5%	Low
	7.12		(Sections 3.6 and 7.12 of Directive 060).	LOW
738	Directive 060 Sections 3.6 and		Failure to conduct dispersion modeling for flaring or incinerating gas with > 5%	High
	7.12		(Sections 3.6 and 7.12 of Directive 060).	riigii
739	Directive 060 Sections 7.1 and		Any off-lease H2S odors (Sections 7.1 and 8.2 of Directive 060).	High
	8.2			
740	Facility Design		Failure to have an adequate knockout drum or flare separator where required (Sections 7.6 and 8.1 of Directive 060).	
	Directive 060 Sections 7.6 and			High
	8.1			
741	Directive 060 Section 8		No flare or incinerator stack where one is required (Section 8 of Directive 060).	High
742	Directive 060 Section 7.4		Stack height or design does not conform to Directive 60 requirements (Section 7.4 of Directive 060).	Low
743			No flame arrester, equivalent safety device, or adequate engineering and operating precautions to prevent back flash where required.	High
744	Directive 060 Section 8.2		Sour pressure relief valves not tied into flare systems where required (Section 8.2 of Directive 060).	High
	Directive 060 Section 7.3		Pilot/ignition devices not available/operable where required (sour and acid gas flares). (Section 7.3 of Directive 060).	High
746	2304.73 333 3334		Insufficient heating value available to flare (Section 7.1.1 of Directive 060).	High
	Directive 060 Section 7.1.2		Insufficient exit temperature, no automatic temperature shutdown, or no process temperature control and recording where	J
			required from incinerators (Section 7.1.2 of Directive 060).	High
748	Directive 060 Section 7.1.2		Exposed flame from an incinerator (Section 7.1.2 of Directive 060).	High
749	Directive 060 Section 7.6		No high level alarm or high-level facility shutdown on knockout drum/flare separator where required (Section 7.6 of	
			Directive 060).	High
750	Directive 060 Section 7.5		Operating procedures and/or automatic shutdowns not in place where needed to control major sour/acid gas flaring	1.15.7
1			events (Section 7.5 of Directive 060).	High

	Regulatory Authority	Compliance Category	Noncompliant Event	Risk Rating	
	Regulatory Authority	Compliance Category	(Noncompliance with the requirement)	ixisk ixatilig	
751	Directive 060 Section 7.3.1		Extinguishing of a sour gas flare pilot without approval (Section 7.3.1 of Directive 060).	High	
752	Directive 060 Section 7.1		Flare or incinerator units not designed or reviewed by a professional engineer, certified technician or certified technologist (Section 7.1 of Directive 060).	High	
753	Directive 060 Sections 7(1), 7(2), 7.1.1, and 7.1.2		Failure to produce approved design drawings, operating limits, or procedures for flare or incinerator units upon AER request (Sections 7(1), 7(2), 7.1.1, and 7.1.2 of Directive 060).	Low	
754	Spacing Directive 060 Section 7.8		Noncompliance with flare and incinerator spacing requirements (Section 7.8 of Directive 060).	Low	
755	Directive 060 Section 7.8		Flare or incinerator stack less than 100 m from an occupied residence (Section 7.8 of Directive 060).	High	
756	Directive 060 Section 7.8		Flare pit, flare stack, or incinerator less than 25 metres from oil or gas processing equipment (Section 7.8 of Directive 060).	High	
757	Measurement and Reporting Directive 060 Sections 5.3, 5.5, and 10.4		Failure to keep flaring, incinerating, and venting logs as required (Sections 5.3, 5.5, and 10.4 of Directive 060).	Low	
758	Directive 060 Sections 10, 10.1, and 10.2		Inadequate flare or vent measurement or estimating procedures (Section 10, 10.1, and 10.2 of Directive 060).	High	
759	Directive 060 Sections 10, 10.1, 10.3, and 10.4		Failure to measure and/or report acid gas (Sections 10, 10.1, 10.3, and 10.4 of Directive 060).	High	
760	Directive 060 Section 10.1		Acid gas flare fuel make-up not measured (Section 10.1 of Directive 060).	High	
761	Directive 060 Section 10.1 (See also Directive 017 Sections 4.3.1 and 11.2)		Acid gas stream does not have continuous temperature measurement (Section 10.1 of Directive 060).	High	
762	Directive 060 Section 10		Gas usage not reported or reported inaccurately to the AER (Section 10 of Directive 060).	Low	
763	Directive 060 Sections 3.5.3, 3.10, and 10.4		Reporting incorrect data on the AER Sour Gas Flaring/Incineration Data Summary Report (Sections 3.5.3, 3.10, and 10.4 of Directive 060).	High	
Emergency Response & Prepardness					

### **Emergency Response & Prepardness**

<u>Directive 071: Emergency Preparedness and Response Requirements for the Petroleum Industry</u>

764	General ERP Re	auiromonto	Failure to provide information as requested by the AER for any audit, inspection, or investigation including the Emergency	∐iah
	Gelleral ERF Re	equirements	Response (ER) Assessment Program	High
765			Failure to have a corporate-level ERP.	High
766	Directive 071 Section 2.1		Failure to include information specified in Section 2.1 in the corporate-level ERP.	Low
767			Failure to ensure that a call to the licensee 24-hour emergency telephone number initiates immediate action.	High
768			Failure to ensure that the licensee 24-hour emergency telephone number is posted by the way of a conspicuous sign	High
			erected at the primary entrance to all licensee well and facility operations.	nigii
769	Directive 071 Appendix 4		Failure to have the information in Appendix 4 included in the ERP	Low
770			Failure to define appropriate actions, including public protection measures, that would be taken at each level of	Low
			emergency.	LOW
771			Failure to include the specified information in the communications plan or include the plan in the ERP	Low
772			Failure to identify roles and responsibilities of personnel required to effectively respond to an emergency.	Low
773			Failure to describe how a response to an emergency will be managed and coordinated and/or to address the roles and	Low
			responsibilities of personnel at the company's EOCs.	LOW
774			Failure to outline procedures for activating the reception centre or meeting and registering evacuees at the centre.	Low
775			Failure to have an up-to-date copy of the corporate-level ERP at a response location(s) in their area of operations.	High
776			Failure to review the corporate-level ERP with personnel assigned roles and responsibilities.	High
777			Failure to use the Assessment Matrix to classify an incident.	High
778			Failure to contact the AER after activating internal response resources to confirm the level of emergency and convey the	High
			specifics of the incident.	riigii
779			Failure to contact the local authority, RCMP/police, local RHA, government agencies, or support services if a hazardous	
			release goes off site and has the potential to impact the public or if members of the public or the media have been	High
			contacted.	
780	Directive 071 Appendix 8		Failure to provide the information in Appendix 8 to the public as soon as possible during an incident.	High
781		·	Failure to consult with the AER prior to making the decision to downgrade or stand-down an emergency	Low

	Regulatory Authority	Compliance Category	Noncompliant Event	Risk Rating
	Regulatory Authority	Compliance Category	(Noncompliance with the requirement)	Kisk Katilig
782			Failure to keep all affected persons and the media informed on the status of an emergency	High
783			Failure to adjust the actual size and shape of the final EPZ.	High
784			Failure to use AERH2S properly.	High
785			Failure to electronically submit a copy of the CSV batch export file from AERH2S in support of the ERP.	Low
786			Failure to address preplanned procedures in the ERP to monitor and respond to SO2 if AERH2S indicates that it would be a concern after ignition.	Low
787			Failure to ensure that on-site supervisory personnel are aware of the size of the EPZ.	High
788			Failure to attempt to evacuate residents from the IIZ if safe to do so.	High
789			Failure to carry out public and local authority notification and consultation prior to the development of an ERP.	High
790			Failure to identify all residents and local authorities within and adjacent to the EPZ	High
791			Failure to include an entire urban density development within the EPZ for the purpose of conducting the public	
			involvement program.	High
792			Failure to contact the appropriate urban director(s) of emergency management to review key emergency response	Lliab
			information and/or to confirm and coordinate each party's roles and responsibilities.	High
793			Failure to identify all urban density developments, campgrounds, and public facilities within the EAZ.	High
794			Failure to confirm and coordinate roles and responsibilities in accordance with the protocols established with the local	_
			authority, the directors of emergency management for all municipalities within and adjacent to the EPZ, and the local RHA	Low
			or applicabl	
795			Failure to attempt to reach a mutual understanding with local authorities on the specific needs and roles and	
			responsibilities of each party during an emergency and/or failure to include a summary of the roles and responsibilities in	Low
			the ERP.	
796	Directive 071 Table 3		Failure to notify or notify and consult with those listed in Table 3.	High
797	Directive 071 Section 4.3		Failure to conduct the public involvement program in accordance with Section 4.3.	Low
798			Failure to notify residents of urban centres that they are within the EPZ and to provide details of the public protection	
			measures available in the event of an emergency.	High
799			Failure to attempt to contact residents, persons away for an extended period of time, and nonresidents, such as	
			registered trappers and industrial operators, to arrange a suitable meeting time and place or to provide an information	Low
			package by registered m	
800	Directive 071 Table 3		Failure to develop a public information package and/or to provide all persons identified in Table 3 with a copy.	Low
801			Failure to provide the requisite information in the public information package.	Low
802			Failure to provide a copy of the public information package to the local AER Field Centre.	Low
803			Failure to attempt to obtain personal information for incorporation into the ERP	High
804			Failure to consider those residents who were unwilling to provide personal information as having special needs.	Low
805	Directive 071 Table 8		Failure to carry out public and local authority notification and consultation for situations outlined in Table 8.	Low
806			Failure to include in the site-specific ERP specific procedures for how and when notification will take place within the	
			EPZ.	Low
807			Failure to address how evacuation of the response zones within the EPZ will be accomplished.	Low
808			Failure to address assistance with transportation needs or changes in normal notification procedures in evacuating public facilities.	Low
809			Failure to include the appropriate shelter-in-place instructions in the public information package or in the ERP.	Low
810			Failure to address how notification and evacuation will take place outside of the EPZ or to include that summary in the	LOW
010			ERP.	Low
811			Failure to include ignition procedures in the ERP and/or acknowledge that ignition authority will be assigned to a licensee	Low
812		+	representative on site.  Failure to include an ignition policy in the ERP.	Low
813			Failure to include an ignition policy in the ERF.  Failure to include isolation procedures, such as establishing and managing roadblocks in the ERP.	Low Low
814			Failure to provide details on the use and procedures surrounding the activation of air quality monitoring equipment in the	
			ERP.	Low
815			Failure to clearly identify specified information on the ERP map.	Low
816			Failure to have a listing (including location, number, and type) of communications equipment, roadblock equipment, ignition equipment, and air monitoring equipment in the ERP.	Low
817			Failure to include a telephone list of key internal personnel or external emergency support services in the ERP.	Low

	Pogulatory Authority	Compliance Category	Noncompliant Event	Risk Rating
	Regulatory Authority	Compliance Category	(Noncompliance with the requirement)	KISK Kalling
818			Failure to ensure that all required plan holders have a copy of the approved ERP.	Low
819			Failure to include a plan distribution list in the ERP	Low
820			Failure to provide a copy of the ERP to any resident within the EPZ upon written request.	Low
821	Directive 071 Section 5.8		Failure to have a bridging paragraph in the ERP in accordance with the requirements of Section 5.8.	Low
822			Failure to identify roles and responsibilities of personnel or provide the names of key personnel and responders in the	1
			ERP.	Low
823	Directive 071 Section 5.11		Failure to have a process for recording the information for the activities in Section 5.11.	Low
824			Failure to include procedures in the ERP for activating, staffing, meeting and registering evacuees at the reception centre	1
			in the ERP	Low
825			Failure to include procedures in the ERP to downgrade and stand down levels of emergency	Low
826			Failure to distribute copies of the sour operations, HVP pipeline, cavern storage facility, sour well site-specific drilling	
			and/or completion ERP, or approved supplement to the government departments and agencies listed in Appendix 5	Low
			within 10 business d	
827			Failure to have an up-to-date copy of the site-specific ERP (hard copy or electronic) available at a response location in	112.1
			their area of operations.	High
828			Failure to include procedures in the ERP to downgrade and to stand-down levels of emergency.	Low
829			Failure to carry out the notification requirements within the EPZ.	High
830			Failure to advise the public within the EPZ of the appropriate public protection measures.	High
831			Failure to assess and act on the need to expand the evacuation area based on the monitored levels of H <sub>2</sub> S and as	Ü
			dictated by the specifics of the incident.	High
832	Directive 071 Section 14		Failure to comply with ignition criteria outlined in section 14.	High
833	Directive of 1 occion 14		Failure to take into account the specified factors when making the decision to ignite.	High
834			Failure to ensure that manned roadblocks are in place.	High
835			Failure to meet the air quality monitoring requirements for critical sour wells.	High
836			Failure to meet the air quality monitoring requirements for noncritical sour wells.	High
837			Failure to investigate the source of a release or send out air quality monitoring units upon confirmation of the release	
007			location.	High
838			Failure to ensure that the equipment identified in the ERP is available and located where specified in the ERP for any	
000			testing or workover operation.	High
839			Failure to ensure that company equipment is operational and the appropriate documentation is available to verify testing	
000			and calibration requirements.	High
840			Failure to demonstrate that the plan management system ensures that the ERPs are up-to-date as changes are	
040			identified.	High
841			Failure to distribute changes in information that are instrumental to implementing the ERP to all required plan holders.	High
842			Failure to correct errors identified in the ERP by the AER, licensee, or other party.	High
843			Failure to activate a reception centre located at a safe distance from the release source or meet and register evacuees at	riigii
043			the reception centre.	Low
844			Failure to provide training sessions to ensure that response personnel are competent in emergency response	
044			procedures.	High
845			Failure to test the sour operation, HVP pipeline, or cavern storage facility ERP through tabletop and major exercises.	High
846			Failure to notify the AER Field Centre about a major exercise or to invite the local authority, RHA, or any other	riigii
040			government agency to participate or observe.	Low
8/17	Directive 071 Section 14.11		Failure to have a process for recording the information for the activities in Section 14.11	Low
848	Discuss of Foculon 14.11		Failure of the new licensee to contact the EPA Section within 30 days of the transfer of a licence to discuss a timeframe	
0+0			for submitting a new ERP.	High
849		1	Failure to ensure that the emergency response procedures in place will not be compromised prior to approval of the new	
049			ERP.	High
850			Failure to submit for approval an ERP for all sour well site-specific drilling and/or completion operations listed in Table 4	
000		Technical ERP Requirements		High
051	Directive 071 Section 6.2	-	or for any other situation in which the AER determines that an ERP is required.	
851	Directive 07 1 Section 6.2		Failure to ensure the site-specific ERP addresses the requirements in Section 6.2.	Low

	Regulatory Authority	Compliance Category	Noncompliant Event	Risk Rating
		Compliance Category	(Noncompliance with the requirement)	itisk italilig
852	Directive 071 Section 6.3			High
			Failure to ensure that critical sour well site-specific drilling and/or completion ERPs meet the requirements in Section 6.3.	riigii
853	Directive 071 Section 6.4		Failure to ensure that noncritical sour well site-specific drilling and/or completion ERPs meet the requirements in Section	High
			6.4.	ŭ
854			Failure to leave all components of the wellhead on until the ERP has been approved and is on site.	High
855			Failure to conduct a meeting within 96 hours prior to entering the first sour zone.	High
856			Failure to conduct a critical sour meeting prior to entering the critical sour zone	High
857			Failure to advise the appropriate AER Field Centre 24 hours in advance of a presour meeting and at least 4 business	Low
			days in advance of a critical sour meeting.	LOW
858			Failure to provide at least 4 business days prior notice to the local authority, RHA, and other applicable government	Low
			departments and agencies of the critical sour zone meeting.	LOW
859			Failure to ensure that the critical sour well drilling operations equipment identified in the ERP is located where specified in	Lliab
			the ERP prior to entering the critical sour zone.	High
860			Failure to ensure that the equipment identified in the ERP is located where specified in the ERP prior to conducting the	Llimb
			critical sour well completion, well servicing, or workover operation.	High
861	Directive 071 Tables 5 and 7		Failure to have an approved ERP for situations listed in Tables 5 and 7, for any cavern storage facility storing HVP	Liberte
			product, and for any other situation in which the AER determines that a plan is required.	High
862			Failure to have an ERP approved prior to commencement of operations.	High
863			Failure to address the requirements for ERP content.	Low
864			Failure to submit the requisite information in the supplement to the AER.	Low
865			Failure to submit a supplement for review and approval.	High
866	Directive 071 Section 4.3		Failure to conduct a public involvement program for all members of the public within the proposed EPZ as defined in	
			Section 4.3	High
867			Failure to provide required plan holders with the approved supplement and a copy of the current ERP.	High
868			Failure to ensure that a copy of the approved sour operations ERP and supplement is on site during all drilling,	
			completion, workover, servicing or testing operations.	High
869			Failure to leave all components of the wellhead on until the supplement has been approved and is on site.	High
870			Failure of a nonmember of an oil spill cooperative to have an AER approved plan in place to address a release of any	Ŭ
			liquid product onto land or water.	High
871			Failure of a nonmember of an oil spill cooperative to meet spill response equipment requirements.	High
872			Failure of a member of an oil spill cooperative to attend a training exercise or complete a spill responder course.	Low
873			Failure to notify the appropriate AER Field Centre in writing of a spill equipment deployment training exercise or a	-
0.0			tabletop exercise.	Low
874			Failure to complete the training exercise report within 30 days following an exercise or to make it available to the AER	
J			upon request.	Low
875			Failure of a nonmember of an oil spill cooperative to conduct an exercise in the area where its operations are located.	Low
876			Failure of a nonmember of an oil spill cooperative to demonstrate the same competencies as an oil spill cooperative	
010			member.	Low
<u> </u>	duction Audit	l	memor.	

#### Production Audit

Directive 017: Measurement Requirements for Upstream Oil and Gas Operations

Directive 046: Production Audit Handbook

<u>Directive 007: Volumetric and Infrastructure Requirements</u>

Directive 060: Upstream Petroleum Industry Flaring, Incinerating, and Venting

Dilec	rective 600. Opsiteant Fetroleum industry Franting, incinerating, and venting					
877	Directive 017	Production Measurement and	Inaccurate header markings	Low		
		Reporting		LOW		
878	Directive 017		Delivery point hydrocarbon liquid meas. device(s) does not exist, is not installed or used correctly, or not in use.	High		
879	Directive 017		Delivery point gas meas. device(s) does not exist, is not installed or used correctly, or not in use.	High		
880	Directive 017		Delivery point produced water meas. device(s does not exist, is not installed or used correctly, or not in use.	Low		
881	Directive 017		Delivery point fresh / brackish water meas. device(s) does not exist, is not installed correctly, or not in use	Low		
882	Directive 017		Gas meter(s) does not exist, is not installed or used correctly, or not in use.	High		
883	Directive 017		Inaccurate inventory determination.	Low		

			Noncompliant Event	
	Regulatory Authority	Compliance Category	(Noncompliance with the requirement)	Risk Rating
884	Directive 017		Inaccurate proration testing procedures.	Low
885	Directive 017		Inappropriate liquid sampling and S&W procedures.	Low
886	Directive 017		Inaccurate field production records.	Low
887	Directive 017		Inaccurate meas. of oil produced from a gas well.	Low
888	Directive 017		Injection / disposal meas. device(s) does not exist, is not installed or used correctly, or not in use.	Low
889	Directive 017		Inaccurate fuel meas.	Low
890	Directive 017		Inaccurate vent meas.	High
891	Directive 017		Inaccurate flare meas.	High
892	Directive 017		Inaccurate gas chart quality and documentation.	Low
893	Directive 017		Meas. device(s) calibrated/proven inappropriately and not within required frequency.	Low
894	Directive 017		GIS inaccurately determined.	Low
895	Directive 017		GE inaccurately determined.	Low
896	Directive 017		WGR inaccurately determined and to required frequency.	Low
897	Directive 017		GOR inaccurately determined and to required frequency.	Low
898	Directive 017		Pressure and temperature corrections inaccurately determined.	Low
899	Directive 017		Inaccurate fuel gas estimation.	Low
900	Directive 017		Inaccurate ruer gas estimation.	High
901	Directive 017		Inaccurate flare gas estimation.	High
			Inaccurate flash-gas estimation.	
902	Directive 017 Directive 017			Low
903			Inaccurate gas volume calculations.	High
904	Directive 017		Inadequate production audit trail.	High
905	Directives 017 and 007		Inaccurate accounting and reporting of metering difference(s).	Low
906	Directives 017 and 007		Inaccurate accounting and reporting of proration factor(s).	Low
907	Directives 017 and 007		Inaccurate accounting and reporting of actual hydrocarbons liquid production.	High
908	Directives 017 and 007		Inaccurate accounting and reporting of actual gas production.	High
909	Directives 017 and 007		Inaccurate accounting and reporting of actual water production.	Low
910	Directives 017 and 007		Inaccurate accounting and reporting of gas dispositions.	High
911	Directives 017 and 007		Inaccurate accounting and reporting of water dispositions.	Low
912	Directives 017 and 007		Inaccurate accounting and reporting of hydrocarbon liquid inventories.	Low
913	Directives 017 and 007		Inaccurate accounting and reporting of water inventories.	Low
914	Directives 017 and 007		Inaccurate accounting and reporting of hydrocarbon liquid receipts.	High
915	Directives 017 and 007		Inaccurate accounting and reporting of gas receipts.	High
916	Directives 017 and 007		Inaccurate accounting and reporting of water receipts.	Low
917	Directives 017 and 007		Inaccurate accounting and reporting of load fluid.	Low
918	Directives 017 and 007		Inappropriate application of GEF.	Low
919	Directives 017 and 007		Inaccurate determination of estimated hydrocarbon liquid production.	Low
920	Directives 017 and 007		Inaccurate load fluid procedures.	Low
921	Directives 017 and 007		Inaccurate accounting and reporting of actual water production.	Low
922	Directive 017		Inaccurate determination of estimated hydrocarbon liquid production.	Low
923	Directive 017		Inaccurate determination of estimated gas production.	Low
924	Directive 017		Inaccurate determination of estimated water production.	Low
925	Directive 017		Gas and condensate composition and density not updated to the required frequency.	Low
926	Directive 017		Inappropriate application of GOR.	Low
927	Directive 017		Inappropriate application of GIS.	Low
	Directive 017		Inappropriate application of PC / TC.	Low
	Directives 007 and 060		Linked well types inappropriate for battery.	Low
	Directives 007 and 017		Well meas. inappropriate for battery.	Low
	Directive 017		No approval when required.	High
	Directive 017		Test gas or effluent meas. device(s) does not exist, is not installed or used correctly, or not in use.	Low
	Directive 017		ECF inaccurately determined and to required frequency.	Low
	Directive 017	1	Inappropriate application of WGR.	Low
	Directive 017		Inappropriate application of ECF.	Low
900	DILCOUAE O I I	1	Imappropriate application of Eor.	LUW

	Regulatory Authority	Compliance Category	Noncompliant Event	Risk Rating
			(Noncompliance with the requirement)	Kisk Kaling
936	Directive 017		Measurement schematic does not exist.	High
937	Directive 007		Inaccurate accounting and reporting of hydrocarbons liquid dispositions.	High
938	Directive 017		Inaccurate determination of estimated gas production.	Low
939	Directive 017		Inaccurate determination of estimated water production.	Low
940	Directive 007		Inaccurate well production hours reported.	Low
941	Directive 017		Test hydrocarbon liquid meas. device(s) does not exist, is not installed or used correctly, or not in use.	Low
942	Directive 017		Test water meas. device(s) does not exist, is not installed or used correctly, or not in use.	Low
943	Directive 017		Hydrocarbon liquid blending factor inaccurately determined.	Low
944	Directive 017		Inappropriate application of blending factor.	Low
945	Directives 060 and 007		Inaccurate reporting of flare gas.	High
946	Directives 060 and 007		Inaccurate reporting of vent gas.	High
947	Directive 007		Inaccurate reporting of fuel gas.	Low
948	Directive 007		Inaccurate reporting of processing shrinkage.	Low
949	Directive 007		Inaccurate reporting of acid gas.	Low
950	Directive 007		Inaccurate Registry facility sub-type.	Low
951	Directive 007		Inaccurate Well Status(es).	Low
952	Directive 017 Section 1.9		Measurement schematic contents do not meet requirement in Directive 17, section 1.9. (Effective September 11, 2014).	High
953	Directive 017 Section 1.9		Measurement schematic content changes not updated monthly to the production accountant in time. (Effective	Llimb
			September 11, 2014).	High
954	Directive 017 Section 1.9.2		Measurement schematic master copy changes not updated or verification of revisions or confirmation of no change not	Llimb
			done annually. (Effective September 11, 2014).	High
955	Directive 017 Section 1.9.4		The measurement schematic was not provided to the listed external parites upon request. (Effective September 11,	Llimb
			2014).	High
Direct	ive 076: Operator Declaration Rec	garding Measurement and Reporting	Requirements	•
956		Enhanced Production Audit	Failure to submit an annual Declaration on AER measurement and reporting requirements.	I Park
		Program (EPAP)		High
957		3 , , ,	Failure of the declaration to cover the 12 calendar months ending in the declaration month, or failure to submit by the end	
			of the month following the declaration month.	Low
958			Failure to submit the first Declaration within two years of the effective date of this Directive, or within two years of the first	
			submission to the PRA.	High
959			Failure to submit the annual Declaration electronically using the AER's EPAP system.	Low
960			Failure to submit the annual Declaration on behalf of and in the name of one or more senior executives.	Low
961			Failure to provide, upon request, signed paper copies of Declarations as confirmation of electronic submission for the last	
			three years.	Low
962			Failure of the Declaration to include all facilities operated by the operator at the end of the Declaration period.	Low
963			Failure to design, maintain, and operate controls that ensure compliance with AER measurement and reporting	
			requirements.	High
964			Failure to declare, and provide explanation for, the lack of controls over AER measurement and reporting requirements.	
				Low
965			Failure to maintain up-to-date documentation on controls and associated evaluation procedures over AER measurement	
			and reporting requirements, or failure to provide this information through the AER's EPAP system on request.	Low
966			Failure to conduct reasonable and adequate evaluations of controls over AER measurement and reporting requirements.	
			3	High
967			Failure to declare the number of evaluations of controls and an assessment of the effectiveness of the controls.	Low
968			Failure to maintain three years documentation of evaluation of controls processes and results, or failure to provide this	
			information through the AER's EPAP system on request.	Low
969			Failure to prepare and implement a reasonable remediation plan for each control deficiency.	High
970			Failure to investigate, prepare and implement a reasonable remediation plan addressing AER-identified possible	J
]			noncompliance with AER measurement and reporting requirements.	High
971			Failure to report a remediation plan electronically through the AER's EPAP system, as directed by the AER.	Low
<u> </u>	ivo 092: Hydraulia Eracturing Cu	1	1. S.	2000

	Pogulatory Authority	Compliance Category	Noncompliant Event	Risk Rating
	Regulatory Authority	Compliance Category	(Noncompliance with the requirement)	KISK Katiliy
972	Directive 083 Section 1.3	Hydraulic Fracturing	Failure to provide documents, records, and/or plans to the AER as requested.	Low
973	Directive 083 Section 2.3.1	,	Failure to obtain AER approval when using a barrier system other than a single- or dual-barrier system.	Low
974	Directive 083 Section 2.3.2		Failure to have a dual-barrier system that consists of a) a primary barrier system capable of containing and isolating the	
			fracture fluids, b) a secondary barrier system capable of providing well control in the event of a failure of the primary	Low
			barrier, and c) a monitoring system to detect and allow for a response to a primary barrier failure.	
975			Cement of the primary barrier system extends above the overlying porous interval and cannot be considered a dual	
			barrier system.	Low
976	Directive 083 Section 2.3.3		Failure to use hydraulic fracturing fluids that would not cause an adverse effect on nonsaline aquifers and failed to	12.1
			cement the next casing string to surface when the surface casing was not set to the BGWP.	High
977			Failure to document the load capacity and safety factors during the design of its casing and failure to document the	Low
			adjusted maximum pressure, when using a single-barrier system.	Low
978			Failure to use an operating practice such as the Primary and Remedial Cementing Guidelines (DACC) or a technically	Low
			equivalent standard in the planning and executing of its cementing program.	Low
979			Failure to demonstrate integrity of the casing and cement before conducting operations.	Low
980			Failure to demonstrate integrity of casing during fracture operations and failure to demonstrate integrity of casing with	Low
			final completion operations or within 90 days of the fracture operation.	
981			Failure to perform SCVF/GM or SCAF as required.	High
982	Directive 083 Section 3.3.1		Failure to manage the risks of an interwellbore communication event.	High
983	Directive 083 Section 3.3.2		Failure to have a documented hydraulic fracturing program.	High
984			Failure to include all elements noted in 3.3.2(10) in the hydraulic fracturing program.	High
985			Failure to have a copy of its hydraulic fracturing program at the subject well site for the duration of the operation.	High
986	Directive 083 Section 3.3.3		Failure to have a documented well control plan for each at-risk offset well that includes all elements noted in 3.3.3(12).	High
987			Failure to have a copy of its at-risk offset well control plan at the subject well site for the duration of the operation.	High
988	Directive 083 Section 3.3.4		Failure to notify licensees of at-risk offset wells of its planned hydraulic fracturing program.	High
989			Failure to engage licensees of at-risk offset wells and failed to make reasonable efforts to develop mutually acceptable	High
990			well control plans.  Failure to contact the appropriate AER field centre when an at-risk offset well have an inactive licensee, and it is not an	
990				High
991			orphan well.  Failure to immediately notify the licensee of the offset well upon becoming aware of any communication event with an	-
991			offset well.	High
992	Directive 083 Section 4.3.1		Hydraulic fracturing operations had an adverse effect on a nonsaline aquifer.	High
993	Directive 003 Section 4.3.1		Failure to conduct a risk assessment as outlined in Directive 083.	High
994	Directive 000 dection 4.0.2		Failure to include all elements ((a) through (h)) within the risk assessment.	High
995			Hydraulic fracturing fluids that may cause adverse effect on nonsaline aquifers were used when the modeled vertical	Ü
000			fracture distance multiplied by a factor of two is within, or may extend above, the BGWP.	High
996	Directive 083 Section 5.3		Hydraulic fracturing operations have an adverse effect on the water well's quality or quantity.	High
997			Hydraulic fracturing operations are initiated within restricted area near a water well.	High
998	Directive 083 Section 6.3		Hydraulic fracturing operations caused a surface impact.	High
999			Hydraulic fracturing operations conducted within 100 vertical m of the top of the bedrock surface.	High
1000	Directive 083 Section 7.1		Have initiated a nitrogen fracturing operation within a zone that extends 200 m horizontally from the surface location of a	Ū
			water well to 50 m vertically from the total depth of the water well.	High
	Directive 083 Section 7.2		Have initiated a nitrogen fracturing operations within 50 vertical m of the top of the bedrock surface.	High
1002	Directive 083 Section 7.3		Maximum injected volume of nitrogen exceeded 15,000 standard cubic metres of nitrogen per vertical metre of coal.	Low
1003	Directive 083 Section 8		Failure to notify the AER a minimum of five days prior to the pressure test of surface equipment for hydraulic fracturing	Low
			operations as per the Hydraulic Fracturing Notification Submission procedure found on the AER website.	LUW
1004			After an operation was demobilized and remobilized at a later date, licensees failed to re-notify the AER via the Hydraulic	
			Fracturing Notification Submission procedure a minimum of five days prior to the pressure test of surface equipment for	Low
			hydraulic fracturing operations.	
1005			Failure to immediately notify the appropriate AER field centre of a well integrity fails.	High
1006			Failure to immediately notify the appropriate AER field centre upon becoming aware of any communication event with an	High
			offset well, a nonsaline aquifer, or a water well.	9

	Descriptions Authority	Compliance Cotonomi	Noncompliant Event	Diel Detine
	Regulatory Authority	Compliance Category	(Noncompliance with the requirement)	Risk Rating
1007	OGCA Section 39(1)(d) and	Hydrocarbon Cavern Storage	Failure to conduct a mechanical integrity test in accordance with CSA Z341.2 that is capable of identifying any leaks in a	High
	CSA Z341.2-06		wellhead, seals, product casing, casing seat, and cavern cavity.	9
On-lin	e access to the Field Inspection	System [FIS] is available through	h the Digital Data Submission [DDS] system	
	ive 036: Drilling Blowout Prevention			
	BOP Preventer System BOP Preventer (BOP)	Drilling Operations	No BOP(s) installed on well.	
	Equipment			High
1009			BOP pressure rating and/or stack arrangement (including spools) does not meet minimum requirements for the well classification.	High
1010			BOPs not adequately supported and/or secured (to substructure).	Low
1011	Metallic Material for Sour Service		All pressure-containing components within the BOP, bleed-off, and kill systems do not meet <i>NACE MR0175</i> requirements (critical sour wells).	High
1012	Pipe Rams		Improper pipe ram size for drill pipe or tubulars that are in use.	High
1013			Pipe rams changed out and pressure test on rams not conducted.	High
1014	Casing Rams		Casing rams installed and pressure test on rams not conducted.	High
	Ram Locking Devices (Hand Wheels)		Ram locking devices not readily available, incorrectly sized, and/or cannot be installed.	Low
1016	Double Drilling/Studding		Double-drilled/studded BOP equipment (including spools) does not meet requirements.	High
	Flange- and Clamp-Type Connections		Flange- or clamp-type connections not designed in accordance with standards and/or certification not provided.	High
1018	Connections		Bolts loose and/or missing from BOP system (spools/BOP outlets, flanges, etc.).	Low
1019			Connection(s) loosened or taken apart and pressure test on connection(s) not conducted.	High
	Casing Bowls		Sliplock type, threaded, or weld-on casing bowl not used on class I wells.	High
1021	Casing Dowis		Threaded or weld-on casing bowl not used on well classes II to VI and critical sour wells.	High
	Sliplock		Sliplock type casing bowl not installed and/or maintained in accordance with manufacturer's specifications.	High
	Threaded		Threaded casing bowl not properly installed (with regard to make-up procedures, torque, and the use of thread compounds).	High
1024	Welded		Casing bowl not welded in accordance with acceptable procedures.	High
	Casing Bowl Flange, Outlet(s), and Valve(s)		Casing bowl flange not integral part of casing bowl.	High
1026	and valve(s)		Casing bowl does not have a side outlet and valve (well classes I, II, III, and IV).	High
1027			Casing bowl does not have flanged or studded outlet(s) and valve(s) (classes V and VI and critical sour wells).	High
	Pressure Rating		Casing bowl and/or casing bowl valve does not meet minimum pressure rating requirements.	High
1029	1 resoure realing		Casing bowl specifications not available at the rig.	Low
	Drill-Through Components		Drill-through components above BOPs not removable with pipe/tools in the hole.	Low
	Stabbing Valve & Inside BOP		Stabbing valve and/or closing handle not on location.	High
1032	Stabbing valve a melae 2 e.		Inside BOP not on location.	High
1033			Stabbing valve not certified as being capable of opening with 7000 kPa pressure below the valve (well classes V and VI and critical sour wells).	High
1034			Stabbing valve and/or hanger cap not full opening.	Low
1035			Stabbing valve in closed position.	Low
1036			Stabbing valve and/or inside BOP not operable.	High
1037			Stabbing valve and/or valve operating wrench not readily accessible.	High
1038			Inside BOP not readily accessible.	High
1039			Drill string crossover sub(s) not available or readily accessible.	High
1040			Stabbing valve carrying handles and/or hanger cap not provided (when required).	Low
1041			Stabbing valve and/or inside BOP cannot be stripped into the well (carrying handles and/or hanger cap not removable).	High
1042			Stabbing valve and/or inside BOP does not meet NACE MR0175 standards (critical sour well).	High
	Lower Kelly Cock Valve		Lower kelly cock not installed and/or not operable (well classes V and VI and critical sour wells).	High
1044			Lower kelly cock not equipped with valve operating wrench.	High
1045			Lower kelly cock not certified as being capable of opening with 7000 kPa pressure below the valve.	High

	Pogulatory Authority	Compliance Category	Noncompliant Event	Dick Boting
	Regulatory Authority	Compliance Category	(Noncompliance with the requirement)	Risk Rating
1046			Lower kelly cock does not meet NACE MR0175 standards (critical sour well).	High
1047	Stripping Operations		Stripping tubulars through an annular preventer that is part of the required BOP equipment (does not apply during well control situation).	High
1048			Stripping drill pipe through a pipe ram that is part of the required BOP equipment.	High
1049	Shop Servicing and Testing of		BOP certification (shop servicing and testing) does not meet minimum requirements.	
	BOPs, Drill-Through Spools,			1
	Drill-Through Adapter Flanges			High
	and Flexible Bleed-off and Kill-			1
	line Hoses			
1050			BOP certification (shop servicing and testing) has expired.	Low
1051			Shop servicing, testing, and storage documents not available at the rig.	Low
10-0	Bleed-off System>Class I Wells			
	Diverter Line		Diverter line does not meet minimum size and/or minimum pressure rating requirements.	High
1053	<u> </u>		HCR not installed.	High
1054			Fluid turns and/or pipe extensions between drilling spool and the innermost valve.	High
1055			Fluid turns in diverter line not made using right-angle connections constructed of tees and crosses blocked on fluid turns.	High
1056			Diverter line connections not flanged, hammer union, threaded, or bolted groove lock type.	High
1057			Diverter line improperly connected (e.g., loose unions, bolts, etc.).	Low
1058			Diverter line not connected.	High
1059			Diverter line does not terminate in a flare pit or flare tank.	Low
1060			End of diverter line does not terminate the minimum required distance from the wellbore.	Low
1061			Diverter line not adequately secured.	Low
1062			Fluid turn installed at end of diverter line (flare pit in use).	Low
1063			Diverter line not self-draining and no means incorporated to ensure that fluid can be drained (winter operations only).	High
1064			Visual inspection of diverter line not conducted and/or recorded.	Low
1005	Well Classes II to VI and Critical	Sour Wells		<u> </u>
1065	Bleed-off Line(s)		Bleed-off line(s) does not meet minimum design requirements (e.g., size, number of lines, valves, and minimum pressure rating).	High
1066			Bleed-off line flange- or clamp-type connections not designed in accordance with standards and/or certification not provided.	High
1067			Bolts loose and/or missing from bleed-off line.	Low
1068			HCR not installed (primary bleed-off line).	High
1069			HCR in open position during normal drilling operation.	Low
1070			Manual valve(s) (next to HCR) in the closed position.	Low
1071			Fluid turns and/or pipe extensions between drilling spool/BOP outlet and innermost valve.	High
1072			Manual valve is innermost valve and fluid turns and/or piping extensions installed between HCR and manual valve.	High
1073			More than one valve on secondary bleed-off line in the closed position.	Low
1074			Innermost valve on the secondary bleed-off line in open position and fluid turns and/or piping extensions installed between the valves.	Low
1075			Manual valve(s) in bleed-off line(s) not operable.	High
1076			Valve handle(s) not installed on bleed-off line valve(s).	Low
1077			Fluid turn(s) in bleed-off line(s) not made using right-angle connections constructed of tees and crosses blocked on fluid turns.	High
1078	+		Bleed-off line(s) not connected to the drilling spool/BOP outlet and/or choke manifold.	High
1079			Bleed-off line(s) not adequately secured/supported.	Low
1080			Bleed-off line(s) does not meet NACE MR0175 standards (critical sour wells).	High
1081	Choke Manifold		The choke manifold does not meet the minimum pressure rating and/or conform to the configuration (valves, chokes,	_
			piping, etc.) for the class of well being drilled.	High
1082			The remote choke is not a nonrubber sleeved choke (critical sour wells).	Low
1083			No adjustable choke specifications to identify the fully open and the fully closed position on the choke body and/or on the	Low
			actuator.	Low

	Regulatory Authority	Compliance Category	Noncompliant Event	Risk Rating
	Regulatory Authority	Compliance Category	(Noncompliance with the requirement)	NISK Natility
1084			Valve handles missing on choke manifold valve(s).	Low
1085			Choke manifold valve(s) not operable.	High
1086			Choke manifold casing pressure gauge not installed or readily accessible for installation at choke manifold and/or remote	Low
			choke control.	Low
1087			Choke manifold and/or remote choke control casing pressure gauge out of calibration.	Low
1088			Choke manifold and/or remote choke control casing pressure gauges not available for each wing of choke manifold.	High
1089			Choke manifold and/or remote choke control casing pressure gauge does not have readable increments of 250 kPa or	Low
			less (only surface casing is set).	LOW
1090			MACP exceeds choke manifold and/or remote choke control casing pressure gauge range (only surface casing is set).	Low
1091			Choke manifold and/or remote choke control casing pressure gauge does not have readable increments of 500 kPa or	Low
			less (intermediate casing is set).	Low
1092			Range of choke manifold and/or remote choke control casing pressure gauge less than the pressure rating of the	Low
			required BOP system (intermediate casing is set).	LOW
1093			Isolation valve not provided for choke manifold and/or remote choke control casing pressure gauge(s).	High
1094			Choke manifold does not meet NACE MR0175 standards (critical sour well).	High
1095			Choke manifold not located outside the substructure and/or readily accessible.	High
1096	Remote Drill Pipe Pressure		Remote drill pipe pressure gauge(s) not provided or readily accessible for installation at choke manifold and remote	
	Gauge Assembly at Choke		choke location (if in use and/or required).	High
	Control			
1097			Remote drill pipe pressure gauge inadequate (e.g., out of calibration).	Low
1098			Isolation valve(s) not provided for remote drill pipe pressure gauge at choke manifold and remote choke location (if in use	High
			and/or required).	riigii
	Mud-Gas Separator(s) (Degasser)			
1099	Primary Degasser		Primary degasser does not meet minimum sizing requirements for well depth.	High
1100			Primary degasser improperly designed (open bottom, construction, etc.).	High
1101			Primary degasser not connected to a separate vent line(s).	High
1102			Primary degasser not ready for service and fully connected.	High
1103			Primary degasser located in trip tank.	High
1104	Secondary Degasser (Critical Sour Wells)		Secondary degasser does not meet minimum sizing requirements for well depth.	High
1105	ŕ		Secondary degasser improperly designed (construction, etc.).	High
1106			Secondary degasser not connected to a separate vent line(s).	High
1107			Secondary degasser not ready for service and fully connected.	High
1108			Secondary degasser located in trip tank.	High
1109	Degasser Inlet		Degasser inlet line does not meet minimum pressure rating requirements for class of well.	High
1110			Degasser inlet line does not meet minimum sizing requirements for well depth.	High
1111			Degasser inlet line connections not flanged, hammer union, or threaded.	High
1112			Fluid turns in degasser inlet line not made using right-angle connections constructed of tees and crosses blocked on fluid	High
			turns.	riigii
1113			Degasser inlet line improperly connected (e.g., loose unions, bolts).	Low
1114			Degasser inlet line not connected to the choke manifold and degasser.	High
1115			Valve(s) or other restrictions in the degasser inlet line (downstream of the last valve on the choke manifold).	Low
1116			Degasser inlet line not adequately secured.	Low
1117			Visual inspection of degasser inlet line not conducted and/or recorded.	Low
1118			Separate degasser inlet lines not installed from each manifold wing to each degasser (critical sour well with two	High
			degassers deployed).	1 11911
1119			Wall thickness test on degasser inlet line not conducted as required (where a portion of the line is submerged in drilling	Low
			fluid) and/or documentation records of the wall thickness test not available at the rig site.	LOW
	Degasser Vent Line		Vent line not made of suitable material composition (e.g., does not maintain its shape).	Low
1121			Vent line connections do not have adequate seals.	Low
1122			Vent line does not meet minimum sizing requirements for well depth and/or mud tank fluid level (Table 1).	High

	Regulatory Authority	Compliance Category	Noncompliant Event	Risk Rating
	Regulatory Authority	Compliance Category	(Noncompliance with the requirement)	NISK Natility
1123			Vent line not self-draining and no means incorporated to ensure that fluid can be drained.	Low
1124			Vent line not void of fluids during drilling operations.	Low
1125			Vent line not adequately secured to mud tank.	Low
1126			End of vent line does not terminate 50 m (minimum) from the wellbore in a flare pit or flare tank.	Low
1127			Separate vent lines not installed from each degasser to the flare pit/tank (critical sour well with two degassers deployed).	High
1128			Wall thickness test on degasser vent line not conducted as required (where a portion of the line is submerged in drilling fluid) and/or documentation records of the wall thickness test not available at the rig site.	Low
1129	Flare Line(s)		Flare line does not meet minimum pressure rating requirements for class of well.	High
1130			Flare line does not have a minimum nominal diameter of 76.2 mm throughout.	High
1131			Fluid turns in flare line not made using right-angle connections constructed of tees and crosses blocked on fluid turns.	High
1132			Flare line connections not flanged, hammer union (metal to metal), or threaded.	High
1133			Flare line improperly connected (e.g., loose unions, bolts).	Low
1134			Flare line not connected to the choke manifold.	High
1135			Flare line does not terminate in a flare pit or flare tank.	Low
1136			End of flare line does not terminate 50 m from the wellbore.	Low
1137			Flare line not adequately secured.	Low
1138			Fluid turn installed at end of flare line (flare pit in use).	Low
1139			Flare line not self-draining and no means incorporated to ensure that fluid can be drained (winter operations only).	High
1140			Visual inspection of flare line not conducted and/or recorded.	Low
1141			Two flare lines (minimum) not installed (well classes V and VI and critical sour wells).	High
1142	Flare Pits		Flare pit not constructed to contain a minimum of 8 m <sup>3</sup> of fluid.	Low
1143			Flare pit not constructed with side and back walls 2 m above ground level.	Low
1144			Flare pit not constructed to resist erosion of a high-pressure flow of gas or liquid.	Low
1145			Flare pit not located a minimum distance of 50 m from the wellbore.	Low
	Flare Tanks		Flare tank not constructed of steel.	High
1147			Flare tank does not have an impingement plate.	Low
1148			Flare tank does not have a minimum of 8 m <sup>3</sup> capacity.	Low
1149			Flare tank not open to atmosphere.	High
1150			Flare tank not the minimum required distance from the wellbore.	Low
1151			Flare tank does not have a minimum 50.8 mm liquid loading steel line that is connected at all times extending a minimum of 9 m from the tank.	Low
1152			Liquid in flare tank cannot be isolated from the vent line.	Low
	Kill System			2011
1153	Well Classes II-IV and Critical Sour Wells		Kill system does not meet minimum design requirements (e.g., size, number of lines, valves, and minimum pressure rating).	High
1154			Flanged check valve(s) not installed in the kill system (critical sour well).	High
1155			Fluid turns and/or pipe extensions between the drilling spool/BOP outlet and the first manual valve.	Low
1156			Valve next to the drilling spool/BOP outlet in the open position.	High
1157			Valve(s) in the kill system not operable and/or valve handle(s) not installed.	Low
1158			Isolation valve not installed on the mud line/standpipe.	Low
1159			Improper connections used in kill line (from the last valve on the drilling spool/BOP outlet to the mud line/standpipe).	Low
1160			Threaded fittings, hammer unions, flange, or clamp-type connections used in the kill system not properly installed and/or made up (this includes all studs, bolts, and nuts, etc.).	Low
1161			Kill line disconnected in more than one place.	Low
1162			The portion of the kill system from the drilling spools/BOP outlets up to and including the check valves does not meet	
			NACE MR0175 standards (critical sour wells).	Low
1163	Well Classes V and VI and Critical Sour Wells		Kill system does not meet minimum design requirements (e.g., size, number of lines, valves, and minimum pressure rating).	High
1164			Isolation valve(s) not installed on the mud line/standpipe.	Low
1104	l	<u>l</u>	postation variety) not installed on the mad line standpipe.	LUW

	Regulatory Authority	Compliance Category	Noncompliant Event	Risk Rating
	Regulatory Authority	Compliance Category	(Noncompliance with the requirement)	ixisk ixatilig
1165			Fluid turns and/or pipe extensions between the drilling spool/BOP outlet and the first manual valve.	Low
1166			Valve next to the drilling spool in the open position.	Low
1167			Valve(s) in the kill system not operable and/or valve handle(s) not installed.	Low
1168			Threaded fittings, hammer unions, flange, or clamp-type connections used in the kill system not properly installed and/or	Low
			made up (this includes all studs, bolts, nuts, etc.)	Low
1169			Improper connections used in kill line (from the last valve on the drilling spool/BOP outlet to the mud line/standpipe).	Low
1170			Kill line disconnected in more than one place.	Low
1171			The portion of the kill system from the drilling spools/BOP outlets up to and including the check valves does not meet	Low
			NACE MR0175 standards (critical sour wells).	LOW
	Flexible Hoses			
1172	Bleed-off, Kill, or Diverter Line(s)		Flexible hose used in bleed-off, kill, or diverter line(s) does not meet the minimum required size and/or working pressure.	High
1173			Flexible hose used in bleed-off, kill, or diverter line(s) does not have factory-installed connections.	High
1174			Flexible hose used in bleed-off, kill, or diverter line(s) (within 7 m of wellbore) does not have adequate fire sheathing.	High
1175			Flexible hose used in bleed-off, kill, or diverter line(s) does not maintain its original shape and/or contains bends that	1
			exceed the manufacturer's specified minimum bending radius.	Low
1176			Flexible hose used in bleed-off, kill, or diverter line(s) is not supported to prevent stresses on connecting valves and	Low
			piping and/or not protected from mechanical damage.	Low
1177			Non-flanged flexible hose used in bleed-off, kill, or diverter line(s) is not secured.	Low
1178			Flexible hose used in the diverter line(s) within 9 m of the flare pit or flare tank.	Low
1179			Metallic components of flexible hose(s) used in the bleed-off line(s) do not meet NACE MR0175 standards (critical sour wells).	High
1180			Elastomeric components of flexible hose(s) used in the bleed-off or kill line(s) not suitable for sour service (critical sour wells).	High
1181			Three-year shop servicing and testing of flexible hose used in bleed-off, kill, or diverter line(s) does not meet minimum	
1101			requirements or certification has expired.	Low
1182	Flare and Emergency Flare		Flexible hose used in flare and emergency flare line(s) does not meet the minimum required size and/or working	
1102	Line(s)		pressure.	High
1183			Flexible hose used in flare or emergency flare line(s) does not have factory-installed connections.	High
1184			Flexible hose used in flare or emergency flare line(s) does not maintain its original shape and/or contains bends that	· ·
			exceed the manufacturer's specified minimum bending radius.	Low
1185			Flexible hose used in flare or emergency flare line(s) is not supported and/or not protected from mechanical damage.	Low
1186			Non-flanged flexible hose used in flare or emergency flare line(s) is not secured.	Low
1187			Flexible hose used in flare or emergency flare line(s) within 7 m of wellbore does not have adequate fire sheathing.	High
1188			Flexible hose used in the flare or emergency flare line(s) within 9 m of the flare pit or flare tank.	Low
1189	Degasser Inlet Line(s)		Flexible hose used in the degasser inlet line(s) does not meet minimum pressure rating requirements for class of well.	High
1190	-		Flexible hose used in degasser inlet line(s) does not meet the minimum sizing requirements for well depth.	High
1191			Flexible hose used in degasser inlet line(s) does not have factory-installed connections.	High
1192			Flexible hose used in degasser inlet line(s) does not maintain its original shape and/or contains bends that exceed the manufacturer's specified minimum bending radius.	Low
1193			Flexible hose used in degasser inlet line(s) is not supported and/or not protected from mechanical damage.	Low
1194			Non-flanged flexible hose used in degasser inlet line(s) is not secured.	Low
	Degasser Vent Line		Flexible hose used in degasser vent line(s) does not meet the minimum required size.	High
1196	-		Flexible hose used in degasser vent line(s) does not maintain its original shape throughout its entire length.	Low
1197			Flexible hose used in the degasser vent line(s) within 9 m of the flare pit or flare tank.	Low
	Winterizing		· · · · · · · · · · · · · · · · · · ·	
1198	Winterizing BOP, Accumulator,		Insufficient heat provided to the BOP stack and/or all associated valves and/or choke manifold and/or accumulator	طحنانا
	Bleed-off, and Kill Systems		system to maintain their effectiveness.	High
1199			Bleed-off and/or kill and/or diverter and/or flare and/or degasser inlet line(s) are not empty or filled with a nonfreezing fluid or heated during cold weather drilling operations.	High
	BOP Control Systems		ps. noctor during cold modulior drilling operations.	
	20. Control Oyatema			

Pogulatory	Authority	Compliance Category	Noncompliant Event	Risk Rating
Regulatory	Authority	Compliance Category	(Noncompliance with the requirement)	KISK Kaling
1200 Accumulator S	System		Accumulator pressure dropped below 8400 kPa after function test (of all required BOP components) with the recharge	I. Cd-
	•		pump off.	High
1201			Accumulator specifications not available at the rig.	Low
1202			Accumulator hydraulic lines not equal to or greater than the working pressure of the accumulator system.	High
1203			Nonsteel hydraulic BOP hoses located within 7 m of the wellbore not equipped with adequate fire-resistant sheathing.	High
1204			Fire-resistant sheathing significantly damaged on nonsteel hydraulic BOP hoses located within 7 m of the wellbore.	High
1205			BOP hydraulic line end fittings located within 7 m of the wellbore not fire rated.	High
1206			Accumulator system not equipped with an automatic pressure-controlled primary recharge pump.	High
1207			Accumulator system not equipped with two separate automatic pressure-controlled recharge (primary and secondary)	High
			pumps for well classes V and VI and critical sour wells.	riigii
1208			Accumulator recharge pump (primary or secondary) failed to recharge the accumulator within 5 minutes.	Low
1209			Check valve not installed to allow for replacement of accumulator recharge pump.	High
1210			BOP component(s) failed to close within the required time.	Low
1211			Accumulator not equipped with an accurate gauge showing accumulator system pressure.	High
1212			Fittings and/or gauge not available to obtain accumulator bottle(s) precharge pressure.	Low
1213			Accumulator not readily accessible.	Low
1214			Accumulator not housed.	Low
1215			Accumulator not adequately heated to maintain its effectiveness.	Low
1216			Accumulator not located at least 15 m from the wellbore.	Low
1217			Accumulator vent not installed so that venting takes place outside the building (side or top of building).	Low
1218			Accumulator not connected to a backup nitrogen system.	High
1219 Backup Nitrog	gen (N2) System		Backup N <sub>2</sub> system improperly connected to accumulator system.	High
1220			Gauge not installed (or readily available for installation) to determine the backup N <sub>2</sub> system pressure.	Low
1221			Backup N <sub>2</sub> system not readily accessible.	Low
1222			Backup N <sub>2</sub> system not housed.	Low
1223			Backup N <sub>2</sub> system not adequately heated to maintain its effectiveness.	Low
1224			Backup N <sub>2</sub> system not located at least 15 m from the wellbore.	Low
BOP Control				
1225 Floor Controls	8		BOP floor controls not provided for each BOP component and the HCR in the diverter/bleed-off line.	High
1226			BOP floor controls not located near the driller's position.	Low
1227			BOP floor controls not capable of opening and closing each BOP component and the HCR in the diverter/bleed-off line.	High
1228			BOP floor control not properly installed and/or correctly identified, and/or function operations (i.e., open and close) not identified.	Low
1229			BOP floor controls not equipped with an accurate gauge indicating the accumulator system pressure.	Low
1230 Remote Contr	rols		BOP remote controls not provided for each BOP component and the HCR in the diverter/bleed-off line.	High
1231			BOP remote controls not capable of opening and closing each BOP component and the HCR in the diverter/bleed-off line.	High
1232			BOP remote control not properly installed and/or correctly identified, and/or function operations (i.e., open and close) not identified.	Low
1233			BOP remote controls not equipped with an accurate gauge indicating the accumulator system pressure.	Low
1234			BOP remote controls not located a minimum of 15 m from the well.	Low
1235			BOP remote controls not readily accessible.	Low
1236			BOP remote controls not housed.	Low
1237			BOP remote controls not adequately heated to maintain their effectiveness.	Low
1238 Master Hydra Manifold Loca			Master hydraulic control manifold not located at the remote position (critical sour wells).	Low
1239 BOP Function			BOP(s) or HCR on the diverter/bleed-off line failed to operate from the floor position.	High
1240			BOP(s) or HCR on the diverter/bleed-off line failed to operate from the remote position.	High
1241 Daily and Wee	ekly		Required BOP/HCR function tests not conducted.	Low
1242 Recording			Required BOP/HCR function tests not recorded in the drilling logbook.	Low
1243 Accumulator S	Sizing Calculations		Accumulator has insufficient usable fluid available to operate the required BOP components and retain on the	
			accumulator system a minimum pressure of 8400 kPa (sizing calculations performed).	High

	Pogulatory Authority	Compliance Category	Noncompliant Event	Risk Rating
	Regulatory Authority	Compliance Category	(Noncompliance with the requirement)	KISK Kating
1244			Accumulator has insufficient usable fluid available to operate the required BOP components, shear the drill pipe/coiled	
			tubing and retain on the accumulator system a minimum pressure of 8400 kPa, or the minimum pressure required to	High
			shear the drill pipe/co	
1245	Backup Nitrogen Sizing		Backup N <sub>2</sub> system has insufficient equivalent litres of N <sub>2</sub> available (at a minimum pressure of 8400 kPa) to operate the	High
	Calculations		required BOP components (sizing calculations performed).	riigii
1246			Backup N <sub>2</sub> system has insufficient equivalent litres of N <sub>2</sub> available to operate the required BOP components, shear the	
			drill pipe/coiled tubing and retain on the backup N <sub>2</sub> system a minimum pressure of 8400 kPa, or the minimum pressure	High
			required to shear the	Ü
	Pressure Testing			
1247	Classes II to VI and Critical Sour		Low-pressure and/or high-pressure test(s) not conducted on all required components and/or casing strings.	
	Wells			High
1248			Pressure tests not conducted using low-viscosity fluid.	Low
1249			Low-pressure test not conducted before the high-pressure test.	Low
1250			Stabbing valve and/or lower kelly cock not pressure tested from the bottom.	Low
1251			Stabilized pressure (of at least 90 per cent of the required test pressure over a minimum 10-minute interval) not attained.	Low
1252			Pressure test(s) not recorded in the drilling logbook.	Low
1253			Third-party pressure test documentation not available at the rig.	Low
1254			Casing hanger plug not run to isolate the casing (test pressure exceeded 67 per cent of the bottomhole pressure at the	
1204			casing setting depth).	Low
1255			Minimum 10-minute pressure test not conducted on all required components and/or casing string(s).	Low
1256			Inadequate test pressure used for low-pressure and/or high-pressure test on all required components and/or casing	
			string(s).	Low
	Engines>Shutoff Devices			
1257	Diesel Engine(s)		Drilling rig diesel engine(s) operating within 25 m of the well not equipped with an approved diesel engine shutoff	Law
			device(s) or not equipped with an air intake that is located 25 m from the well.	Low
1258			Drilling rig diesel engine(s) shutoff device does not have a remote control readily accessible from the driller's position to	Low
			shut down the engine(s).	LOW
1259			Other diesel engines (power tongs, cementing units, etc.) operating within 25 m of the well not equipped with proper	Low
			engine shutoff devices and/or not readily accessible from the truck operator's working position.	LOW
1260	Gasoline Engine(s)		Gasoline (including propane) engine(s) operating within 25 m of the well not equipped with an engine shutoff device(s).	Low
1261			Gasoline (including propane) engine(s) shutoff device is not readily accessible to shut down the engine(s).	Low
1262	Testing and Recording		Internal combustion engine shutoff device(s) not tested as required.	Low
1263			Internal combustion engine shutoff device(s) test results not recorded in the drilling logbook.	Low
1264	Conducting Engine Shutoff		Internal combustion engine shutoff device(s) failed to operate.	Low
	Test(s)			Low
1265	Engine Exhaust		Engine exhaust(s) do not meet minimum requirements.	Low
	Mud Tanks and Fluid Volume Mo	nitoring Systems		
	Mud Tanks		Mud tanks not provided.	High
1267	Mud Tank Fluid Volume		Fluid volume monitoring system not provided.	High
	Monitoring System			1 11911
1268	Nonautomated (Nonelectronic) Fluid Level Monitors		Fluid level monitoring system not capable of measuring a change of ±2 m <sup>3</sup> (maximum) in total tank volume.	High
1269			Fluid level monitoring system's float/sensor not located in the appropriate mud tank compartment.	High
1270			Monitoring indicator does not have readable and/or accurate increments.	High
1271			Driller does not know the volume of fluid per increment.	High
1272			Monitoring indicator is not readable from and/or located near the driller's position.	High
1273			Driller does not know the normal fluid level in the mud tanks.	High
1274			The fluid volume monitoring system not operating properly.	High

	Regulatory Authority	Compliance Category	Noncompliant Event	Risk Rating
		Compliance Category	(Noncompliance with the requirement)	NISK Natility
1275	Automated (Electronic) Mud		Automated mud tank fluid volume monitoring system that is electronically operated not used (well classes V and VI,	
	Tank Fluid Volume Monitoring Systems		critical sour wells, and all wells drilled with oil-based drilling fluids).	High
1276			Monitoring system not equipped with mud tank fluid volume sensors in each active mud tank compartment.	High
1277			Monitoring system does not provide accurate and/or continuous mud tank fluid volume readings (that are reported on an electronic monitoring station).	High
1278			Electronic monitoring station not readable from and/or located near the driller's position.	High
1279			Monitoring system not capable of detecting a change of ±2 m3 (±1 m3 for critical sour wells) in total tank fluid volume.	High
1280			Monitoring system not equipped with an alarm set to detect a change of $\pm 2m^3$ in total tank fluid volume.	High
1281			The electronic monitoring station not equipped with chart recorders (critical sour wells).	High
1282			Visual indicator (i.e., flashing light) does not come on automatically whenever the alarm system is shut off (critical sour wells).	High
1283			Driller does not understand the monitoring system in use.	High
	Automated (Electronic) Mud		Monitoring system does not meet minimum requirements for surface casing reduction ( Directive 8: Surface Casing Depth	
	Tank Fluid Volume Monitoring Systems—Surface Casing Reductions		Minimum Requirements ).	High
1285	Trip Tank—Design and Fluid Level Monitoring		Trip tank with a fluid level-monitoring system not provided, not in use, or not operating properly.	High
1286			Monitoring indicator does not have readable and/or accurate increments.	High
1287			Suction and/or return lines not connected to the trip tank while tripping.	High
1288			Monitoring indicator is not readable from and/or located near the driller's position.	High
1289			Driller does not know the volume of fluid per increment.	High
1290			Isolated circulating system with an electronic fluid volume monitoring system not being used and drill string is being circulated while tripping tubulars (coiled tubing units or top drives).	High
1291	Well Classes I, II, and III		Nonautomated fluid monitoring system not capable of detecting a change of 0.08 m <sup>3</sup> or less (where trip tank surface area less than or equal to 3.0 m <sup>2</sup> ).	High
1292				High
1293			Nonautomated fluid monitoring system in use and trip tank surface area is greater than 3.0 m <sup>2</sup> .	riigii
			Automated fluid monitoring system in use and not capable of detecting a change of 0.04 m <sup>3</sup> or less and/or the readout on the monitoring display is not to a minimum of 2 decimal places.	High
1294			Well being circulated during tripping operations (coiled tubing units or top drives) and automated fluid volume monitoring	
			system not capable of measuring volume changes of 0.04 m <sup>3</sup> or less and/or the readout on the monitoring display is not to a minimum o	High
1295	Well Classes IV, V, and VI		Nonautomated fluid monitoring system not capable of detecting a change of 0.15 m <sup>3</sup> or less (where trip tank surface area less than or equal to 6.0 m <sup>2</sup> ).	High
1296			Nonautomated fluid monitoring system in use and trip tank surface area is greater than 6.0 m <sup>2</sup> .	High
1297			Automated fluid monitoring system in use and not capable of detecting a change of 0.08 m <sup>3</sup> or less and/or the readout on the monitoring display is not to a minimum of 2 decimal places.	High
1298			Well being circulated during tripping operations (coiled tubing units or top drives) and automated fluid volume monitoring	
1200			system not capable of measuring volume changes of 0.08 m <sup>3</sup> or less and/or the readout on the monitoring display is not	High
1200	Critical Sour Wells		to a minimum o	Lligh
	Officer Ood Wells		Trip tank surface area is greater than 3.0 m <sup>2</sup> (critical sour wells).	High
1300	<u> </u>		Usable trip tank volume is less than 3.0 m <sup>3</sup> (critical sour wells).	High
1301			Nonautomated fluid monitoring system is in use and the volume increments on the monitoring board are greater than 0.08 m³ (critical sour well).	High
1302			Automated fluid monitoring system in use and not capable of detecting a change of 0.04 m <sup>3</sup> or less and/or the readout on the monitoring display is not to a minimum of 2 decimal places.	High
	Well-Site Supervision and Certi	fication		
1303	Well-Site Supervision		Licensee did not provide an on-site representative who is responsible for and restricted to this drilling operation.	High

	Domilatore Authority	Compliance October	Noncompliant Event	Diele Detine
	Regulatory Authority	Compliance Category	(Noncompliance with the requirement)	Risk Rating
1304			Licensee did not provide an on-site rig manger who is responsible for the supervision of the drilling rig and restricted to this drilling operation.	High
1305			Licensee well-site representative and/or rig manager not readily available.	High
1306			Two well-site licensee representatives (working shifts no longer than 12 hours) not provided (critical sour well drilling in	High
4007	T: : 134/ II O / 1		the critical zone).	<u> </u>
1307	Tripping and Well Control Situations		Licensee representative or rig manager not present on lease during tripping in or out of the well (potential hydrocarbon- bearing zones have been penetrated).	High
1308			Licensee representative and rig manager not present on lease during well control situation.	High
	<b>Blowout Prevention Certificates</b>	—Enform (formerly the Petroleu	m Industry Training Service (PITS))	_
1309	First-Line Supervisor's Certificate	· · ·	Driller does not possess a valid First-Line Supervisor's Blowout Prevention Certificate.	High
1310	Second-Line Supervisor's Well		Licensee well-site representative and/or rig manager does not possess a valid Second-Line Supervisor's Well Control	High
	Control Certificate	1700000	Certificate.	-
1244	Well Control, Crew Training, and	a iripping	Insufficient deilling fluid density to control formation procesure	I liada
1311	Well Control		Insufficient drilling fluid density to control formation pressure.  Well control data not provided.	High
	(See also OGCR Section 6.050			High
	and Directive 037)		Failure to effectively control any oil, gas or water encountered during drilling, testing, completion, or reconditioning operations at the well.	High
1314	Maximum Allowable Casing Pressure (MACP)		MACP improperly calculated.	High
1315	,		MACP not posted in the manifold shack and/or at the remote choke location.	High
	Reduced Speed Pump Pressure (RSPP)		The reduced pump speed and/or reduced pump pressure not recorded in the daily drilling report at least once per tour (hydrocarbon-bearing zones have been penetrated).	Low
1217	Blowout Prevention and Well		Well control procedures not posted in doghouse.	
	Control Procedures			Low
1318	STICK Diagram		STICK diagram not posted in doghouse and/or on-site personnel have not reviewed or do not understand stick diagram information.	High
1319			STICK diagram does not contain all the required information.	High
	Crew Training			
	BOP Drills		Required BOP drills not conducted.	High
	Crew Alert Method		Crew alert device not provided and/or not operable.	High
	Crew Assessment and Procedures		Crew did not respond to alert.	High
1324	Trocedures		Crew training inadequate in the operation of the BOP equipment and/or well control procedures (crew unable to properly shut in well).	High
1325			Crew training inadequate in the operation of the BOP equipment and/or well control procedures (well properly shut in, but crew not familiar with all BOP equipment and/or well control procedures).	Low
1326	Recording BOP Drills		Required BOP drills not recorded in the drilling logbook.	Low
	Tripping		Trip margin not sufficient to exert an adequate overbalance of the expected formation pressures.	High
1328	11 5		Bottoms-up circulation not conducted and/or weighted pill not pumped prior to tripping pipe from the well.	Low
	Flow Checks		Ten-minute flow checks not conducted at the required intervals.	High
1330			Flow checks not recorded in the drilling logbook.	Low
1331			Wellbore not filled to surface prior to conducting flow checks.	High
	Hole Filling		Fluid level in the wellbore dropped more than 30 m from surface while tripping.	High
	Trip Records		Trip records not being accurately completed.	High
1334			Trip records not available at the rig.	Low
1335			Total calculated and actual volumes not recorded in the drilling logbook for each trip.	Low
1336			Trip record(s) not signed and dated by the licensee and the contractor representatives (critical zone penetrated).	Low
	Electrical and Flame-Type Equip	oment		
1337	Electrical Appliances and		Electrical appliance(s) and/or electrical device(s) that are potential sources of ignition being used within a hazardous	l a
	Electrical Devices		location (wellbore not shut in).	Low

	De sudetem Authorites	0	Noncompliant Event	Diele Detie e
	Regulatory Authority	Compliance Category	(Noncompliance with the requirement)	Risk Rating
1338			Electrical appliance(s) and/or electrical device(s) that are potential sources of ignition being used within a hazardous	
			location where no on-site safety assessment has been conducted and/or not reviewed with crew and/or not documented	Low
			in the tour reports	
1339	Electrical Motors and Electrical		Electrical motors and/or electrical generators (where arcing is produced) being used within a hazardous location not	Low
	Generators		purged with an air intake located outside the hazardous location.	
	Flame-Type Equipment		Flame-type equipment used within 25 m of the wellbore (wellbore not shut in).	Low
1341			Flame-type equipment used within 25 m of a separator, oil storage tank, or other source of ignitable vapour.	Low
	Incinerators and Burn Pits		Incinerators and/or burn pits located within 50 m of the wellbore, separator, oil storage tank, or other source of ignitable vapour.	Low
	Smoking		Smoking within 25 m of the wellbore, rig, derrick, separator, oil storage tank, or other source of ignitable vapour.	Low
	Casing Inspection			
	30-Day Casing Inspection		Required casing integrity tests not performed and/or inadequate.	Low
	Drillstem Testing			
	Drillstem Testing (DST)		Reverse-circulating sub not installed in the drill string.	High
1348			Remote-controlled master valve not installed on the testing head.	High
1349			Separate DST line(s) not installed, and/or the end of the line(s) does not terminate at least 50 m from the well.	Low
1350			DST line does not meet minimum pressure rating requirements for class of well.	High
1351			DST line does not have a minimum nominal diameter of 50.8 mm throughout.	Low
1352			DST line connections not flanged, hammer union, or threaded.	Low
1353			DST line(s) not secured at 10 m intervals.	Low
1354			DST manifold does not have (as a minimum) the same pressure rating as the required BOP system.	High
1355			DST manifold not secured to restrict it from movement.	Low
1356			Liquids produced during DST not separated.	Low
1357			Liquids produced during DST directed to an earthen pit.	Low
	High-Hazard Area and Surface	Casing Reductions		
	Surface Casing		Surface casing not set to a minimum depth of 180 m.	High
1359	(See also Directive 009 Section 3.2 and OGCR Section 6.090)		Failure to contact area office & discuss remedial action (Directive 009).	High
1360	Drilling Fluid Density		Drilling fluid density not adequate to exert a minimum of 1400 kPa overbalance (Mannville Group penetrated).	High
	Emergency Flare Line		Emergency flare line not installed.	High
1362	<u> </u>		Emergency flare line does not meet minimum design requirements (e.g., size, valves, working pressure).	High
1363			Fluid turns and/or pipe extensions between drilling spool and the innermost valve.	High
1364			Fluid turns and/or piping extensions installed between the valves and the innermost valve is not in the closed position.	High
1365			More than one valve on emergency bleed-off line in the closed position.	Low
1366			Emergency flare line valves not operable.	High
1367			Emergency flare line valve handles not installed.	Low
1368			Flare line connection to the two valves not flanged and/or remaining connections (downstream of flanged connection) not flanged, hammer union, or threaded.	High
1369			Emergency flare line improperly connected (e.g., loose unions, bolts).	Low
1370			Right-angle fluid turns not used for directional changes in emergency flare line.	Low
1371			Fluid turn installed at end of emergency flare line (flare pit in use).	Low
1372			Emergency flare line not adequately secured.	Low
1373			Emergency flare line is not self-draining and no means incorporated to ensure that fluid can be drained (winter operations	LOW
			only).	High
1374			End of emergency flare line does not terminate 50 m from the wellbore.	Low
1375			Emergency flare line does not terminate in a flare pit or flare tank.	Low
1376			Visual inspection of emergency flare line not conducted and/or recorded in the drilling logbook.	Low
1377	Surface Casing Reductions		Deficiencies are classified as set out above in Section 15.1.3 (Emergency Flare Line).	Low
	Sour and Critical Sour Wells			
1378	Emergency Response Plan (ERP)		No approved specific ERP where required.	High
1379			Copy of ERP not on location.	High

Regulatory Authority  Compliance Category  (Noncompliance with the requirement)  Lecrete did not conduct review of the EPF with on-site personnel (required to implement the pian) within 96 hours prior to conduction operations in this part of the EPF with on-site personnel (required to implement the pian) within 96 hours prior to conduction operations on the part of the EPF with on-site personnel (required to implement the pian) within 96 hours prior to conduction prior to entering the critical or so rouz zone.  Lecrete and the representative not feature with EPF or the sour zone.  Lecrete did not notify the AEF and all residents after all drilling operations were completed (rig release).  1,385 Warrang Sign in 1735 Area  1,386 Warrang Sign in 1735 Area  1,387 Critical Sour Well  2,388 Warrang Sign in 1735 Area  1,458 Warrang sign posted but not required (executive).  1,458 Warrang sign posted but not required (executive).  2,589 Intermediate Casing  1,589 Intermediate Casing  1,589 Intermediate Casing  1,589 Intermediate Casing  1,580 Intermediate Casing  1,580 Intermediate Casing of Intermediate Casing on the strength of the transport of the three BOP stock configurations.  2,580 Intermediate Casing  2,580 Intermediate Casing on the strength of the transport of the three BOP stock configurations.  3,580 Intermediate Casing  2,580 Intermediate Casing on the strength of the case of the strength of the strength of the case of the strength of the strength of the case of the strength o	Diele Detine	Noncompliant Event	Commission of Cotomorni	Dogwood and Authority	
1,381   Licensee on-site presentative for familiar with ERP.	Risk Rating		Compliance Category	Regulatory Authority	
Licensee of not inestaled and/or on location prior to entering the critical or sour zone.  All equipments specified in EPP not installed and/or on location prior to entering the critical or sour zone.  Licensee did not notify all residents prior to entering the first sour zone.  Licensee did not notify the AER and all residents prior to entering the first sour zone.  Licensee did not notify the AER and all residents and all diviling operations were completed (rig release).  1386 Part of the AER of the	High				1380
All equipment specified in ERP not installed and/or on location prior to entering the critical or sour zone.					
Licensee did not notify all readents prior to entering the first sour zone	High				
Licensee did not notify the AER and all residents after all drilling operations were completed (rig release).	High				
Hys warning sign not posted as required.  Hys warning sign not be but not required (sweet well).  Hys warning sign posted but not required (sweet well).  Copy of drilling plan not on location.  Intermediate casing  Intermediate casing not set as required.  BOP system and Choke  Manifol  Ram blanking tool not on location (Configuration on set on single set on configurations.  BOP size Configuration of some on the three BOP stack configurations.  BOP system and Choke  Manifol  Ram blanking tool not on location (Configuration 2 or 3 in use).  BOP system and choke the set of some size of the system set of the se	Low			ERP Notification	
Hys warning sign possed but not required (sweet well).  Serviced Sour Well  Signifing Plan  Copy of drilling plan not on location.  Intermediate casing most set as required.  Intermediate casing waiver not on location.  Signifing Plan  Signifing Plan  Signification of the three BOP stack configuration of the three BOP stack configurations.  Ram blanking tool not on location (Configuration 2 or 3 in use).  BOP stack Configuration 3 in use and insufficient surface or intermediate casing set to contain the maximum anticipated reservoir pressure.  The choke manifold does not meet the minimum pressure rating for the class of well being drilled and/or conform to the required critical sour well choke manifold does not meet the minimum pressure rating for the class of well being drilled and/or conform to the required critical sour well choke manifold does not meet the minimum pressure rating for the class of well being drilled and/or conform to the required critical sour well choke manifold does not meet the minimum pressure rating for the class of well being drilled and/or conform to the required critical sour well choke manifold does not meet the minimum pressure rating for the class of well being drilled and/or conform to the required critical sour well choke manifold does not manifold purtain (valves, chokes, piping, etc.).  The remote choke is not a nonrubber sleewed choke.  Shear blind rams waiver not on location.  The remote choke is not a nonrubber sleewed choke.  Shear blind rams waiver not on location.  On lilippe used on premium class or better grade.  Indicators for pump pressure, pump strokes per minute, hook load, and/or table torque not installed, and/or operational.  Oevices  Continuous recording devicely not provided or record the rate of penetration, pump pressure, pump strokes per minute, hook load, and/or table torque not installed, and/or operational.  Oevices  Continuous recording devicely not provided or record the rate of penetration, pump pressure, pump strokes per minute, hook load, and/or tab	Low			NA : 0: : 1100 A	
Trice   Sour Well	Low			Warning Sign in H2S Area	
Description   Copy of drilling plan not on location.	Low	$H_2S$ warning sign posted but not required (sweet well).			1386
Intermediate Casing   Intermediate casing not set as required.					
Intermediate casing waiver not on location.	High	Copy of drilling plan not on location.		Drilling Plan	1388
BOP stack configuration does not conform to one of the three BOP stack configurations.	High				
Manifold   Ram blanking tool not on location (Configuration 2 or 3 in use).	Low	Intermediate casing waiver not on location.			
Ram blanking tool not on location (Configuration 2 or 3 in use).  BOP stack Configuration 3 in use and insufficient surface or intermediate casing set to contain the maximum anticipated reservoir pressure.  The choke manifold does not meet the minimum pressure rating for the class of well being drilled and/or conform to the required critical sour well choke manifold configuration (valves, chokes, piping, etc.).  The remote choke is not a nonrubber sleeved robke.  Shear Blind Rams  Shear Blind Rams  Shear Blind Rams  Shear Blind rams not installed (where equired).  Shear Blind Rams  Shear Blind rams welver not on location.  Drill pipe blipe used not premium class or better grade.  Indicators and Recording bevices permit blipe bli	High	BOP stack configuration does not conform to one of the three BOP stack configurations.			
BOP stack Configuration 3 in use and insufficient surface or intermediate casing set to contain the maximum anticipated reservoir pressure.	High	Ram blanking tool not on location (Configuration 2 or 3 in use).			
reservoir pressure. The choke manifold does not meet the minimum pressure rating for the class of well being drilled and/or conform to the required critical sour well choke manifold configuration (valves, chokes, piping, etc.).  The remote choke is not a normal seleved choke.  Shear blind rams not installed (where required).  Shear blind rams waiver not on location.  Drill pipe used not premium class or better grade.  Indicators and Recording Devices  Indicators for pump pressure, pump strokes per minute, hook load, and/or table torque not installed, and/or operational, and/or visible from the driller's position.  Continuous recording device(s) not provided to record the rate of penetration, pump pressure, pump strokes per minute, hook load, rotary torque.  Laccompany of the continuous recording device(s) not provided to record the rate of penetration, pump pressure, pump strokes per minute, hook load, rotary torque.  Laccompany of the continuous recording device(s) records not available.  Laccompany of the continuous monitoring system most installed (water-based drilling fluid and drilling in the critical zone).  Drilling fluid pri continuous monitoring system does not have an alarm to indicate a drop in pri (water-based drilling fluid and drilling in the critical zone).  Drilling fluid pri not maintained above 10.5 (water-based drilling fluid and drilling in the critical zone).  Ambient H <sub>2</sub> S detector not located at the shale shaker (during drilling in the critical zone).  Ambient H <sub>2</sub> S detector not located at the shale shaker (during drilling in the critical zone).  Portable ambient H <sub>2</sub> S concentration describe not no location (during drilling in the critical zone).  Ambient H <sub>2</sub> S detector not located at the shale shaker (during drilling in the critical zone).  Portable ambient H <sub>2</sub> S concentration describen device not on location (during drilling in the critical zone).  Portable ambient H <sub>2</sub> S concentration describen not not not not not not not not not no		BOP stack Configuration 3 in use and insufficient surface or intermediate casing set to contain the maximum anticipated			
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Shear Blind Rams   Shear Blind rams not installed (where required).	High				
Shear Blind Rams   Shear Blind rams not installed (where required).	Low	The remote choke is not a nonrubber sleeved choke.			1395
Drill pipe   Drill pipe   Drill pipe used not premium class or better grade.   Indicators and Recording   Devices   Indicators for pump pressure, pump strokes per minute, hook load, and/or table torque not installed, and/or operational, and/or visible from the driller's position.   Continuous recording device(s) not provided to record the rate of penetration, pump pressure, pump strokes per minute, hook load, ordary table revolutions per minute (rpm), and rotary torque.   Continuous recording device(s) records not available.   Drilling fluid per continuous monitoring system not installed (water-based drilling fluid and drilling fluid and drilling fluid per continuous monitoring system not not stalled (water-based drilling fluid and drilling fluid and drilling fluid and drilling fluid per continuous monitoring system not installed (water-based drilling fluid and drilling fluid per not maintained above 10.5 (water-based drilling fluid and drilling in the critical zone).  Ambient H <sub>2</sub> S monitoring system does not have audible and visible alarms located near the driller's position (during drilling in the critical zone).  Portable ambient H <sub>2</sub> S concentration detection device not on location (during drilling in the critical zone).  Drilling fluid sulphide content not monitored as required.  Portable ambient H <sub>2</sub> S drive content in the mud not maintained while drilling in the critical zone.  The usable surface drilling fluid volume is less than 100% of the calculated volume of a gauge hole minus the drill string displacement.  Drillistem test conducted on critical sour z	High			Shear Blind Rams	1396
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Devices   and/or visible from the driller's position.	High			Drill Pipe	1398
Devices   and/or visible from the driller's position.	_				
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in the critical zone).  1407 Portable ambient H <sub>2</sub> S concentration detection device not on location (during drilling in the critical zone).  1408 Sulphide Monitoring Drilling fluid sulphide content not monitored as required.  1410 Records of the sulphide content in the mud not maintained while drilling in the critical zone.  1411 Drilling Fluid Volumes The usable surface drilling fluid volume is less than 100% of the calculated volume of a gauge hole minus the drill string displacement.  1412 Testing and Coring Drillstem test conducted on critical sour zone(s).  1413 No ability to circulate above the core barrel (when required).  1414 Underbalanced Drilling Underbalanced drilling not conducted in accordance with requirements.  1415 Underbalanced drilling conducted where residents reside in the calculated EPZ (within critical zone).  1416 Personnel Licensee and/or contractor representative(s) do not have a current Enform H <sub>2</sub> S Alive certification.  1417 Drilling rig crew member(s) does not have a current Enform H <sub>2</sub> S Alive certification.  1418 Five-man drilling rig crew not provided.	High				
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1408   Drilling fluid sulphide content not monitored as required.  1410   Records of the sulphide content in the mud not maintained while drilling in the critical zone.  1411   Drilling Fluid Volumes   The usable surface drilling fluid volume is less than 100% of the calculated volume of a gauge hole minus the drill string displacement.  1412   Testing and Coring   Drillstem test conducted on critical sour zone(s).  1413   No ability to circulate above the core barrel (when required).  1414   Underbalanced Drilling   Underbalanced drilling not conducted in accordance with requirements.  1415   Underbalanced drilling conducted where residents reside in the calculated EPZ (within critical zone).  1416   Personnel   Licensee and/or contractor representative(s) do not have a current Enform H <sub>2</sub> S Alive certification.  1418   Five-man drilling rig crew not provided.	High				1407
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displacement.  1412 Testing and Coring  Drillstem test conducted on critical sour zone(s).  No ability to circulate above the core barrel (when required).  1414 Underbalanced Drilling  Underbalanced drilling not conducted in accordance with requirements.  Underbalanced drilling conducted where residents reside in the calculated EPZ (within critical zone).  1416 Personnel  Licensee and/or contractor representative(s) do not have a current Enform H <sub>2</sub> S Alive certification.  Drilling rig crew member(s) does not have a current Enform H <sub>2</sub> S Alive certification.  Five-man drilling rig crew not provided.				Drilling Fluid Volumes	
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Drilling rig crew member(s) does not have a current Enform H <sub>2</sub> S Alive certification.  Five-man drilling rig crew not provided.	Low			Personnel	
	Low				
	Low	Five-man drilling rig crew not provided.			1418
1 2 2	Low				
Safety personnel and adequate safety equipment for all workers not on site.	Low				

1421 Ignition 1422 Well- 1423 Notific of Drillin Recoon 1425 Loss Blows 1426 Loss and F 1427 1428 Kick- 1429 1430 Blows 1431	tion Criteria  II-Site Records and Reporting iffication of Commencement Orilling (Spud) Iling and Completion Data cording s of Circulation, Kicks and wouts s of Circulation—Recording Reporting  K—Recording and Reporting wout—Recording and	Compliance Category	(Noncompliance with the requirement)  Licensee does not have clear and specific plans in place to ignite an uncontrolled flow.  Dual ignition system not installed as required.  Licensee did not notify the appropriate Field Centre within 12 hours of the commencement of the drilling of a well.  Daily record of operations not recorded in the drilling logbook.  Loss of circulation not recorded in the drilling logbook.  Loss of circulation not reported to the AER (well requires an AER-approved ERP).  Kick not recorded in the drilling logbook.  Kick not reported to the AER (well requires an AER-approved ERP).	High High Low Low Low High Low
1422   Well- 1423   Notific of Dri 1424   Drillin   Reco 1425   Loss   Blowd 1426   Loss   and F 1427   1428   Kick- 1429   1430   Blowd 1431   1432   Devia	II-Site Records and Reporting ification of Commencement Drilling (Spud) ling and Completion Data cording is of Circulation, Kicks and wouts is of Circulation—Recording if Reporting in Recording and Reporting in Recording and Recording and wout—Recording and in Recording in Recording and in Reco		Dual ignition system not installed as required.  Licensee did not notify the appropriate Field Centre within 12 hours of the commencement of the drilling of a well.  Daily record of operations not recorded in the drilling logbook.  Loss of circulation not recorded in the drilling logbook.  Loss of circulation not reported to the AER (well requires an AER-approved ERP).  Kick not recorded in the drilling logbook.  Kick not reported to the AER (well requires an AER-approved ERP).	Low Low High Low Low
Well-   1423   Notification of Dri   1424   Drillinan   Reco   1425   Loss   Blowder   Blowder   Loss   and Fall   Fall	ification of Commencement Orilling (Spud) Iling and Completion Data Cording Is of Circulation, Kicks and Wouts Is of Circulation—Recording I Reporting I Recording and Reporting Wout—Recording and Viation Surveys		Licensee did not notify the appropriate Field Centre within 12 hours of the commencement of the drilling of a well.  Daily record of operations not recorded in the drilling logbook.  Loss of circulation not recorded in the drilling logbook.  Loss of circulation not reported to the AER (well requires an AER-approved ERP).  Kick not recorded in the drilling logbook.  Kick not reported to the AER (well requires an AER-approved ERP).	Low  Low  High Low
1423 Notific of Dri 1424 Drillin Reco 1425 Loss Blowd 1426 Loss and F 1427 1428 Kick–1429 1430 Blowd 1431 1432 Devia	ification of Commencement Orilling (Spud) Iling and Completion Data Cording Is of Circulation, Kicks and Wouts Is of Circulation—Recording I Reporting I Recording and Reporting Wout—Recording and Viation Surveys		Licensee did not notify the appropriate Field Centre within 12 hours of the commencement of the drilling of a well.  Daily record of operations not recorded in the drilling logbook.  Loss of circulation not recorded in the drilling logbook.  Loss of circulation not reported to the AER (well requires an AER-approved ERP).  Kick not recorded in the drilling logbook.  Kick not reported to the AER (well requires an AER-approved ERP).	Low Low High Low
of Dri 1424 Drillin Reco 1425 Loss Blowd 1426 Loss and F 1427 1428 Kick- 1429 1430 Blowd 1431 1432 Devia	Orilling (Spud) Iling and Completion Data Coording Sof Circulation, Kicks and Wouts Sof Circulation—Recording Reporting  K—Recording and Reporting Wout—Recording and Viation Surveys		Daily record of operations not recorded in the drilling logbook.  Loss of circulation not recorded in the drilling logbook.  Loss of circulation not reported to the AER (well requires an AER-approved ERP).  Kick not recorded in the drilling logbook.  Kick not reported to the AER (well requires an AER-approved ERP).	Low Low High Low
1424 Drillin Reco 1425 Loss Blowd 1426 Loss and F 1427 1428 Kick- 1429 1430 Blowd 1431 1432 Devia	ling and Completion Data cording s of Circulation, Kicks and wouts s of Circulation—Recording Reporting ——Recording and Reporting ——Recording and Recording and ——Recording and Recording and Recordin		Loss of circulation not recorded in the drilling logbook.  Loss of circulation not reported to the AER (well requires an AER-approved ERP).  Kick not recorded in the drilling logbook.  Kick not reported to the AER (well requires an AER-approved ERP).	Low Low High Low
Reco   1425   Loss   Blowd   1426   Loss   and F   1427     1428   Kick-1429   1430   Blowd   1431   1432   Devia	sording s of Circulation, Kicks and wouts s of Circulation—Recording Reporting  k—Recording and Reporting wout—Recording and viation Surveys		Loss of circulation not recorded in the drilling logbook.  Loss of circulation not reported to the AER (well requires an AER-approved ERP).  Kick not recorded in the drilling logbook.  Kick not reported to the AER (well requires an AER-approved ERP).	Low High Low
1425 Loss Blowd 1426 Loss and F 1427 1428 Kick– 1429 1430 Blowd 1431 1432 Devia	s of Circulation, Kicks and wouts s of Circulation—Recording Reporting  —Recording and Reporting wout—Recording and		Loss of circulation not reported to the AER (well requires an AER-approved ERP).  Kick not recorded in the drilling logbook.  Kick not reported to the AER (well requires an AER-approved ERP).	Low High Low
Blowd   1426   Loss   and F   1427     1428   Kick-  1429     1430   Blowd   1431     1432   Devia	wouts s of Circulation—Recording Reporting  —Recording and Reporting  wout—Recording and  viation Surveys		Loss of circulation not reported to the AER (well requires an AER-approved ERP).  Kick not recorded in the drilling logbook.  Kick not reported to the AER (well requires an AER-approved ERP).	High Low
1426 Loss and F 1427 1428 Kick– 1429 1430 Blowd 1431 1432 Devia	s of Circulation—Recording Reporting  —Recording and Reporting  wout—Recording and  viation Surveys		Loss of circulation not reported to the AER (well requires an AER-approved ERP).  Kick not recorded in the drilling logbook.  Kick not reported to the AER (well requires an AER-approved ERP).	High Low
and F 1427 1428 Kick- 1429 1430 Blowd 1431 1432 Devia	Reporting  K—Recording and Reporting  wout—Recording and  viation Surveys		Loss of circulation not reported to the AER (well requires an AER-approved ERP).  Kick not recorded in the drilling logbook.  Kick not reported to the AER (well requires an AER-approved ERP).	High Low
1427 1428 Kick- 1429 1430 Blowd 1431 1432 Devia	k—Recording and Reporting wout—Recording and viation Surveys		Kick not recorded in the drilling logbook.  Kick not reported to the AER (well requires an AER-approved ERP).	High Low
1428 Kick- 1429 1430 Blowd 1431 1432 Devia	wout—Recording and viation Surveys		Kick not recorded in the drilling logbook.  Kick not reported to the AER (well requires an AER-approved ERP).	Low
1429 1430 Blowd 1431 1432 Devia	wout—Recording and viation Surveys		Kick not reported to the AER (well requires an AER-approved ERP).	
1430 Blowd 1431 1432 Devia	viation Surveys			
1431 1432 Devia	viation Surveys			High
1432 Devia			Blowout not recorded in the drilling logbook.	Low
			Blowout not reported to the AER Field Centre immediately.	High
11433			Deviation surveys not conducted as required.	Low
			Records of deviation surveys not available.	Low
	ectional Surveys—Critical		Directional surveys not conducted as required.	Low
	ır Wells		Described discribed to the control of the least	1
1435	II Liaanaa Daatina		Records of directional surveys not available.	Low
	Il Licence Posting		Well being drilled without a valid AER well licence.	High
1437	and Contractor Inches	ti	Well licence not posted.	Low
	ensee and Contractor Inspective Inspections	tions	Daily inspections not conducted	Low
	cording Inspections		Daily inspections not conducted.  Daily inspections not recorded.	Low
	ailed Inspections		Detailed inspections not conducted as required.	Low
1440 Detai	alled Inspections		AER Field Centre not contacted 48 hours prior to conducting detailed inspection (prior to penetrating the critical zone).	Low
	cording Inspections		Detailed inspections not recorded.	Low
	Il-Site Fluids and		Detailed inspections not recorded.	LOW
	vironment			
	ert Mud Systems		Make-up reserve for invert mud system located within 25 m of the wellbore.	Low
1445	SIT WILL SYSTEMS		Make-up reserve for invert mud system located within 50 m of a flare pit/tank, and/or incinerator, and/or burn pit.	Low
1446			Use of oil-based drilling fluids (or any other potentially toxic drilling additive) when drilling above the "base of groundwater"	
			protection" depth.	High
1447 Crude	de Oil Used to Release		On-site safety not addressed before commencing crude oil spotting operations.	
	ck Pipe (Spotting)		on one carety that a carety actions a commentating classes on opening opening.	Low
1448	on the (epotang)		Crude oil used for spotting not dead oil and/or contains H <sub>2</sub> S.	Low
1449			Subsurface pressures not maintained at all times during the spotting and circulation of the crude oil.	Low
	Storage Tanks		Oil storage tank not located 50 m from the wellbore, and/or flare pit/tank, and/or incinerator, and/or burn pit.	Low
	nporary Aboveground		Temporary aboveground storage of fluids produced or stored does not meet requirements.	LOW
	rage Tank Diking		Temporary aboveground storage of indias produced of stored does not meet requirements.	Low
	quirements			2011
	np Construction and		Sump not excavated from impervious undisturbed subsoil or constructed in permeable soil and not sealed with clay, a	
	eration		synthetic liner, or any other approved technique.	High
1453			Sump not sized for anticipated volume of drilling fluid.	Low
1454			Sump not located and/or constructed to prevent collection of natural run-off water.	Low
	ntainment of Fluids and Spills		Fluids not properly contained (spilled off lease).	High
1456			Fluids not properly contained (spilled on lease).	Low
1457			Spill on lease (in excess of 2 m3) and/or any spill off lease not reported to the AER.	High

	Dogulatom, Authority	Compliance Category	Noncompliant Event	Diels Deting
	Regulatory Authority	Compliance Category	(Noncompliance with the requirement)	Risk Rating
1458			Late notification to the AER of a reportable spill (licensee has taken appropriate measures to contain/clean-up prior to AER notification).	Low
1459			Landowner not advised of spill off lease or significant (in excess of 2 m <sup>3</sup> ) spill on lease.	Low
1460	Noise Emissions		Drilling operations exceed permissible sound levels.	Low
1461	Odour Emissions		H <sub>2</sub> S emissions off lease.	High
1462			Other odour emissions off lease.	Low
1102	Waste Management		Cities easter critication on reado.	2011
1463	Characterization		Information not readily available to show proper characterization and/or volume of waste generated on site.	Low
	Storage		Waste generated on site not properly stored.	Low
1465	otorago .		All waste not removed after the completion of drilling operations.	Low
1466			Information not readily available to show proper storage, handling, and volume of all waste generated on site.	Low
	Disposal		Waste material generated on site not disposed of in an approved manner.	Low
	Accounting and Documentation		Records not readily available to show the source, volume, and final disposition of all waste generated on site.	Low
	Underbalanced Drilling (See also Interim Directive 94- 03)		Underbalanced drilling operation does not meet the minimum requirements set out in ID 94-3: Underbalanced Drilling.	Low
	Oil Sands Core Holes and Evalu	uation Wells		
	Surface Mineable Areas		Conductor pipe not set into a competent formation.	High
1471			Diverter system not installed or not operable.	High
1472			Sufficient heat not provided to ensure proper operation of diverter system.	Low
1473			Diverter system not mechanically tested daily.	Low
1474			Diverter line does not terminate a minimum of 15 m away from the wellbore.	Low
1475			Diverter line not adequately secured.	Low
1476			The mud tank or pit not located a minimum of 2 m from the wellbore.	Low
1477			Stabbing valve (or similar device) not provided.	High
1478			Stabbing valve and associated tools not operable and/or readily accessible.	High
1479			Stabbing valve in closed position.	Low
1480			Crossover subs (if required for the stabbing valve) not provided.	High
1481			Equipment inadequate to shut off any flow through the inside of the drill string (wireline coring operations).	High
1482			Hole not kept full of drilling mud during coring or tripping operations.	High
1483			Engine shut off devices not provided or not operable (within 15 m of the wellbore).	Low
1484			Core shacks, doghouses, etc., do not have two doors and/or one of the doors does not open facing away from the wellbore (within 15 m of the wellbore).	Low
1485			Open flame and/or other sources of ignition located within 15 m of the wellbore.	Low
1486			Winter shrouding surrounding the wellbore not open at the top and/or bottom.	Low
1487			Crew training inadequate.	High
1488			Licensee well-site representative does not possess a valid Enform Second-Line Supervisor's Certificate and/or not readily available.	High
1489	Other AER Requirements		Noncompliance with other AER rules and requirements.	Low
	ve 037: Service Rig Inspection Ma	inual	The second secon	
	BOP Type, Ram Size, & Pressure Rating	Well Servicing	Using inadequate preventer.	High
1491			Improper pipe ram sizing.	High
1492			BOP pressure rating low.	High
1493			BOP stack arrangement does not conform to requirements (annular not provided).	High
1494			Spool improper pressure rating.	High
1495			Tubing stripper not installed or not operating properly (Class I gas wells only).	High
1496			Tubing plug or other suitable shut-off device not installed in tubing string during tripping operations (Class I gas wells	
			only).	High
1497			Wire line annular preventer not in use (conventional annular preventer not in service).	High
1498			Three-year shop servicing not conducted.	Low

	Regulatory Authority	Compliance Category	Noncompliant Event	Risk Rating
	regulatory Authority	Compliance Category	(Noncompliance with the requirement)	INISK INDUING
1499			BOP stack arrangement does not confirm to requirements (however, all components are present).	Low
1500			BOP pressure rating not detectable.	Low
1501 B	Bleed-Off & kill Lines		Pressure gauge at manifold inaccurate (e.g. out of calibration or range too large too large and no suitable back-up).	High
1502			Check valve in kill line in backwards.	High
1503			Kill line or bleed-off line or manifold improper pressure rating.	High
1504			Shock hose in kill line or bleed-off line improper pressure rating.	High
1505			Kill line and/or bleed-off line not properly secured.	High
1506			Casing gauge inaccurate (e.g. out of calibration or range too large and no suitable back-up).	High
1507			Manifold valves difficult to operate, need lubrication / repair, or washed out.	Low
1508			Valve handles missing on kill line or bleed-off line or manifold (no alternate handle provided).	Low
1509			Manifold design improper - check valve or valves location incorrect.	Low
1510			Kill line or bleed-off line improperly positioned within BOP stack.	Low
1511			Kill line or bleed-off line or manifold improper size.	Low
1512			Bolts missing from bleed-off line or kill line flanges.	Low
1513			End of flare line does not terminate in flare pit (Class I).	Low
1514			Bleed-off line disconnected from wellhead.	Low
1515			Kill line and/or bleed-off line not connected to rig tank or manifold.	Low
1516			Spool or flanged BOP port not used for bleed-off or kill line connection (Class II, IIA and III).	Low
1517			Improper spool used for bleed-off or kill line connection on Class II or III well (spool has threaded outlets whereas	
			wellhead has flanged equipment).	Low
	Non-Steel Hydraulic Lines Fire		Hydraulic hoses inadequately fire sheathed or fire sheathing damaged.	High
	Sheathed			riigii
	Orill-String Valves Readily		Stabbing valve not accessible or not operable.	High
	Accessible			ŭ .
1520			Stabbing valve closing handle not on location or inaccessible.	High
1521			Work string cross-over sub not available or accessible.	High
1522			Stabbing valve in closed position.	High
1523			Stabbing valve not full opening.	High
1524			Poor maintenance of valve threads on stabbing valve or work string cross-over sub.	Low
1525			Hanger cap on stabbing valve not full opening.	Low
1526			Carrying handles/hanger cap not provided.	Low
	Equipment Adequately Heated		BOP's inadequately heated.	High
1528			Bleed-off and/or kill-line valves iced up.	High
1529			Ice plug in bleed-off and/or kill line.	High
1530			Stabbing valve not kept in ice-free environment during cold weather conditions.	Low
	BOP Equipment & Controls		Accumulator has insufficient usable fluid available, at a minimum pressure of 8400 kPa, to close all BOP components	High
	Norkable & Properly Connected		(sizing calculations performed).	_
1532			Accumulator not connected to hydraulic system.	High
1533			Accumulator gauge inaccurate or unavailable.	High
1534			Full BOP controls not provided at or near Driller's station.	High
1535			Remote BOP controls inadequate or controls not provided.	High
1536			Nitrogen bottles not provided.	High
1537			Nitrogen bottles not connected or improperly connected.	High
1538			Gauge and/or fitting not available for taking pressure of nitrogen bottles.	Low
1539			Nitrogen bottle gauge inaccurate.	Low
1540			Nitrogen bottle volume low (insufficient usable fluid available - sizing calculations performed).	High
1541			Accumulator pump failed to recharge accumulator.	High
1542			Annular or ram preventer seals leaking.	High
1543			Hydraulic hoses improper pressure rating.	High
1544			BOP control functions not clearly marked.	High
1545			Fluid leak in hydraulic system (BOP's will not function).	High

Plut by pass through BCP control (BCPP's will not function) or pressure dropped below \$400 kPs after function test with bump off. Bysass allows loss of pressure.		Pagulatony Authority	Compliance Category	Noncompliant Event	Risk Rating
pump off Spass allows loss of pressure.		Regulatory Authority	Compliance Category	(Noncompliance with the requirement)	RISK Rating
pump off Spass allows loss of pressure.	1546				115.1
Closing devices (crarks) not available for not preventer.					High
1948   BOP's falled to operate from renote position   High   BOP's falled to operate from Differ's position   High   BOP's falled to operate from Differ's position   High   BOP's falled to operate from Differ's position   High   BOP's falled to position   High   BOP's falled   Low   Manual BOP's colors   Accumulator print plained to rectarge accumulator within 6 minutes   Low   Accumulator print plained to rectarge accumulator within 6 minutes   Low   Accumulator print plained to rectarge accumulator within 6 minutes   Low   Accumulator print plained to rectarge accumulator within 6 minutes   Low   High   BOP's accumulator project-time colors   Low   High   BOP's accumulator   BOP's accumulator   Low   High   BOP's accumulator   Low   Low	1547				High
BOP's not installed on well   Manual BOP congregated event end variable for incorrectly sized   High					High
Manual BOP Costing device not available or incorrectly sized   Low	1549			BOP's failed to operate from Driller's position	High
Accumulator pump failed to recharge accumulator within 5 minutes   Low	1550			BOP's not installed on well	High
Fitting not available to obtain accumulator precharge   Low	1551				Low
Accumulator impropenty connected (check valve location does not allow for accumulator recharge pump change)   Low				Accumulator pump failed to recharge accumulator within 5 minutes	Low
Hydraulic hoses not protected from damage (outer protective coating either damaged or missing)   Low					Low
Remote controls located within 7m of well bore (Classes I. I), II. Jor within 25m (Class III)   Low				Accumulator improperly connected (check valve location does not allow for accumulator recharge pump change)	Low
Fluid leak in hydraulic system (BOP's still function)   Low				Hydraulic hoses not protected from damage (outer protective coating either damaged or missing)	Low
Fluid by-passing through BOP controls (BOP's still function) and no pressure loss occurring on system   Low				Remote controls located within 7m of well bore (Classes I, II, IIA) or within 25m (Class III)	Low
Annular or ram preventiers failed to dose within flange during operations    Low					Low
Bolts missing from BOP or wellhead fainge during operations   Low				Fluid by-passing through BOP controls (BOP's still function) and no pressure loss occurring on system	Low
Accumulator bottles cannot be isolated to prevent back-up nitrogen loss into system   Low   High					Low
Crew Horning   Crew training inadequate   High					Low
Crew drills not being performed   High					Low
Rig horn inoperable or not in place for sounding crew alert (crew did not respond to alternative alert)   Low	1562	Crew BOP Training			High
1566   Crew BOP drills not recorded in tour reports (prior to commencement of operations or after BOP's installed)   Low	1563				High
Rig born inoperable or not in place for sounding crew alert (crew responded to alternative alert)   Low					High
Fluid Measurements & Hole-   Fluid Procedures   F					Low
Filling Procedures					Low
Filing   Procedures	1567			Rig pump and/or tank not on location where required	High
Servicing Certificate    Driller's certificate has expired   Driller's certificate has expired   High					riigii
Servicing Certificate    Driller's certificate has expired   Driller's certificate has expired   High	1568			Drill has never held valid certificate (regulation requiring Driller's certification is forthcoming)	High
Flame-type Equipment   Flame-type Equipment   Flame-type equipment operating within 25m of well bore (welder, steamer).   Low		Servicing Certificate			, and the second
Smoking Rules Being Observed   Member of rig crew or other individual observed smoking within 25m of wellbore.   Low					
Evidence of smoking within 25m of wellbore.   Low					
Remote controlled master valve on testing head not provided.   High		Smoking Rules Being Observed			
Remote controlled master valve on testing head not operating.   High	_				_
Reverse circulating sub not installed in test string.		DST Equipment			
1576   Warning Signs Posted In H2S   Warning sign not posted.					
1577   Warning sign illegible.   Low   Warning sign illegible.   Low   Warning sign posted on known sweet well.   Low   Low   High   Stabbing valve would not pressure test (after operations in progress).   High   High					
1578   Warning sign posted on known sweet well.   Low     1579   BOP Pressure Test Recorded & BOP Components not pressure tested.   High     1580   Stabbing valve would not pressure test (after operations in progress).   High     1581   Pressure test not recorded in tour reports.   Low     1582   Incomplete pressure test data recorded in tour reports.   Low     1583   Low-pressure test not conduct.   Low     1584   Low-pressure test not conduct prior to high-pressure test.   Low     1585   Improper test pressure used.   Low     1586   Pressure testing medium not low viscosity fluid.   Low     1587   Well control equipment testing times less than 10 minutes.   Low     1588   Daily Mechanical Test Recorded   Daily BOP mechanical tests not completed.   Low     1589   Daily mechanical tests not recorded.   Low     1590   Weekly Diesel Engine Tests   Diesel engine shut-off test not conducted prior to commencing operations.   Low     Low   Low     Low   Low     Low   Low   Diesel engine shut-off test not conducted prior to commencing operations.   Low     Low   Low   Low     Low   Low   Diesel engine shut-off test not conducted prior to commencing operations.   Low     Low   Low   Low   Low     Low   Low   Low   Low   Low     Low   Low   Low   Low   Low   Low     Low		Warning Signs Posted In H2S			
1579 BOP Pressure Test Recorded & BOP Components not pressure tested.   High					_
Stabbing valve would not pressure test (after operations in progress).   High		DOD Days are Took Days and all 0			
1581   Pressure test not recorded in tour reports.   Low     1582   Incomplete pressure test data recorded in tour reports.   Low     1583   Low-pressure test not conduct.   Low     1584   Low-pressure test not conduct opin to high-pressure test.   Low     1585   Improper test pressure used.   Low     1586   Pressure testing medium not low viscosity fluid.   Low     1587   Well control equipment testing times less than 10 minutes.   Low     1588   Daily Mechanical Test Recorded   Daily BOP mechanical tests not completed.   Low     1589   Daily mechanical tests not recorded.   Low     1590   Description of mechanical tests conducted incomplete.   Low     1591   Weekly Diesel Engine Tests   Recorded   Diesel engine shut-off test not conducted prior to commencing operations.   Low     1591   Low   Low     1591   Low   Low     1591   Low   Low   Low   Low     1592   Low   Low   Low   Low   Low     1593   Low   Low   Low   Low   Low     1594   Low   Lo		BOP Pressure Test Recorded &			
Incomplete pressure test data recorded in tour reports.   Low				Stabbing valve would not pressure test (after operations in progress).	
Low-pressure test not conduct.   Low				· ·	
Low-pressure test not conducted prior to high-pressure test.					
Improper test pressure used.   Low					
Pressure testing medium not low viscosity fluid.   Low				1 01	
1587   Well control equipment testing times less than 10 minutes.					
1588     Daily Mechanical Test Recorded     Low       1589     Daily mechanical tests not recorded.     Low       1590     Description of mechanical tests conducted incomplete.     Low       1591     Weekly Diesel Engine Tests Recorded     Diesel engine shut-off test not conducted prior to commencing operations.     Low       Recorded     Low					
1589   Daily mechanical tests not recorded.		Daily Machanical Tast Bassided			LOW
1590   Description of mechanical tests conducted incomplete.	1588	Daily Mechanical Test Recorded		Daily BOP mechanical tests not completed.	Low
1591 Weekly Diesel Engine Tests Recorded  Diesel engine shut-off test not conducted prior to commencing operations.  Low					Low
Recorded					Low
	1591			Diesel engine shut-off test not conducted prior to commencing operations.	Low
	1592			Diesel engine shut-off test, conducted prior to commencing operations, not recorded.	Low

			Noncompliant Event		
	Regulatory Authority	Compliance Category	(Noncompliance with the requirement)	Risk Rating	
1593			Weekly diesel engine shut-off test not conducted.	Low	
1594			Weekly diesel engine shut-off test not recorded.	Low	
	Diesel Engine Shut-Offs		Diesel engine shut-off did not operate.	Low	
1596	2.000. Zinginio eniat enia		Air supply not connected to diesel engine shut-off.	Low	
1597			Diesel engine not equipped with shut-off.	Low	
	Engine Exhausts		Engine exhausts in need of repair.	Low	
1599	Engine Exhausts		Engine exhausts not directed away from wellbore.	Low	
	End Of Flare Line		Flare line not 50m from wellbore.	Low	
1601	Ella Ol Flare Ellic		Flare pit improperly constructed.	Low	
	Rubbish Burn Pile		Camp and rig combustible debris not being disposed of properly as required by Appendix 1100.	Low	
1603	Rubbish Built lie		Information not readily available to show proper characterization of wastes generated on site (Dangerous / Non-	LOW	
1003			dangerous) (e.g. CAODC wall chart).	Low	
1604			Waste generated on site not properly stored (i.e. Secondary containment).	Low	
1605			Waste material generated on site disposed of at a facility not approved to handle that specific waste.	Low	
1606			Records not available showing source, volume and final disposition of waste.	Low	
1607	Crude Oil Storage Tank		Crude oil storage tank located within 50m of wellbore.	Low	
1608	Crude Oil Storage Tarik		Service rig tank located within 7m of rig pump.	Low	
	Condensate Rules Being		Open tank used for storing or gauging or measuring the pumping rate.	LOW	
1009	Observed		Open talk used for storing or gauging or measuring the pumping rate.	High	
1610	Observed		Minimum distance of 50m not maintained between the wellhead and storage tank.	High	
1611	+		Positive shut-off valve not installed between pump and wellhead.	High	
1612			Check valve not installed between pump and wellhead.	High	
1613					
			Surface lines not pressure tested or test pressure inadequate.	High	
1614	Fluida Dana anki Cantain ad		Approval to use condensate for fracturing not obtained from Calgary office.  Workover or wellbore fluids spilled on or off lease and not reported. (Greater than 2m3 on lease, any volume off lease.).	Low	
1015	Fluids Properly Contained		workover or wellbore fluids spilled on or off lease and not reported. (Greater than 2m3 on lease, any volume off lease.).	High	
1616			Late notification to the AER of a reportable spill (licensee has taken appropriate measures to contain/clean-up prior to AER notification).	Low	
1617			Chemicals, mud additives, fuel, or other material spilled on or off lease.	High	
1618	Licence Posted		Well licence not at lease (well re-entry/not original licensee).	Low	
1619			Well licence not posted (well re-entry / not original licensee).	Low	
1620			Contractor and operator inspections not recorded.	Low	
1621			Contractor and operator detailed inspections not conducted.	Low	
1622			Contractor and operator daily inspections not conducted.	Low	
	Directive 037		Failure to produce documented practices at the well site for the safe management of the potential for explosive mixtures		
	(See also Directive 033)		and ignition in wells and associated surface equipment.	High	
1624	Directive 037		Failure to ensure that all well site staff responsible for well control and blowout prevention understand the documented		
	(See also Directive 033)		practices and know how to apply them.	High	
1625	Directive 037		Failure to effectively control any oil, gas or water encountered during drilling, testing, completion, or reconditioning		
	(See also OGCR Section 6.050		operations at the well.	High	
	and Directive 036)			9	
Direct	ive 038: Noise Control			<u></u>	
	Directive 038 Section 3.2	Noise	Failure to complete an acceptable noise impact assessment prior to application.	High	
	Directive 038 Section 5.2		Failure to meet the permissible sound levels at the nearest or most impacted dwelling.	High	
	al 001: Facility and Well Site Inspec	ctions	, and a man particular particular and the state measures of measures are simple and an energy	13	
	Waste Facilities				
For a list of the noncompliant events for the requirements that have been risk assessed in the Waste Facilities Compliance Category please refer to Manual 001: Facility and Well Site					
	ctions.		and the state of t		
	al 001: Facility and Well Site Inspec	ctions			
Marida 001.1 aclinty and Well Site hispections					

Well Site Inspections.

Oil Facilities/Gas Facilities

For a list of the noncompliant events for the requirements that have been risk assessed in the Oil Facilities/Gas Facilities Compliance Category please refer to Manual 001: Facility and

	Noncompliant Event			
	Regulatory Authority	Compliance Category	(Noncompliance with the requirement)	Risk Rating
1628	ID 2001-03	Sulphur Recovery Guidelines	Failure to meet the approved calendar quarter-year sulphur recovery efficiency	High
1629			Exceeding approved maximum daily sulphur inlet rate	Low
1630			Exceeding 125% baseline sulphur inlet	Low
1631			Failure to maintain credit balance	Low
1632			Monthly sulphur balance out more than 5%	Low
1633	Directive 039	Glycol Dehydrator Benzene Emissions	Individual dehydrator(s) or site dehydrator benzene emissions over the limits	High
1634			Failure to notify resident(s) within 750 meters of a dehydrator (for new, relocated, or existing glycol dehydrators)	Low
1635			Dehydrator Engineering and Operations Sheet (DEOS) not done, incomplete/inaccurate, and/or not posted	Low
1636			Failure to submit annual Dehydrator Benzene Inventory List as required	Low
Manu	al 001: Facility and Well Site Insp	<u>pections</u>		-
		Well Site Inspections		
Inspe	list of the noncompliant event ections. al 002: Drilling Waste Inspection	•	een risk assessed in the Well Site Inspection Compliance Category please refer to Manual 001: Facility and Well Si	te
For a	list of the noncompliant event		। een risk assessed in the Drilling Waste Compliance Category please refer to Manual 002: Drilling Waste Inspection	ıs.
	·	•		
Manu	al 005: Pipeline Inspections	Di ii		
		Pipelines		
		-	een risk assessed in the Pipeline Compliance Category please refer to Manual 005: Pipeline Inspections.	
		for the Upstream Petroleum Industry (	references are to Directive 055 sections)	
1637	General storage practices Directive 055 Section 3		Materials not consumed within two years.	Low
1638			Oilfield wastes/empty barrels stored more than one year.	Low
1639			All temporary single-walled aboveground tanks not diked (unless operation qualifies for it to be optional).	High
1640			Temporary tank (not diked) not emptied or removed from site within 72 hours of completing the operation (drilling, completions, testing, or servicing operations).	Low
1641			Contaminated material stored directly on the ground.	High
	Siting of storage areas/facilities Directive 055 Section 3.6		Not readily accessible for fire fighting and other emergency procedures.	Low
1643	Bricotive dod dedition d.d		Located on a floodplain.	Low
1644			Located within 100 m of normal high-water mark of a body of water, permanent stream, or water well used for domestic purposes.	Low
1645	Aboveground storage tank(s) with an internal volume less than 5 m3 Directive 055 Section 5.1		Not externally coated or made from weather and corrosion-resistant material.	Low
1646	Aboveground storage tank(s) with internal volume equal to or greater than 5 m3 Directive 055 Section 5.3		Steel tank(s) not externally coated.	Low
1647			Spill control device(s) not installed/inadequate.	Low
1648			No measures in place to prevent overfilling of tanks.	Low
1649			No tank dike where required.	High
1650			Liner not installed where required/insufficient liner.	Low
1651			Tank loading/unloading areas not designed to contain spills or leaks.	Low
1652			Tank dike(s) deteriorating, developing leaks, or unable to withstand hydrostatic head.	Low
1653			Insufficient tank dike capacity.	Low
1654			Tank dike(s) contain openings (e.g., open dike drains).	Low

	Donaldon Authority	Compliance Cotomony	Noncompliant Event	Diel Detine
	Regulatory Authority	Compliance Category	(Noncompliance with the requirement)	Risk Rating
1655			Impervious liner does not cover the dike and the area within the dike not keyed into dike walls	Low
1656			Aboveground tank not tested at the required five-year frequency; operator cannot demonstrate tank integrity	Low
1657			Inadequate leak detection methods.	Low
1658			Indoor aboveground storage tanks not surrounded by containment device and/or drain and collection tank with sufficient capacity.	Low
1659	Double-walled tanks with		No measures in place to prevent overfilling of tank(s) (alarms/automatic shutoffs).	
	internal volume >5 m3 Directive 055 Section 5.33			Low
1660			Spill control device(s) not installed/inadequate.	Low
1661			No system to monitor interstitial space.	Low
1662			No barriers to protect tank from vehicular damage.	Low
1663			Automatic shutdown system not checked on a monthly basis.	Low
	Underground storage tank(s)		No leak detection and secondary containment where required.	
	including associated piping Directive 055 Section 6.0		The same account and account account and account account account and account account account account and account accou	High
1665	2		Underground storage tank(s) not double walled (tanks installed after October 31, 2001).	High
1666			Newly installed tank(s) and associated piping not tested prior to service.	High
1667			Steel tank(s) not cathodically protected or externally coated.	Low
1668			Tank loading/unloading areas not designed to contain spills or leaks.	Low
1669			Spill control devices not installed/inadequate.	Low
1670			Tank breathing vents not designed to prevent fluid overflow.	Low
1671			No measures in place to prevent overfilling of tanks.	Low
1672			Underground tank(s) not tested at the required three-year frequency; operator cannot demonstrate tank integrity.	Low
	Storage containers with		Insufficient or no secondary containment (dikes, curbs, and collection trays).	LOW
1073	combined volume >1 m3 on site		insulicient of the secondary containment (dixes, curbs, and conection trays).	Low
	Directive 055 Section 7			LOW
1674	*		No weather protection where required	Low
	Bulk pads for the storage of		No weather protection where required.  Using concrete as primary containment where there is potential for stored materials to leach (bulk pads constructed after	LOW
1075	solid materials			Low
			October 31, 2001).	Low
4070	Directive 055 Section 9		Net an elevated of a compact of allow provide times accounts an earliest	1
1676			Not constructed of compacted clay, synthetic liner, concrete, or asphalt.	Low
1677			No continuous curb on three sides and/or curb height not minimum 15 cm.	Low
1678			No leachate collection or leak detection system where required.	High
1679	Inspection, monitoring, and		Inventory records for last two years not available.	1
	record keeping			Low
1000	Directive 055 Section 10			
1680			Records of inspection and corrosion monitoring programs not available.	Low
1681			Other records not available where required.	Low
1682			Applicable approvals, licences, or permits not on site or at field/plant offices.	Low
1683	Withdrawal of storage tanks		Aboveground/underground tanks out of service do not meet the requirements.	
	from service			Low
	Directive 055 Section 12			
1684	Siting of storage areas/facilities		Not readily accessible for fire fighting and other emergency procedures.	Low
	Directive 055 Section 3.6			2011
1685			Located on a floodplain.	Low
1686			Located within 100 m of normal high-water mark of a body of water, permanent stream, or water well used for domestic purposes.	Low
1687	Aboveground storage tank(s)		Not externally coated or made from weather and corrosion-resistant material.	
	with an internal volume less			l
	than 5 m3			Low
	Directive 055 Section 5.1			

	<b>5</b> 14 4 4 5	0 " 0 '	Noncompliant Event	D: 1 D ()
	Regulatory Authority	Compliance Category	(Noncompliance with the requirement)	Risk Rating
1688	Aboveground storage tank(s)		Steel tank(s) not externally coated.	
	with internal volume equal to or			Low
	greater than 5 m3 (Section 5.3)			
1689			Spill control device(s) not installed/inadequate.	Low
1690			No measures in place to prevent overfilling of tanks.	Low
1691			No tank dike where required.	High
1692			Liner not installed where required/insufficient liner.	Low
1693			Tank loading/unloading areas not designed to contain spills or leaks.	Low
1694			Tank dike(s) deteriorating, developing leaks, or unable to withstand hydrostatic head.	Low
1695			Insufficient tank dike capacity.	Low
1696			Tank dike(s) contain openings (e.g., open dike drains).	Low
1697			Impervious liner does not cover the dike and the area within the dike not keyed into dike walls	Low
1698			Aboveground tank not tested at the required five-year frequency; operator cannot demonstrate tank integrity	Low
1699			Inadequate leak detection methods.	Low
1700			Indoor aboveground storage tanks not surrounded by containment device and/or drain and collection tank with sufficient capacity.	Low
1701	Double-walled tanks with		No measures in place to prevent overfilling of tank(s) (alarms/automatic shutoffs).	
	internal volume >5 m3			Low
	Directive 055 Section 5.33			
1702			Spill control device(s) not installed/inadequate.	Low
1703			No system to monitor interstitial space.	Low
1704			No barriers to protect tank from vehicular damage.	Low
1705			Automatic shutdown system not checked on a monthly basis.	Low
1706	Underground storage tank(s)		No leak detection and secondary containment where required.	
	including associated piping			High
	Directive 055 Section 6.0			
1707			Underground storage tank(s) not double walled (tanks installed after October 31, 2001).	High
1708			Newly installed tank(s) and associated piping not tested prior to service.	High
1709			Steel tank(s) not cathodically protected or externally coated.	Low
1710			Tank loading/unloading areas not designed to contain spills or leaks.	Low
1711			Spill control devices not installed/inadequate.	Low
1712			Tank breathing vents not designed to prevent fluid overflow.	Low
1713			No measures in place to prevent overfilling of tanks.	Low
1714			Underground tank(s) not tested at the required three-year frequency; operator cannot demonstrate tank integrity.	Low
1715	Storage containers with		Insufficient or no secondary containment (dikes, curbs, and collection trays).	
	combined volume >1 m3 on site			Low
4740	Directive 055 Section 7		No. of the second of the secon	1
1716	Dully made fauther stores of		No weather protection where required.	Low
1/1/	Bulk pads for the storage of		Using concrete as primary containment where there is potential for stored materials to leach (bulk pads constructed after	1
	solid materials		October 31, 2001).	Low
1718	Directive 055 Section 9		Not constructed of compacted clay purthatic lines, consists, or consolt	Low
			Not constructed of compacted clay, synthetic liner, concrete, or asphalt.	Low
1719 1720			No continuous curb on three sides and/or curb height not minimum 15 cm.	Low
	Inspection, monitoring, and		No leachate collection or leak detection system where required.  Inventory records for last two years not available.	High
11/21	record keeping		Inventory records for last two years not available.	Low
	Directive 055 Section 10			Low
1722	Directive 000 Section 10		Records of inspection and corrosion monitoring programs not available.	Low
1723			Other records not available where required.	
1724			Applicable approvals, licences, or permits not on site or at field/plant offices.	Low
1124			Publicance approvate, incences, or permits not on site or at neturplant offices.	LUW

	Regulatory Authority	Compliance Category	Noncompliant Event (Noncompliance with the requirement)	Risk Rating
1725	Withdrawal of storage tanks		Aboveground/underground tanks out of service do not meet the requirements.	
	from service			Low
	Directive 055 Section 12			

Oil Sands Conservation Act (OSCA)

Oil Sands Conservation Rules (OSCR)
Oil and Gas Conservation Rules (OGCR)

1726	OSCR Section 2		Failure to meet the requirements set out in the guide published by the Regulator for the applications made under section	
	OSCA Sections 10, 11, 12, and 13	Mineable Oil Sands	10, 11, 12 or 13 of the Act.	Low
	OSCR Section 3(1)		Failure to obtain approval from the Regulator prior to commencing, suspending or abandoning an oil sands site, an experimental scheme, an in situ operation, a mining operation or a processing plant.	High
	OSCR Section 3(2)		Failure to obtain approval from the Regulator prior to commencing any substantial modification at an oil sands site, an experimental scheme, an in situ operation, a mining operation or a processing plant.	High
	OSCR Section 3(3)		Failure to obtain approval to produce gas from a well completed in the oil sands strata, unless the Regulator has exempted the well from the application of this subsection.	High
	OSCR Section 3(4)		Failure to make an application by the well licensee in accordance with subsection 3(3) and Failure to include the documentation required by the Regulator.	High
	OSCR Section 4(1)		Failure to apply for and obtain a license prior to drilling a well or undertaking any operations preparatory or incidental to drilling except surveying for: (a) evaluation wells & (d) any water supply well of a depth of more than 150 m.	High
	OSCR Section 4(2) (See also OGCR Parts 3, 6, 8, and 11)		Failure to carry out any operations incidental to the drilling of a well or continuing any drilling operations, servicing operations, producing operations or injection operations for a well in accordance with the requirements of Parts 3, 6, 8 and 11 of the OGCR.	Low
733	OSCR Section 4(3) (See also OGCR Part 3)		Failure to apply for and obtain a license before suspending normal drilling operations, abandoning the well, plugging back or abandoning a formation in the well, removing a casing from the well or resuming drilling operations after a previous suspension or abandonment of the well in accordance with Part 3 of the OGCR.	High
734	OSCR Sections 4(6) and 5		Failure to utilize conductor pipe and a diverter system if there is any indication that gas may be encountered during drilling of any oil sands evaluation well within an approved mine site, notwithstanding subsection (5) of the OSCR.	High
735	OSCR Section 4(7) (See also OGCR Part 11)		Failure to submit to the Regulator all well data, analyses, tests, surveys and logs in accordance with Part 11 of the OGCR.	Low
736	OSCR Section 5 (See also OGCR Parts 6, 7, and 8)		Failure to comply with Parts 6, 7, and 8 of the OGCR with regards to drilling, completion, servicing and production operations.	Low
	OSCR Section 6		Failure by the operator to burn gas with a hydrogen sulphide content of greater than 10 moles per kilomole using an incinerator or through a flare line as detailed in the OSCR if: (a) a flare line is installed for routine flaring or burning of gas during normal operations, (b) a pressure relief valve, rupture disk or burst plate is installed on a separator or other pressure vessel & (c) gas is discharged during any test, cleaning or servicing operation.	High
	OSCR Section 7(1)(a)		Failure to erect signs, as specified by the Regulator, at the entrance to the site warning of the presence of poisonous gas at an oil sands site that is handling gas with a hydrogen sulphide content that exceeds 10 moles per kilomole.	Low
739	OSCR Section 7(1)(b)		Discharge to the atmosphere vapours or gas that have not been burned ensuring that the average concentration of hydrogen sulphide and sulphur dioxide does not exceed the maximum permissible concentrations determined by AB Env. By an operator that is handling gas with a hydrogen sulphide content that exceeds 10 moles per kilomole.	Low
	OSCR Sections 6 and 7(2)		Gas discharged pursuant to subsection (1)(b) has not been burned in accordance with section 6 of the OSCR.	High
741	OSCR Section 8		Failure to file an emergency response plan to the Regulator when requested that will be followed when (a) handling a gas with a hydrogen sulphide content greater than 10 moles per kilomole or (b) in the event of an uncontrolled emission of contaminants.	Low
	OSCR Section 9 (See also OGCR Part 8)		Failure by the operator to prevent loss, injury, damage and fire at an oil sands site in accordance with the requirements of Part 8 of the OGCR.	Low
	OSCR Section 10(1)		Written approval not obtained to cause or permit the burning of crude bitumen, gas, oily waste or discard or other material.	Low
744	OSCR Section 10(2)	·	Failure to immediately report to the Regulator effluent being burned under emergency conditions.	Low

	Regulatory Authority	Compliance Category	Noncompliant Event	Risk Rating
	Regulatory Authority	Compliance Category	(Noncompliance with the requirement)	KISK Katiliy
1745	OSCR Section 11		Venting, flaring or wasting of any significant amount of gaseous or liquid hydrocarbon without the permission of the	High
			Regulator except in case of an emergency.	_
	OSCR Section 13(1)		Failure to report to the Regulator any liquid spill, break in a vessel or fire that occurs on an oil sands site.	High
	OSCR Section 13(2)		Failure to provide the details that occurred during an incident as required in the OSCR.	Low
	OSCR Section 14		Failure to keep records and file with the Regulator any other reports that may be required.	Low
	OSCR Section 16		Inaccurate measurement, recording or reporting made to the Regulator.	High
1750	OSCR Section17		Failure to retain records at the place and by the person specified by this Regulation for a period of 18 months from the	Low
			time the record is made or any other period specified by the Regulator.	LOW
1751	OSCR Section 19		Failure to use the units and methods prescribed whenever the measurement of oil sands, crude bitumen, derivatives of	
			crude bitumen or oil sands products is required by the provision of (a) an Act, (b) a Regulation, (c) an order, direction,	High
			term or condition made or imposed by the Minister of Resource Development or the Regulator whether the provisions	riigii
			deal with conservation, preservation, utilization, taxation, royalties, or any other matter.	
1752	OSCR Section 20		Failure by an operator to measure oil sands, crude bitumen, derivatives of crude bitumen or oil sands products and all	
			significant process streams that have a bearing on the calculation of material balances of hydrocarbons or sulphur, in a	High
			manner satisfactory to the Regulator.	
1753	OSCR Section 21		Failure to convert volumes at standard temperature and pressure conditions.	Low
1754	OSCR Section 22		Failure to comply with the measurement requirements as set out in Part 14 of the OGCR and any other requirements	Lliab
	(See also OGCR Part 14)		specified by the Regulator.	High
1755	OSCR Section 24		Failure to apply for and obtain approval of the Regulator for the storage or disposal of any oil sands or discard	I II ada
			accumulated during mining or overburden removal.	High
1756	OSCR Section 24.1		Failure to apply and obtain approval of the Regulator for the management of tailings, and manage tailings in accordance	1.15 - 1-
	(See also Directive 074)		with Directive 074.	High
1757	OSCR Section 26		Failure to obtain approval for a mine site plan and for any changes to an approved annual mine plan that would reduce	117.1
			the amount of oil sands recovered.	High
1758	OSCR Section 27(a)		Mining operation carried out that makes the recovery of other oil sands more difficult.	Low
1759	OSCR Section 27(b)		Mining operation that does not maximize the recovery of all oil sands within the mine site.	High
	OSCR Section 27(c)		Mining operation that does not ensure public safety.	High
	OSCR Section 28(1)		Failure to drill and core a minimum of 4, essentially uniformly spaced, evaluation wells per section over any area that	Ŭ
	. ,		would be affected by construction of surface facilities, such as sites for processing plant or discard disposal.	High
1762	OSCR Section 28(2)		Failure to log the wells referred to in subsection (1) with acceptable deep induction, natural gamma ray radiation and	
	. ,		porosity measuring devices throughout the entire Wabiskaw-McMurray section unless the Regulator permits another type	Low
			of log or parts thereof to be substituted.	
1763	OSCR Section 28.1		Failure to submit a dedicated disposal area (DDA) plan in accordance with Directive 074, and obtain approval of the	
	(See also Directive 074)		Regulator for the DDA plan prior to construction.	High
1764	OSCR Section 29(1)		Failure to keep the daily record of operations accessible at the field office or other place of business.	Low
	OSCR Section 29(2)		Failure to supply to the Regulator on or before the 22nd day of the month, on Form S-23, the quality and quantity of oil	
			sands mined and the crude bitumen recovered during the preceding calendar month and the disposition thereof.	Low
1766	OSCR Section 30		Failure to submit to the Regulator by September 30 each year, details of its annual mine plan for the next calendar year of	
			operation, which shall include details as stated in the OSCR.	Low
1767	OSCR Section 30(f)		Failure to submit to the Regulator for its approval, by September 30 each year, details of its annual mine plan for the next	
	(See also Directive 074)		calendar year of operation which shall include a tailings management plan prepared in accordance with Directive 074.	Low
1768	OSCR Section 31		Failure to submit to the Regulator, on or before February 28 in each year, a report on the mining operations, overburden	
55	(See also Directive 074)		removal and discard site for the previous calendar year.	Low
1769	OSCR Section 32(1)		Failure to submit to the Regulator within 60 days of the end of each calendar year when requested, a summary report of	
55	(See also Directive 074)		geotechnical stability investigations.	High
1770	OSCR Section 32(2)		Failure to notify the Regulator forthwith of any collapse or instability within the mine site.	Low
	` '			LOW
1771			Failure to inform the Regulator of any collapse or instability within the mine site resulting in (a) a change in the annual	Low
			mine plan, (b) an interruption in the operator's ability to continue mining operations, (c) a possibility of a permanent loss of	Low
1770	OSCR Section 32(3)		recoverable oil sands.	
1//2			Failure to submit as requested by the Regulator, a geotechnical analysis of the collapse or instability and a description of	High
	(See also Directive 074)		any remedial action taken.	

	Regulatory Authority	Compliance Category	Noncompliant Event	Risk Rating
	Regulatory Authority	Compliance Category	(Noncompliance with the requirement)	KISK Kalling
1773	OSCR Section 32.1		Failure to submit to the Regulator, reports in accordance with Directive 074, which includes; annual status report	
	(See also Directive 074)		respecting fluid tailings ponds, annual compliance report respecting DDA's, annual status and quarterly progress reports	High
			respecting fines capture.	
1774	OSCR Section 48		Failure to apply for and obtain approval for the storage or disposal of any oil sands, coke, sulphur, precipitator ash or	
			other hydrocarbon effluent or discard associated with the processing plant in the interest of energy resource conservation.	High
	OSCR Section 49(a)		The operator has failed to maximize the processing of all oil sands and crude bitumen.	High
	OSCR Section 49(b)		The operator is not maximizing the yield of oil sands products.	Low
	OSCR Section 49(c)		Failure to minimize the discard of coke, sulphur or other by-products.	High
	OSCR Section 49(d)		The operator has failed to maximize the gathering and utilization of gas produced.	Low
1779	OSCR Section 49(e)		The operator has failed to maximize the gathering of gaseous mixtures containing hydrogen sulphide for delivery to the	High
1700	00000 11 10/0		sulphur recovery plant.	3
1780	OSCR Section 49(f)		The operator has failed to maximize the recovery of sulphur contained in the hydrogen sulphide delivered to the sulphur	High
4704	0000 0 + 40(-)		recovery plant.	1
	OSCR Section 49(g)		The operator has failed to minimize the use of fresh make-up water and the disposal of waste water.	Low
	OSCR Section 49(h) OSCR Section 51		The operator has failed to maximize the recycle of produced water.	Low
1/83	OSCR Section 51		The operator of a processing plant discharges any gas containing hydrogen sulphide, unless it is burned so that	Low
1704	OSCR Section 54(a)		essentially all of the sulphur is converted to sulphur dioxide.	
1784	OSCR Section 54(a)		Failure to file, 6 months after commencement of operations or after any modifications that required an amendment to the	Low
			approval, the design and operating parameters including PDFs and measurement procedures as specified in the OSCR.	Low
1785	OSCR Section 54(b)		Failure to provide the Regulator or an authorized employee access at its plant site to piping and measurement drawings,	
1703	OSCIT Section 54(b)		operating procedures and equipment specifications.	Low
1786	OSCR Section 55		Failure to keep at the plant site, or other place of business a daily record of all oil sands, crude bitumen or oil sand	
1700	OSCIN Section 33		products received into the processing plant with details as indicated in the OSCR.	Low
1787	OSCR Section 56		Failure to file on or before the 22nd of each month, monthly statements on Form S-23 of the oil sands, crude bitumen, oil	
1	33311 33311 33		sand products, marketable gas and the condensate received at the plant, and the quantity and quality of oil sands	Low
			products derived, stored and delivered for the preceding month.	2011
1788	OSCR Section 57(1)		An operator producing hydrogen sulphide or other sulphur compounds fails to file on or before the 22nd day of each	
			month, statements of monthly processing plant sulphur balance and a sulphur plant sulphur balance including the details	Low
			as indicated in the OSCR.	
1789			Failure to submit daily reports as stated in 57(1) as required on a temporary basis by the Regulator.	Low
	OSCR Section 57(2)		Failure to submit the reports on a daily basis.	Low
	OSCR Section 58		Failure to submit on or before the 28th day of February of each year, a report of operations conducted during the	1
			preceding calendar year including the details as specified in the OSCR.	Low
1792			Failure to meet CT performance requirement.	High
1793			The alteration, removal or destruction of a record or measurement required to be kept by the OSCA or OSCR.	Low
1794	OSCR Section 20		Meter run and measurement device not installed and operated as specified and approved within S-23 Production	Low
	(See also Directive 073)		Accounting Manual.	Low
1795	OSCR Section 20		Stock tank vapours not estimated as specified and approved within the S-23 Production Accounting Manual.	Low
	(See also Directive 073)			Low
1796	OSCA Section 3(g)		Bullplugs not installed on hydrocarbon process piping drains.	Low
	(See also Directive 073)			LOW
1797	OSCR Section 13		Late notification of a reportable spill to AER.	Low
	(See also Directive 073)			
	OSCA Section 10(3)(a)		Operator exceeded the solvent/diluent losses requirement as specified in the approval.	High
1799	OSCA Section 10(3)(a)		Operator failed to meet the requirement of an approval condition by discharging untreated froth treatment tailings to a	High
			pond.	_
	OSCA Section 10(3)(a)		Operator exceeded the asphaltene rejection limits specified in the approval.	High
	OSCA Section 10(3)(a)		Operator failed to file measurement plans with the AER as required.	Low
	OSCR Section 20		Failure by an operator to meet the PM schedule as specified in the S-23 manual.	Low
1803	OSCR Section 20		Failure by an operator to meet sample attainment requirements as specified in the S-23 manual.	Low

Risk Rating   1404 GSCR Section 20		Annual of the Annual Control	0	Noncompliant Event	Diele Detiese
Failure by an operator to meet service factor requirements as specified in the S-23 manual.   Low   Directive 1005 (OSCR Section 20   Failure to address to 52 measurement methodology.   Low   Directive 1005 (OSCR Section 20   Failure to address to 52 measurement methodology.   Low   Directive 1005 (OSCR Section 20   Failure to methodology.   Low   Failure to methodology.   High   Pailure to methodology.   Pailure to methodology.   High   High   Pailure to methodology.   Low   Pailure to provide the AER with acceptable report at the condition of an exploration program.   Low   Pailure to provide the AER with acceptable report at the condition of an exploration program.   Low   Pailure to provide the AER with acceptable to the AER and consistent with good onservation.   Low   Pailure to provide the AER with acceptable to the AER and consistent with good onservation.   Low   Pailure to provide the resource in a manner that is acceptable to the AER and consistent with good onservation.   Low   Pailure to methodology to the resource in a manner that is acceptable to the AER and consisten	K	regulatory Authority	Compliance Category	·	Risk Rating
Failure to achieve 16 201-103 Suightur Recovery Requirements for Old surface to 5-20 measurement methodology.	1804 O	SCR Section 20			High
Discource (REC Operating Criterian Resource Recovery Recovery Experiments for Oil Sands Mine and Procession Plant Coperations.   High   1978   Failure to maintain the sterilization of oil sands.   High   Failure to maintain the sterilization of oil sands.   High   H	1805 O	SCR Section 20		Failure by an operator to meet service factor requirements as specified in the S-23 manual.	Low
Failure to meet bitumen recovery requirements as stated.   High	1806 O	SCR Section 20		Failure to adhere to S-23 measurement methodology.	Low
Failure to minimize the stentilization of all sands.   High	Directive	e 082: Operating Criteria: Resou	rce Recovery Requirements for Oil		
Interim Directive ID 2001-03 Sulphur Recovery Guidelines for the Province of Alberta 1909   Failure to meet the approved calendar quarter-year sulphur recovery efficiency.   High 1810   Exceeding approved maximum daily sulphur inlet rate.   Low 1811   Monthly sulphur balance out more than 5%.   Low 1812   Acid gas faring plant exceeding maximum grandsthered capacity.   Low 1812   Acid gas faring plant exceeding maximum grandsthered capacity.   Low 1812   Low 2812   Acid gas faring plant exceeding maximum grandsthered capacity.   Low 1812   Low 2812   Low				Failure to meet bitumen recovery requirements as stated.	High
Failure to meet the approved calendar quarter year sulphur recovery efficiency.   High	1808			Failure to minimize the sterilization of oil sands.	
Exceeding approved maximum daily subplur linet rate.   Low   Monthly subplur bilance out more than 5%.   Low   1912   Acid gas flaring plant exceeding maximum grandsthered capacity.   Low   Low   1914   Exceeding 15% baseline subplur linet.   Low   Low   1914   Exceeding 15% baseline subplur linet.   Low   1915   CA & CCR   Enlare to maintain credit balance.   Low   1915   CA & CCR   Enlare to provide the AER with acceptable report at the conclusion of an exploration program.   High   1916   CCA & CCR   Failure to provide the AER with acceptable report at the conclusion of an exploration program.   Low   1916   CCA & CCR   Failure to provide the AER with acceptable report at the conclusion of an exploration program.   Low   1916   CCA & CCR   Failure to provide the AER with acceptable report at the conclusion of an exploration program.   Low   1916   CCA & CCR   Failure to provide the AER with acceptable report at the conclusion of an exploration program.   Low   1916   CCA & CCR   Failure to paylor to diff for considerable report at the conclusion of an exploration program.   Low   1918   CCA & CCR   Failure to paylor to diff for considerable report at the conclusion of an exploration program.   Low   1918   CCA & CCR   Failure to paylor to diff for considerable report at the conclusion of an exploration program.   Low   1918   CCA & CCR   Failure to paylor to diff for considerable report at a scenario program in approve.   Low   1918   CCA & CCR   Failure to a paylor to diff for considerable report at a time report.   Low   1918   CCA & CCR   Failure to a paylor to diff for considerable report and programs in a paylor with a paylor and programs in approval.   Low   1918   CCA & CCR   Failure to a paylor to diff for considerable report and report c	Interim E	Directive ID 2001-03 Sulphur Re	covery Guidelines for the Province of	of Alberta	
Exceeding approved maximum daily subplur linet rate.   Low   Monthly subplur bilance out more than 5%.   Low   1912   Acid gas flaring plant exceeding maximum grandsthered capacity.   Low   Low   1914   Exceeding 15% baseline subplur linet.   Low   Low   1914   Exceeding 15% baseline subplur linet.   Low   1915   CA & CCR   Enlare to maintain credit balance.   Low   1915   CA & CCR   Enlare to provide the AER with acceptable report at the conclusion of an exploration program.   High   1916   CCA & CCR   Failure to provide the AER with acceptable report at the conclusion of an exploration program.   Low   1916   CCA & CCR   Failure to provide the AER with acceptable report at the conclusion of an exploration program.   Low   1916   CCA & CCR   Failure to provide the AER with acceptable report at the conclusion of an exploration program.   Low   1916   CCA & CCR   Failure to provide the AER with acceptable report at the conclusion of an exploration program.   Low   1916   CCA & CCR   Failure to paylor to diff for considerable report at the conclusion of an exploration program.   Low   1918   CCA & CCR   Failure to paylor to diff for considerable report at the conclusion of an exploration program.   Low   1918   CCA & CCR   Failure to paylor to diff for considerable report at the conclusion of an exploration program.   Low   1918   CCA & CCR   Failure to paylor to diff for considerable report at a scenario program in approve.   Low   1918   CCA & CCR   Failure to a paylor to diff for considerable report at a time report.   Low   1918   CCA & CCR   Failure to a paylor to diff for considerable report and programs in a paylor with a paylor and programs in approval.   Low   1918   CCA & CCR   Failure to a paylor to diff for considerable report and report c	1809			Failure to meet the approved calendar quarter-year sulphur recovery efficiency.	High
Sex   Acid gas fairing plant exceeding maximum grandfathered capacity.   Low	1810			Exceeding approved maximum daily sulphur inlet rate.	Low
Exceeding 125% baseline sulphur inlet.   Low				Monthly sulphur balance out more than 5%.	Low
Failure to maintain credit balance.   Low	1812				Low
Coal Conservation Aut (CCA) Coal Mines  Failure to post the required abandonment security for a mining operation.  Failure to provide the AER with acceptable report at the conclusion of an exploration program.  Low  Failure to provide the AER with acceptable report at the conclusion of an exploration program.  Low  Failure to recovery the resource in a manner that is acceptable to the AER and consistent with good conservation practices.  Low  Failure to submit an accurate reclamation plan when submitting an application for a mine permit or licence.  Low  Failure to submit an accurate reclamation plan when submitting an application for a mine permit or licence.  Low  Failure to submit environmental assessments in a time was provided from the constitution of the permit or licence.  Low  Failure to submit environmental assessments in a time was provided from the constitution for a mine permit or licence.  Low  Failure to submit environmental assessments in a time was part of the constitution for a mine permit or licence.  Low  Failure to submit infrastructure plans in a firmly manner.  Low  Failure to meet consultation and notification requirement of approval.  Low  Failure to meet consultation and notification requirement of approval.  Low  Operator fails to meet exploration programs in a firmly manner.  Low  Operator fails to construct discard site to ensure station requirement of approval.  Low  Operator fails to meet technical requirements of approval.  Failure to meet to construct discard site to ensure station or exploration and manufaction requirements of approval.  Low  CoA & COR  Failure to meet to construct discard site to ensure station or exploration and provide a preliminary and conditions.  High  Failure to monitor the performance of the portal pad, highwall and roof control programs and submit a report.  Low  Failure to advise the Regulator approval.  Failure to advise the Regulator approval and absortion al retrieval and being attributable to design features or operational methods which are the sub	1813			Exceeding 125% baseline sulphur inlet.	Low
Coal Mines   Failure to post the required abandonment security for a mining operation.   High	1814			Failure to maintain credit balance.	Low
1815   CCA & CCR   Failure to post the required abandonment security for a mining operation.   High   1816   CCA & CCR   Failure to provide the AER with acceptable to the AER and consistent with good conservation   Low   Failure to recovery the resource in a manner that is acceptable to the AER and consistent with good conservation   Low   Failure to submit an accurate reclamation plan when submitting an application for a mine permit or licence.   Low   Failure to submit an accurate reclamation plan when submitting an application for a mine permit or licence.   Low   Failure to submit environmental assessments in a timely manner.   Low   Failure to submit environmental assessments in a timely manner.   Low   Failure to plan and submit infrastructure in a timely manner.   Low   Failure to plan and submit infrastructure in a timely manner.   Low   Failure to plan and submit infrastructure in a timely manner.   Low   Failure to ment consultation and notification requirement of approval.   Low   Failure to meet consultation and notification requirement of approval.   Low   Failure to meet consultation programs in a timely manner.   Low   Failure to meet consultation programs in a timely manner.   Low   Failure to meet consultation programs in a timely manner.   Low   Failure to meet consultation programs in a timely manner.   Low   Failure to meet consultation programs in a timely manner.   Low   Failure to meet consultation programs in a timely manner.   Low   Failure to meet propriet of programs in a timely manner.   Low   Failure to meet propriet of programs in a timely manner.   Low   Failure to meet propriet of programs in a timely manner.   Low   Failure to meet propriet of programs in a timely manner.   Low   Failure to meet propriet of programs in a timely manner.   Low   Failure to meet technical requirements of approved conditions.   High   Failure to submit a report are technical requirements of approved conditions.   High   Failure to montive the performance of the portal pair, injurial and programs a					
Failure to provide the AER with aceptable report at the conclusion of an exploration program.   Low practices.					
Failure to recovery the resource in a manner that is acceptable to the AER and consistent with good conservation practices.			Coal Mines		High
practices.    Bitalizer to submit an accurate reclamation plan when submitting an application for a mine permit or licence.   Low					Low
practices   prac	1817 C	CA & CCR		Failure to recovery the resource in a manner that is acceptable to the AER and consistent with good conservation	Low
Failure to apply to drill for coal to a depth in excess of 150 meters, or develop an adit, tunnel, or excavation of coal.   Low				practices.	LOW
Failure to submit environmental assessments in a timely manner.   High					Low
Eallure to plan and submit infrastructure plans in a timely manner.   Low					Low
Failure to meet consultation and notification requirement of approval.   High				Failure to submit environmental assessments in a timely manner.	High
Failure to meet exploration programs in approval.   Low					Low
CCA & CCR   Operator fails to construct discard sile to ensure stability.   High				Failure to meet consultation and notification requirement of approval.	High
Disposal of discard material in a manner that did not reduce the potential for spontaneous combustion.   High					
Page   CCA & CCR   Operator fails to meet technical requirements of approval conditions.   High					High
Failure to submit a report as required by approval conditions.   Low					
Failure to monitor the performance of the portal pad, highwall and roof control programs and submit a report.   High					High
1829   CCA & CCR   CCR   CCA & CCR   Failure to mine and operate in accordance with the application.   High					
Second Commence   Pallure to mine and operate in accordance with the application.   High					High
Sperations   Spe	1829 C	CA & CCR		Operator failure to seal and abandon all entrances to the underground mine within 6 months of completion of mining	High
Failure to advise the Regulator and provide a preliminary assessment of any incident or accident affecting, or having potential for affecting, safety or environment and being attributable to design features or operational methods which are the subject of the Regulator approval.  Failure to reclaim all disturbed areas in a manner satisfactory to the Regulator and AESR upon completion of excavation activities.  Failure to notify the Regulator of commencement of excavation activities.  Low  Failure to notify the Regulator of commencement of excavation activities.  Low  Failure to notify the Regulator of commencement of excavation activities.  Low  Failure to notify the Regulator of commencement of excavation activities.  Low  Failure to notify the Regulator of change of ownership of a mine.  Low  Operator materially alters the program of operations on which the holder's permit or licence was granted without Regulator approval.  High  CCR Section 79  Measurement of coal is not satisfactory to the Regulator.  Low  Mining within 400 m of infrastructure, other mining operation or oil or gas well without approval.  High  CCR Section 70  Mining or processing of coal within 400 m of corporate limits without approval.  High  CCA & CCR  Drilling for coal within 400 m of underground mine workings without written permission.  High  CCA & CCR  Failure to provide monthly production reports or 1st and 3rd quarter reports.  Low  Failure to keep at the mine office full and complete record of the operation, in a form satisfactory to the Regulator.  Low  Failure to keep at the mine office full and complete record of the operation, in a form satisfactory to the Regulator.					_
Dotential for affecting, safety or environment and being attributable to design features or operational methods which are the subject of the Regulator approval.    Failure to reclaim all disturbed areas in a manner satisfactory to the Regulator and AESR upon completion of excavation activities.   High				Failure to mine and operate in accordance with the application.	High
the subject of the Regulator approval.  Failure to reclaim all disturbed areas in a manner satisfactory to the Regulator and AESR upon completion of excavation activities.  Failure to notify the Regulator of commencement of excavation activities.  Low  1834 CCA & CCR Failure to notify the Regulator of change of ownership of a mine.  Low  1835 CCA & CCR Operator materially alters the program of operations on which the holder's permit or licence was granted without  High  CCA & CCR Mining within 400 m of infrastructure, other mining operation or oil or gas well without approval.  High  1838 CCR Section 70 Mining or processing of coal within 400 m of corporate limits without approval.  High  1839 CCA & CCR Drilling for coal within 400 m of underground mine workings without written permission.  High  CCA & CCR Failure to provide monthly production reports or 1st and 3rd quarter reports.  Low  Failure to keep at the mine office full and complete record of the operation, in a form satisfactory to the Regulator.  Low  Failure to keep at the mine office full and complete record of the operation, in a form satisfactory to the Regulator.  Low  Failure to keep at the mine office full and complete record of the operation, in a form satisfactory to the Regulator.  Low  Failure to keep at the mine office full and complete record of the operation of reproduction drillholes, as soon as possible after the	1831 C	CA & CCR			
Failure to reclaim all disturbed areas in a manner satisfactory to the Regulator and AESR upon completion of excavation activities.    Failure to notify the Regulator of commencement of excavation activities.   Low					High
activities.  1833 CCA & CCR Failure to notify the Regulator of commencement of excavation activities.  1834 CCA & CCR Failure to notify the Regulator of change of ownership of a mine.  1835 CCA & CCR Operator materially alters the program of operations on which the holder's permit or licence was granted without Regulator approval.  1836 CCR Section 79 Measurement of coal is not satisfactory to the Regulator.  1837 CCA & CCR Mining within 400 m of infrastructure, other mining operation or oil or gas well without approval.  1838 CCR Section 70 Mining or processing of coal within 400 m of corporate limits without approval.  1839 CCA & CCR Drilling for coal within 400 m of underground mine workings without written permission.  1840 CCA & CCR Failure to provide monthly production reports or 1st and 3rd quarter reports.  1841 CCA & CCR Failure to keep at the mine office full and complete record of the operation, in a form satisfactory to the Regulator.  1842 CCA & CCR Fails to provide to the Regulator hole particulars, other than for preproduction drillholes, as soon as possible after the					
1833 CCA & CCR 1834 CCA & CCR 1835 CCA & CCR 1836 CCA & CCR 1837 CCA & CCR 1837 CCA & CCR 1838 CCR Section 79 1838 CCR Section 79 1839 CCA & CCR 1840 CCA &	1832 C	CA & CCR			High
Failure to notify the Regulator of change of ownership of a mine.   Low					ŭ
1835   CCA & CCR					Low
Regulator approval.  1836 CCR Section 79  Measurement of coal is not satisfactory to the Regulator.  1837 CCA & CCR  Mining within 400 m of infrastructure, other mining operation or oil or gas well without approval.  High  1838 CCR Section 70  Mining or processing of coal within 400 m of corporate limits without approval.  High  1839 CCA & CCR  Drilling for coal within 400 m of underground mine workings without written permission.  High  1840 CCA & CCR  Failure to provide monthly production reports or 1st and 3rd quarter reports.  Low  1841 CCA & CCR  Failure to keep at the mine office full and complete record of the operation, in a form satisfactory to the Regulator.  Low  1842 CCA & CCR  Fails to provide to the Regulator hole particulars, other than for preproduction drillholes, as soon as possible after the					Low
Regulator approval.   Regulator approval.   Regulator approval.   1836   CCR Section 79   Measurement of coal is not satisfactory to the Regulator.   Low	1835 C	CA & CCR			High
1837CCA & CCRMining within 400 m of infrastructure, other mining operation or oil or gas well without approval.High1838CCR Section 70Mining or processing of coal within 400 m of corporate limits without approval.High1839CCA & CCRDrilling for coal within 400 m of underground mine workings without written permission.High1840CCA & CCRFailure to provide monthly production reports or 1st and 3rd quarter reports.Low1841CCA & CCRFailure to keep at the mine office full and complete record of the operation, in a form satisfactory to the Regulator.Low1842CCA & CCRFails to provide to the Regulator hole particulars, other than for preproduction drillholes, as soon as possible after the					-
1838CCR Section 70Mining or processing of coal within 400 m of corporate limits without approval.High1839CCA & CCRDrilling for coal within 400 m of underground mine workings without written permission.High1840CCA & CCRFailure to provide monthly production reports or 1st and 3rd quarter reports.Low1841CCA & CCRFailure to keep at the mine office full and complete record of the operation, in a form satisfactory to the Regulator.Low1842CCA & CCRFails to provide to the Regulator hole particulars, other than for preproduction drillholes, as soon as possible after the					
1839   CCA & CCR   Drilling for coal within 400 m of underground mine workings without written permission.   High					
1840     CCA & CCR     Failure to provide monthly production reports or 1st and 3rd quarter reports.     Low       1841     CCA & CCR     Failure to keep at the mine office full and complete record of the operation, in a form satisfactory to the Regulator.     Low       1842     CCA & CCR     Fails to provide to the Regulator hole particulars, other than for preproduction drillholes, as soon as possible after the     Low					
1841     CCA & CCR       1842     CCA & CCR       Failure to keep at the mine office full and complete record of the operation, in a form satisfactory to the Regulator.       Low       1842     CCA & CCR       Fails to provide to the Regulator hole particulars, other than for preproduction drillholes, as soon as possible after the					
1842 CCA & CCR Fails to provide to the Regulator hole particulars, other than for preproduction drillholes, as soon as possible after the					Low
	1841 C	CA & CCR		Failure to keep at the mine office full and complete record of the operation, in a form satisfactory to the Regulator.	Low
	1842 C	CA & CCR		Fails to provide to the Regulator hole particulars, other than for preproduction drillholes, as soon as possible after the	Law
					LOW

	Regulatory Authority	Compliance Category	Noncompliant Event	Risk Rating
	Regulatory Authority	Compilative category	(Noncompliance with the requirement)	Trior training
1843	CCA & CCR		Operator does not conduct the operations in a manner that any flow of oil, gas, or water encountered during exploration	High
			or mining can be controlled, and if required by the Regulator contained.	riigii
1844	CCA & CCR		Failure to institute and carry out a program of environmental management within a mine site in a manner satisfactory to	∐iah
			the Regulator.	High
1845	CCA & CCR		Failure to apply for consent to suspend or abandon normal underground mine operations.	High
1846	CCA & CCR		Failure to apply to amend licence to extend or substantially modify a mining operation.	High
1847	CCA & CCR		Failure to submit application to construct an external mine discard dump.	High
1848	CCA & CCR		Failure to submit application to amend permit.	High
1849	CCA & CCR		Failure to submit permit application.	High
1850	CCA & CCR		Failure to submit exploration application, which includes drillholes deeper than 150 m, adit, bulk sample pit.	Low
1851	CCA & CCR		Failure to submit an application to commence mining at an abandoned mine or resume mining at a suspended mine.	High
1852	CCA & CCR	Coal Preparation Plants	Failure to submit a report as required by approval conditions.	Low
1853	CCA & CCR		Operator fails to operate the coal plant in a manner that results in the maximum practical recovery of marketable coal	Lliab
			from all raw coal mined and processed.	High
1854	CCA & CCR		Failure to advise the Regulator and provide a preliminary assessment of any incident or accident affecting, or having	
			potential for affecting, safety or environment and being attributable to design features or operational methods which are	High
			the subject of the Regulator.	
1855	CCA & CCR		Measurement of coal is not satisfactory to the Regulator	Low
1856	CCA & CCR		Mining or processing of coal within 400 m of corporate limits without approval.	High
1857	CCR Section 29		Failure to design a storage site for coal in a manner satisfactory to the Regulator to prevent the uncontrolled loss of coal	High
			and to prevent fire hazards.	riigii
1858	CCR Section 19(1)		Failure to apply to suspend operations at coal processing plant.	Low
	CCA Section 27			LOW
1859	CCR Section 15		Failure to apply for approval to resume operations at a previously shut-in or abandoned plant.	High
1860	CCR Section 14(1)		Failure to apply for an application to construct a new coal processing plant.	High
	CCA Section 23(1)			High

Oil Sands Conservation Act (OSCA)

Oil Sands Conservation Rules (OSCR)

Directive 051: Injection and Disposal Wells - Well Classifications, Completions, Logging, and Testing Requirements

Directive 081: Water Disposal Limits and Reporting Requirements for Thermal In Situ Oil Sands Schemes

Interim Directive ID 99-1 Gas/Bitumen Production in Oil Sands Areas Application, Notification, and Drilling Requirements

Informational Letter IL 85-12 Oil Sands Primary Production: Well Spacing Primary Recovery Scheme Approvals

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	Dogulatory Authority	Compliance Cotogony	Noncompliant Event	Risk Rating
	Regulatory Authority	Compliance Category	(Noncompliance with the requirement)	RISK Rating
	OSCA & OSCR		Improper fluid content.	High
	1		Injection prior to meeting Directive 051 requirements.	High
	OSCA & OSCR		Injection prior to meeting reporting requirements.	High
	OSCA & OSCR		Failure to measure/report volume/characteristics - fluids injected/produced.	High
	OSCA & OSCR		Inadequate measurement/reporting of fluid volume/characteristics.	High
	OSCA & OSCR		Exceeding specified crude bitumen production rates.	High
	OSCA & OSCR		Failure to meet MOP/comply with MOP requirements.	High
	OSCA & OSCR		Inadequate VRR.	High
	OSCA & OSCR		Altering/modifying scheme design or equipment without notification/approval.	High
	OSCA & OSCR		Altering design or equipment incompatible with/detrimental to scheme.	High
	OSCA & OSCR		Failure to evaluate the use of brackish water as required.	High
	OSCA & OSCR		Failure to monitor/report water use/water balance issues.	High
	OSCA & OSCR		Failure to monitor/report energy balances.	High
	OSCA & OSCR		Failure to conduct/report noise survey	High
	OSCA & OSCR	_	Failure to monitor/report scheme performance.	High
	OSCA & OSCR		Failure to monitor/report pressures.	High
	OSCA & OSCR		Failure to monitor/report cap rock temperatures.	High
	OSCA & OSCR	_	Failure to meet testing, sampling, and analysis requirements.	High
	OSCA & OSCR		Failure to report any detrimental effects of scheme operations.	High
	OSCA & OSCR		Failure to comply with Order in Council requirements.	High
	OSCA & OSCR	_	Failure to respond to the need to address unclear situations.	High
	OSCA & OSCR		Failure to resolve issues or notify the AER of unresolved issues.	High
	OSCA & OSCR		Misrepresentation of data in an application.	High
	OSCA & OSCR		Failure to meet conditions of approval.	High
	OSCA & OSCR	_	Failure to meet conditions of approval.	Low
	OSCA & OSCR		Failure to apply for a name change or approval transfer.  Failure to submit progress report.	Low
	OSCA & OSCR OSCA & OSCR		Failure to submit progress report. Failure to meet performance presentation requirements (content).	Low
	OSCA & OSCR	+	Failure to meet performance presentation requirements (content).  Failure to submit electronic copy of performance presentation 5 days prior to meeting.	High
	Directive 081 Section 5.3	+	Actual water disposal at the scheme exceeds the disposal limit.	High
	Directive 081 Section 4.1	+	Monthly injection facility water balance closure is greater than 5.0 per cent for three consecutive months.	High
	OSCA & OSCR	Experimental In Situ Oil Sands	Wasteful Operations.	riigii
1910	OSCA & OSCR	Schemes	Wastelul Operations.	High
1911	OSCA & OSCR	ochemes	Failure to comply with specified DSU.	High
	OSCA & OSCR		Failure to comply with specified target areas.	High
	OSCA & OSCR		Failure to comply with specified interwell buffers.	High
	OSCA & OSCR		Failure to comply with specified boundary buffers.	High
	OSCA & OSCR		Failure to commence injection.	High
	OSCA & OSCR		Approved injector not injecting.	High
	OSCA & OSCR		Injection of fluid without approval.	High
1918	OSCA & OSCR		Improper fluid content.	High
1919	(See also Directive 051)		Injection prior to meeting <i>Directive 051</i> requirements.	High
1920	OSCA & OSCR		Injection prior to meeting reporting requirements.	High
	OSCA & OSCR		Failure to meet MOP/comply with MOP requirements.	High
	OSCA & OSCR		Inadequate VRR.	High
1923	OSCA & OSCR		Altering design or equipment incompatible with/detrimental to scheme.	High
	OSCA & OSCR		Failure to evaluate the use of brackish water as required.	High
1925	OSCA & OSCR		Failure to monitor/report scheme performance.	High
	OSCA & OSCR		Failure to monitor/report pressures.	High
	OSCA & OSCR		Failure to monitor/report cap rock temperatures.	High
	OSCA & OSCR		Failure to meet testing, sampling, and analysis requirements.	High
1929	OSCA & OSCR		Failure to report any detrimental effects of scheme operations.	High

	Pogulatory Authority	Compliance Category	Noncompliant Event	Risk Rating
	Regulatory Authority	Compliance Category	(Noncompliance with the requirement)	Nisk Katilig
	OSCA & OSCR		Failure to comply with Order in Council requirements.	High
	OSCA & OSCR		Failure to respond to the need to address unclear situations.	High
	OSCA & OSCR		Failure to resolve issues or notify the AER of unresolved issues.	High
	OSCA & OSCR		Misrepresentation of data in an application.	High
	OSCA & OSCR		Failure to meet conditions of approval.	High
	OSCA & OSCR		Failure to meet conditions of approval.	Low
	OSCA & OSCR		Failure to apply for a name change or approval transfer.	Low
	OSCA & OSCR		Failure to submit progress report.	Low
	OSCA & OSCR		Failure to meet performance presentation requirements (content).	Low
	OSCA & OSCR		Failure to measure/report volume/characteristics - fluids injected/produced.	High
1940	OSCA & OSCR		Failure to submit electronic copy of performance presentation 5 days prior to meeting.	High
1941	ID 99-01	Gas Production in the Defined	Gas production in the oil sands strata without approval (Section 3 of the OSCR and 3.011 of the OSCR).	
	(See also OSCR Sections 3 and	Oil Sands Strata		High
	3.011)			
	ID 99-01		Gas production in contravention of a shut-in order.	High
1943	ID 99-01		Failure to comply with commingling requirements of shut-in order.	High
	ID 99-01		Failure to respond to the need to address unclear situations.	High
1945	ID 99-01		Failure to resolve issues or notify the AER of unresolved issues.	High
1946	ID 99-01		Misrepresentation of data in an application.	High
1947	ID 99-01		Failure to meet conditions of approval or shut-in order.	High
1948	ID 99-01		Failure to meet conditions of approval or shut-in order.	Low
1949	ID 99-01		Failure to submit Resource Management Report (no existing scheme).	Low
1950	OSCA & OSCR	In Situ Waterflood Schemes	Wasteful Operations.	High
1951	OSCA & OSCR		Failure to comply with specified DSU.	High
1952	OSCA & OSCR		Failure to comply with specified target areas.	High
	OSCA & OSCR		Failure to comply with specified interwell buffers.	High
1954	OSCA & OSCR		Failure to comply with specified boundary buffers.	High
1955	OSCA & OSCR		Failure to commence injection.	High
1956	OSCA & OSCR		Approved injector not injecting.	High
	OSCA & OSCR		Injection prior to meeting reporting requirements.	High
1958	OSCA & OSCR		Failure to meet MOP/comply with MOP requirements.	High
1959	OSCA & OSCR		Inadequate VRR.	High
	OSCA & OSCR		Altering design or equipment incompatible with/detrimental to scheme.	High
	OSCA & OSCR		Failure to evaluate the use of brackish water as required.	High
	OSCA & OSCR		Failure to monitor/report scheme performance.	High
	OSCA & OSCR		Failure to monitor/report pressures.	High
	OSCA & OSCR		Failure to meet testing, sampling, and analysis requirements.	High
	OSCA & OSCR		Failure to report any detrimental effects of scheme operations.	High
	OSCA & OSCR		Failure to comply with Order in Council requirements.	High
	OSCA & OSCR		Failure to respond to the need to address unclear situations.	High
	OSCA & OSCR		Failure to resolve issues or notify the AER of unresolved issues.	High
	OSCA & OSCR		Misrepresentation of data in an application.	High
	OSCA & OSCR		Failure to meet conditions of approval.	High
	OSCA & OSCR		Failure to meet conditions of approval.	Low
1972	OSCA & OSCR		Failure to apply for a name change or approval transfer.	Low
	OSCA & OSCR		Failure to submit progress report.	Low
	OSCA & OSCR		Failure to meet performance presentation requirements.	Low
	IL 85-12	Primary In Situ Oil Sands	Infill drilling without a primary scheme approval (IL 85-12).	
		Schemes	3 · · · · · · · · · · · · · · · · · · ·	High
1976	OSCA & OSCR		Failure to comply with specified DSU.	High
	OSCA & OSCR		Failure to comply with specified target areas.	High
	OSCA & OSCR		Failure to comply with specified interwell buffers.	High

Regulatory Authority	Compliance Category	Noncompliant Event (Noncompliance with the requirement)	Risk Rating	
1979 OSCA & OSCR		Failure to comply with specified boundary buffers.	High	
1980 OSCA & OSCR		Failure to comply with Order in Council requirements.	High	
1981 OSCA & OSCR		Failure to respond to the need to address unclear situations.	High	
1982 OSCA & OSCR		Failure to resolve issues or notify the AER of unresolved issues.	High	
1983 OSCA & OSCR		Misrepresentation of data in an application.	High	
1984 OSCA & OSCR		Failure to meet conditions of approval.	High	
1985 OSCA & OSCR		Failure to meet conditions of approval.	Low	
1986 OSCA & OSCR		Failure to apply for a name change or approval transfer.	Low	
1987 OSCA & OSCR		Failure to submit progress report.	Low	
1988 OSCA & OSCR		Failure to meet performance presentation requirements (content).	Low	
1989 OSCA & OSCR		Failure to measure/report.	High	
1990 OSCA & OSCR		Failure to submit electronic copy of performance presentation 5 days prior to meeting.	High	
Information Management / Regulatory Submission and Compliance				

## **Well Test**

Directive 040: Pressure and Deliverability Testing Oil and Gas Wells

Oil and Gas Conservation Rules (OGCR)

1991	Directive 040	Failur	ire to conduct and/or submit to the AER tests for all gas and oil wells and coalbed methane control wells in	
	(See also OGCR Sections	Pressure, Deliverability and Fluid accord	ordance with Directive 040 including annual field and pool testing and initial pressure, deliverability, drill stem, and	1
	11.005, 11.070, 11.102, 11.120,	Analysis Testing and Reporting fluid s	sampling analysis.	Low
	and 11.145)			
Wall	Log	<u> </u>		

## Well Log

Directive 080: Well Logging

Oil and Gas Conservation Rules (OGCR) Section 11 140

1992	Directive 080 (See also OGCR Section 11.140)	Well Logging Requirements	Failure to take logs in accordance with Directive 080 to measure the gamma ray response through casing from the base of surface casing to surface; and neutron response through casing from the base of surface casing to 25 metres below the surface.	High
1993	Directive 080 (See also OGCR Section 11.140)		Failure to take logs for vertical and deviated wells in accordance with Directive 080, to determine the lithology, fluid, and porosity of the strata from the total depth of the well to the base of surface casing before completion, abandonment or suspension of drilling operations.  Failure to take logs for horizontal wells in accordance with Directive 080, to measure the gamma ray of the strata from the total depth of the well to the base of surface casing before completion, abandonment or suspension of drilling operations.	Low
1994	Directive 080 (OGCR Sections 11.005 and 11.140)		Failure to submit to the Regulator a copy of each log, survey or chart taken at the well together with all pertinent data within one month of the rig release date of a well.	Low
1995	Directive 080 (See also OGCR Section 11.140)		Failure to submit to the Regulator any additional logs, including flow meter logs and related analysis, taken at the well after the original logging operation within one month of the run date of the log.	Low

## Well Data Services

Oil and Gas Conservation Rules (OGCR)

Directive 047: Waste Reporting Requirements for Oilfield Waste Management Facilities

Directive 059: Well Drilling and Completion Data Filing Requirements

Direct	ive doo. Well brilling and complet	ion Bata i ling requirements		
1996	OGCR Section 12.010	Well Drilling and Completion	Failure to submit Drilling Summary data electronically within 30 days of completing operations.	Low
		Data Requirements		LOW
1997	OGCR Section 12.010		Failure to submit Completion Summary data electronically within 30 days of completing operations.	Low
1998	OGCR Sections 6.030 and		Failure to submit Downhole Abandonment Summary data electronically within 30-days of completing operations.	Low
	12.010			LOW
1999	OGCR Sections 6.030 and	Well Drilling/Completion	Failure to submit hard-copy tour reports within 7 days after the acceptance of the electronic summary data for drilling,	Low
	12.010	Hardcopy Reports	completion, and abandonment operations.	LOW
2000	OGCR Sections 6.030 and	Directional Surveys	Failure to submit directional survey data.	Low
	12.010			Low

	Regulatory Authority	Compliance Category	Noncompliant Event	Risk Rating
		Compilation Gallegery	(Noncompliance with the requirement)	Thom realing
	uction Accounting			
	ve 007: Volumetric and Infrastruct			1
	OGCR Sections 12.030, 12.056, 12.060, 17.010	Monthly Volumetric Reporting	Failure to move facilities to an active operator in the Petrinex by the Amalgamation Established Date	Low
2002	OGCR Sections 12.030, 12.056, 12.060, 17.010 (See also Directive 007)		Volumetric data submitted to the AER through the Petrinex by an Amalgamated operator for a period during which the operator was inactive.	Low
2003	OGCR Sections 12.030, 12.056, 12.060, 17.010 (See also Directive 007)		(VME0001) Facility is missing for current month.	Low
2004	OGCR Sections 12.030, 12.056, 12.060, 17.010 (See also Directive 007)		(VME0002) Amendment is missing for a prior month due to change to a disposition volume.	Low
	OGCR Sections 12.030, 12.056, 12.060, 17.010 (See also Directive 007)		(VME0003) Amendment is missing for a prior month change in inventory.	Low
2006	OGCR Sections 12.030, 12.056, 12.060, 17.010 (See also Directive 007)		(VME0004) Facility is missing for a prior month.	Low
2007	OGCR Sections 12.030, 12.056, 12.060, 17.010 (See also Directive 007)		(VME0005) Well is missing for current month.	Low
2008	OGCR Sections 12.030, 12.056, 12.060, 17.010 (See also Directive 007)		(VME0006) Well is missing for a prior month due to a change in well status.	Low
2009	OGCR Sections 12.030, 12.056, 12.060, 17.010 (See also Directive 007)		(VME0007) Well amendment is missing for a prior month due to VGWL reclassification.	Low
2010	OGCR Sections 12.030, 12.056, 12.060, 17.010 (See also Directive 007)		(VME0009) Well is missing for a prior month.	Low
2011	OGCR Sections 12.030, 12.056, 12.060, 17.010 (See also Directive 007)		(VME0010) Gas production must be reported with oil production.	Low
	OGCR Sections 12.030, 12.056, 12.060, 17.010 (See also Directive 007)		(VME0011) Total fractionated spec product cannot be greater than available mix product.	Low
2013	OGCR Sections 12.030, 12.056, 12.060, 17.010 (See also Directive 007)		(VME0012) Process volume cannot be negative for a spec product.	Low
2014	OGCR Sections 12.030, 12.056, 12.060, 17.010 (See also Directive 007)		(VME0013) Total processed volume cannot be negative for mix products.	Low
2015	OGCR Sections 12.030, 12.056, 12.060, 17.010 (See also Directive 007)		(VME0016) Gas metering difference is 20% or greater.	Low
2016	OGCR Sections 12.030, 12.056, 12.060, 17.010 (See also Directive 007)		(VME0017) Metering difference cannot exist for a meter station.	Low

	Regulatory Authority	Compliance Category	Noncompliant Event (Noncompliance with the requirement)	Risk Rating
2017	OGCR Sections 12.030, 12.056, 12.060, 17.010 (See also Directive 007)		(VME0018) Imbalance cannot exist for the product.	Low
2018	OGCR Sections 12.030, 12.056, 12.060, 17.010 (See also Directive 007)		(VME0021) Well is missing for a prior month due to an AER well status change from oil to gas or from gas to oil.	Low
2019	OGCR Sections 12.030, 12.056, 12.060, 17.010 (See also Directive 007)		(VME0023) Water metering difference is 20% or greater, and the total volume is 200 m3 or greater - facility balance.	Low
2020	OGCR Sections 12.030, 12.056, 12.060, 17.010 (See also Directive 007)		(VME0024) Water metering difference is 20% or greater, and the volume difference is greater than 50 m3 and less than 200 m3 - facility balance.	Low
2021	OGCR Sections 12.030, 12.056, 12.060, 17.010 (See also Directive 007)		(VME0025) Failure to report water volumes to the AER through the Petrinex by the 18th day of the month, or as specified by the AER.	Low
2022	OGCR Sections 12.030, 12.056, 12.060, 17.010 (See also Directive 007)		(VME0027) Suspended facility with a pending submission.	Low
2023	Directive 047		(WPE0001) Failure to report waste plant submission to the AER through the Petrinex by the 18th day of the month, or as specified by the AER.	Low
2024	Directive 047		(WPE0002) Amendment is missing for a prior month due to a change to a DISP/REC.	Low
2025	Directive 047		(WPE0003) Amendment is missing for a prior month due to change in inventory.	Low
	Directive 047		(WPE0004) Imbalance cannot exist for the product - oil.	Low
	Directive 047		(WPE0005) Inventory adjustment exceeds the 10% tolerance for oil.	Low
	Directive 047		(WPE0006) Imbalance cannot exist for the product (water).	Low
	Directive 047		(WPE0007) Imbalance cannot exist for the product (solids).	Low
	Directive 047		(WPE0008) Inventory adjustment exceeds the 10% tolerance for water.	Low
	Directive 047		(WPE0009) Inventory adjustment exceeds the 10% tolerance for solids.	Low
	Directive 047		(WPE0010) Imbalance cannot exist for the product (gas).	Low
2033	Directive 047		(WPE0011) A retroactive change to the facility has changed the facility operational status to "Active" and you have not submitted volumetric data for the production months that the facility is now active.	Low