

# Alberta's Oil Sands Projects and Upgraders

**DISCLAIMER:**  
This map excludes active projects with production of less than 1,000 barrels of bitumen in the last six months.

Locations are approximate and may not represent the full extent of project areas. Leased Oil Sands Area information is shown to the nearest quarter section, and therefore may appear to include minerals not owned by the Alberta Crown and/or Minerals Reserved From Disposition.

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**Construction:** On-site construction has commenced.  
**Approved:** Regulatory approvals required to operate have been received.  
**Application:** Application is being reviewed by the AER and/or AEP  
**Announced:** Operator has disclosed intent to construct project.

**SOURCE INFORMATION:**  
 Projects & Upgraders Information:  
 - Oil Sands Administration & Strategic Information System, Alberta Energy  
 - Integrated Application Registry, Alberta Energy Regulator  
 - Alberta Oil & Gas Industry - Quarterly Update (Winter 2016)  
 - Oil Sands Review Database - <http://navigator.oilsandsreview.com/listing>  
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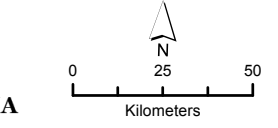
**Industrial Heartland:** Alberta's Industrial Heartland Association (AIHA)  
**Leased Oil Sands Area:** Alberta Energy (Feb 2016)  
**Oil Sands & Surface Mineable Areas:** Alberta Energy Regulator (AER)  
**Urban Development Sub-Region (UDSR):** Alberta Environment & Parks  
**Base Map Data Provided by the Government of Alberta** under the Alberta Open Government Licence.

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Transverse Mercator Projection (10TM)  
North American Datum 1983 (NAD83)

Date: Feb 2016  
 Author: Oil Sands Operations, Alberta Energy (MD)  
 Produced by: Resource Mapping & Analysis, Alberta Energy (JS)

- Project Status**
- Operating (131)
  - Construction (6)
  - Approved (18)
  - Application (23)
  - Announced (11)
- Upgrader Status**
- ◆ Operating (5)
  - ◆ Construction (1)
  - ◆ Approved (2)
  - ◆ Application (3)
- Other Information**
- Oil Sands Area
  - Surface Mineable Area
  - Industrial Heartland
  - Leased Oil Sands Area
  - Municipality
  - Urban Development Sub-Region
  - Hydrography
  - Major Highway



REF. #	OPERATOR - PROJECT NAME	PROJECT TYPE	STAGE	REF. #	OPERATOR - PROJECT NAME	PROJECT TYPE	STAGE
Upgraders - Athabasca				90	Suncor - Lewis	Thermal	Announced
Upgraders - Heartland				91	Baytex - Koch Reita Lake	Primary	Operating
Upgraders - Cold Lake				92	Baytex - Mann Lake East	Primary	Operating
Upgraders - Peace River				93	Baytex - Reita Lake (Baytex)	Primary	Operating
Upgraders - Peace River				94	Black Pearl Resources - John Lake	Primary	Operating
Upgraders - Peace River				95	CNRL - Ashmont	Primary	Operating
Upgraders - Peace River				96	CNRL - Beartrap	Primary	Operating
Upgraders - Peace River				97	CNRL - Beartrap East	Primary	Operating
Upgraders - Peace River				98	CNRL - CNRL Cold Lake	Primary	Operating
Upgraders - Peace River				99	CNRL - Derwent 11574	Primary	Operating
Upgraders - Peace River				100	CNRL - East Fishing Lake	Primary	Operating
Upgraders - Peace River				101	CNRL - Edward Lake	Primary	Operating
Upgraders - Peace River				102	CNRL - Elizabeth	Primary	Operating
Upgraders - Peace River				103	CNRL - Elk Point	Primary	Operating
Upgraders - Peace River				104	CNRL - Elk Point Project	Primary	Operating
Upgraders - Peace River				105	CNRL - Fire Tower	Primary	Operating
Upgraders - Peace River				106	CNRL - Fishing Lake	Primary	Operating
Upgraders - Peace River				107	CNRL - Frog Lake	Primary	Operating
Upgraders - Peace River				108	CNRL - Ft. Kent	Primary	Operating
Upgraders - Peace River				109	CNRL - John Lake	Primary	Operating
Upgraders - Peace River				110	CNRL - John Lake 11428	Primary	Operating
Upgraders - Peace River				111	CNRL - Lindbergh CA	Primary	Operating
Upgraders - Peace River				112	CNRL - Lindbergh North	Primary	Operating
Upgraders - Peace River				113	CNRL - Lindbergh Primary	Primary	Operating
Upgraders - Peace River				114	CNRL - Marwayne	Primary	Operating
Upgraders - Peace River				115	CNRL - Moose Hills	Primary	Operating
Upgraders - Peace River				116	CNRL - North Murphy Lindbergh	Primary	Operating
Upgraders - Peace River				117	CNRL - Reita Lake (CNRL)	Primary	Operating
Upgraders - Peace River				118	CNRL - Seibert Lake	Primary	Operating
Upgraders - Peace River				119	CNRL - South Lindbergh	Primary	Operating
Upgraders - Peace River				120	CNRL - West Marwayne	Primary	Operating
Upgraders - Peace River				121	Devon - East Tulabi John Lake	Primary	Operating
Upgraders - Peace River				122	Devon - Iron River	Primary	Operating
Upgraders - Peace River				123	Devon - Manotkan	Primary	Operating
Upgraders - Peace River				124	Devon - Mann North	Primary	Operating
Upgraders - Peace River				125	Devon - Tulabi/John Lake	Primary	Operating
Upgraders - Peace River				126	Gear Energy - Lindbergh Louis	Primary	Operating
Upgraders - Peace River				127	Gear Energy - Passage Elk	Primary	Operating
Upgraders - Peace River				128	Gear Energy - Swimming	Primary	Operating
Upgraders - Peace River				129	Harvest Operations - Frog Lake Oil Sands Project	Primary	Operating
Upgraders - Peace River				130	Harvest Operations - Lindbergh South	Primary	Operating
Upgraders - Peace River				131	Harvest Operations - Lindbergh 10259	Primary	Operating
Upgraders - Peace River				132	Husky - Lindbergh 10619	Primary	Operating
Upgraders - Peace River				133	Husky - Lindbergh 10812	Primary	Operating
Upgraders - Peace River				134	Husky - Lindbergh 11041	Primary	Operating
Upgraders - Peace River				135	Husky - Lindbergh 11205	Primary	Operating
Upgraders - Peace River				136	Husky - Lindbergh 9873,11822,11541	Primary	Operating
Upgraders - Peace River				137	Husky - Marwayne 10597	Primary	Operating
Upgraders - Peace River				138	Husky - Marwayne 11287	Primary	Operating
Upgraders - Peace River				139	Husky - Marwayne 7990	Primary	Operating
Upgraders - Peace River				140	Husky - Marwayne 8655	Primary	Operating
Upgraders - Peace River				141	Husky - Tucker Lake 9835	Primary	Operating
Upgraders - Peace River				142	Solara - Lindbergh 11429	Primary	Operating
Upgraders - Peace River				143	Twin Butte Energy - Frog Lake	Primary	Operating
Upgraders - Peace River				144	Twin Butte Energy - Frog Lake 11256	Primary	Operating
Upgraders - Peace River				145	Twin Butte Energy - Swimming 11191	Primary	Operating
Upgraders - Peace River				146	CNRL - Burnt Lake	Thermal	Operating
Upgraders - Peace River				147	CNRL - Elk Point CA	Thermal	Operating
Upgraders - Peace River				148	CNRL - Primrose	Thermal	Operating
Upgraders - Peace River				149	CNRL - Wolf Lake CA	Thermal	Operating
Upgraders - Peace River				150	Husky - Tucker	Thermal	Operating
Upgraders - Peace River				151	Imperial Oil - Cold Lake	Thermal	Operating
Upgraders - Peace River				152	OSUM - Orion EOR	Thermal	Operating
Upgraders - Peace River				153	Pengrowth - Lindbergh SAGD Pilot	Thermal	Operating
Upgraders - Peace River				154	Devon - Walleys	Thermal	Approved
Upgraders - Peace River				155	Husky - Caribou Lake	Thermal	Approved
Upgraders - Peace River				156	OSUM - Taiga	Thermal	Approved
Upgraders - Peace River				157	Rife Resources - Upper Mannville	Primary	Application
Upgraders - Peace River				158	Birchwood Resources - Sage Thermal Pilot	Thermal	Application
Upgraders - Peace River				159	Penn West Petroleum - Seal Harmon Valley South Thermal Pilot	Experimental	Operating
Upgraders - Peace River				160	Baytex - Cadotte Heavy Oil	Primary	Operating
Upgraders - Peace River				161	Baytex - Dawson 11327	Primary	Operating
Upgraders - Peace River				162	Baytex - Harmon Valley Bluesky	Primary	Operating
Upgraders - Peace River				163	Baytex - Reno	Primary	Operating
Upgraders - Peace River				164	Baytex - Tangent 11437	Primary	Operating
Upgraders - Peace River				165	Baytex - Walrus	Primary	Operating
Upgraders - Peace River				166	Koch - Seal South	Primary	Operating
Upgraders - Peace River				167	Murphy Oil - Murphy Cliffdale	Primary	Operating
Upgraders - Peace River				168	Murphy Oil - Murphy Seal	Primary	Operating
Upgraders - Peace River				169	Murphy Oil - Peace River	Primary	Operating
Upgraders - Peace River				170	Murphy Oil - Seal I	Primary	Operating
Upgraders - Peace River				171	Murphy Oil - Seal Cadotte	Primary	Operating
Upgraders - Peace River				172	Murphy Oil - Seal-Northern Cadotte Block	Primary	Operating
Upgraders - Peace River				173	Murphy Oil - Seal-Northern Cadotte Block II	Primary	Operating
Upgraders - Peace River				174	One Earth Oil & Gas - Chipmunk	Primary	Operating
Upgraders - Peace River				175	One Earth Oil & Gas - Chipmunk II	Primary	Operating
Upgraders - Peace River				176	Penn West Petroleum - Harmon Valley	Primary	Operating
Upgraders - Peace River				177	Penn West Petroleum - Seal Cadotte	Primary	Operating
Upgraders - Peace River				178	Penn West Petroleum - Seal Harmon Valley South	Primary	Operating
Upgraders - Peace River				179	Penn West Petroleum - Seal North	Primary	Operating
Upgraders - Peace River				180	Shell - Cliffdale	Primary	Operating
Upgraders - Peace River				181	Shell - Galloway	Primary	Operating
Upgraders - Peace River				182	Andora - Sawm Lake	Thermal	Operating
Upgraders - Peace River				183	Baytex - Cliffdale	Thermal	Operating
Upgraders - Peace River				184	Baytex - Harmon Valley - Pilot	Thermal	Operating
Upgraders - Peace River				185	Penn West Petroleum - Dawson Seal	Thermal	Operating
Upgraders - Peace River				186	Shell - Carmon Creek	Thermal	Operating
Upgraders - Peace River				187	Shell - Peace River	Thermal	Operating
Upgraders - Peace River				188	Penn West Petroleum - Seal Main East	Primary	Approved
Upgraders - Peace River				189	Northern Alberta Oil - Sawm Lake	Thermal	Approved

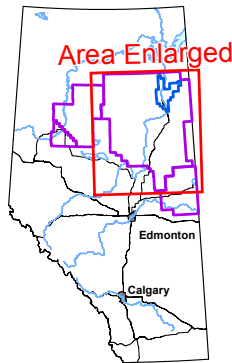
**Notes:**  
**Primary/EOR** - These projects utilize the natural energy available in the reservoirs (in some cases supplemented by non-thermal EOR processes) to produce bitumen.  
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**Mining** - These projects utilize open pit mining methods to remove bituminous ore, which is subsequently processed to recover bitumen.  
**Experimental** - These projects operate on a (non-commercial) pilot scale and use innovative methods to recover bitumen.



# Alberta's Oil Sands Projects and Upgraders

## -- Athabasca --

- Project Status**
- Operating (39)
  - Construction (6)
  - Approved (13)
  - Application (21)
  - Announced (11)
- Upgrader Status**
- ◆ Operating (4)
  - ◆ Construction (0)
  - ◆ Approved (1)
  - ◆ Application (3)
- Other Information**
- Oil Sands Area
  - Surface Mineable Area
  - Leased Oil Sands Area
  - Municipality
  - Urban Development Sub-Region
  - Hydrography
  - Major Highway



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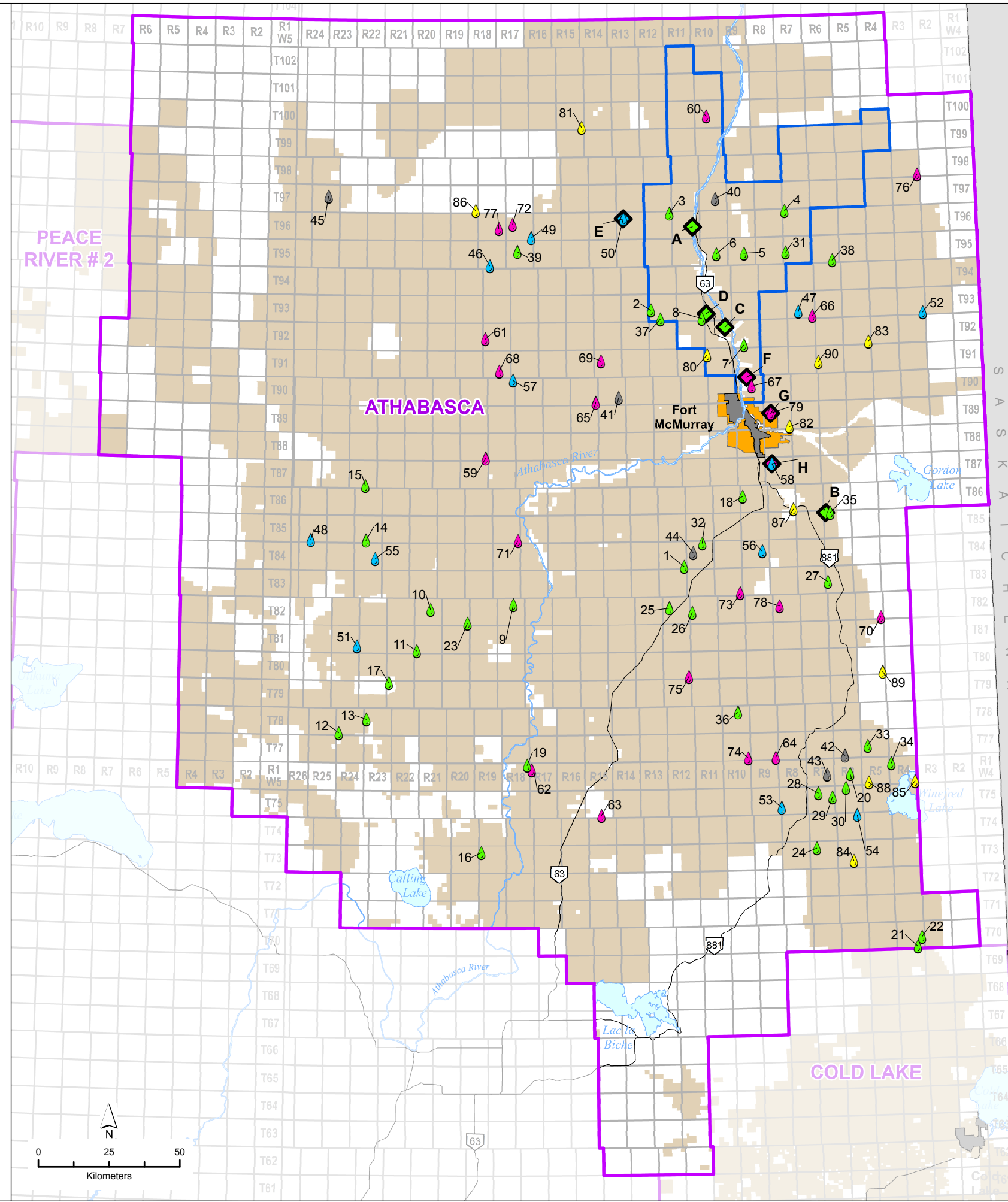
**SOURCE INFORMATION:**  
 Projects & Upgraders Information:  
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REF. #	OPERATOR - PROJECT NAME	PROJECT TYPE	STAGE
<b>Upgraders - Athabasca</b>			
A	CNRL - Horizon	Upgrader	Operating
B	Nexen - Long Lake	Upgrader	Operating
C	Suncor - Base and Millennium	Upgrader	Operating
D	Synchrude - Mildred Lake	Upgrader	Operating
E	Value Creation - Terre de Grace Pilot	Upgrader	Approved
F	Ivanhoe Energy - Tamarack	Upgrader	Application
G	Value Creation - Advanced TriStar	Upgrader	Application
H	Value Creation - Tristar Pilot	Upgrader	Application
<b>Athabasca</b>			
1	N-Solv Corporation - Suncor Dover Lease Pilot	Experimental	Operating
2	Suncor - Dover Demonstration	Experimental	Operating
3	CNRL - Horizon	Mining	Operating
4	Imperial Oil - Kearl	Mining	Operating
5	Shell - Jackpine Mine	Mining	Operating
6	Shell - Muskeg River Mine	Mining	Operating
7	Suncor - Suncor Oil Sands	Mining	Operating
8	Synchrude - Synchrude Mine	Mining	Operating
9	Cenovus - Pelican Lake III	Primary	Operating
10	CNRL - Brintnell	Primary	Operating
11	CNRL - South Brintnell	Primary	Operating
12	Husky - McMullen Primary Heavy Oil	Primary	Operating
13	CNRL - South Wabasca	Primary	Operating
14	CNRL - Wabasca North	Primary	Operating
15	CNRL - Woodenhouse	Primary	Operating
16	Husky - Amadou	Primary	Operating
17	Legacy O&G - Brintnell 9774	Primary	Operating
18	Athabasca Oil Sands - Hangingstone	Thermal	Operating
19	Black Pearl Resources - Blackrod SAGD Pilot	Thermal	Operating
20	Cenovus - Christina Lake Thermal	Thermal	Operating
21	Cenovus - Clearwater Thermal Project	Thermal	Operating
22	Cenovus - Foster Creek	Thermal	Operating
23	Cenovus - Pelican Lake Grand Rapids	Thermal	Operating
24	CNRL - Kirby Commercial Project	Thermal	Operating
25	Connacher - Great Divide	Thermal	Operating
26	Connacher - Algar	Thermal	Operating
27	Conoco Phillips - Surmont	Thermal	Operating
28	Devon - Jackfish 2 SAGD Thermal Project	Thermal	Operating
29	Devon - Jackfish 3 SAGD Project	Thermal	Operating
30	Devon - Jackfish SAGD Thermal Project	Thermal	Operating
31	Husky - Sunrise Thermal	Thermal	Operating
32	JACOS - Hangingstone	Thermal	Operating
33	MEG Energy - Christina Lake Regional	Thermal	Operating
34	MEG Energy - Christina Lake Regional Project Phase 3 SE	Thermal	Operating
35	Nexen - Long Lake	Thermal	Operating
36	Statoil - Leismer Demonstration Project	Thermal	Operating
37	Suncor - MacKay River	Thermal	Operating
38	Suncor - Firebag	Thermal	Operating
39	Sunshine Oilsands - West Ells	Thermal	Operating
40	Suncor - Fort Hills Oil Sands Project	Mining	Construction
41	Brion Energy - MacKay River Commercial Project	Thermal	Construction
42	Cenovus - Narrows Lake	Thermal	Construction
43	Harvest Operations - BlackGold	Thermal	Construction
44	JACOS - Hangingstone Expansion Project	Thermal	Construction
45	Sunshine Oilsands - Harper	Thermal	Construction
46	Athabasca Oil Sands - Dover West Carbonates (Leduc)	Experimental	Approved
47	Oak Point Energy - Lewis SAGD Pilot	Experimental	Approved
48	Renergy Petroleum - Muskwa Pilot	Experimental	Approved
49	Brion Energy - Dover Commercial Project	Thermal	Approved
50	BP P.L.C. - Terre de Grace	Thermal	Approved
51	Cavalier Energy Inc - Hoole	Thermal	Approved
52	Cenovus - Telephone Lake Borealis	Thermal	Approved
53	CNRL - Kirby Expansion (North)	Thermal	Approved
54	Devon - Pike	Thermal	Approved
55	Koch - Muskwa	Thermal	Approved
56	Suncor - Meadow Creek	Thermal	Approved
57	Sunshine Oilsands - Thickwood	Thermal	Approved
58	Value Creation - Tristar Pilot	Thermal	Approved
59	Husky - Saleski Carbonate Pilot	Experimental	Application
60	Teck Resources - Frontier	Mining	Application
61	Athabasca Oil Sands - Dover West Sands & Clastics	Thermal	Application
62	Black Pearl Resources - Blackrod Commercial	Thermal	Application
63	CNRL - Grouse	Thermal	Application
64	Grizzly Oil Sands - May River	Thermal	Application
65	Grizzly Oil Sands - Thickwood	Thermal	Application
66	Imperial Oil - Aspen	Thermal	Application
67	Ivanhoe Energy - Tamarack	Thermal	Application
68	Koch - Dunkirk	Thermal	Application
69	Marathon Oil Corporation - Birchwood	Thermal	Application
70	MEG Energy - Surmont	Thermal	Application
71	OSUM - Sepiko Kesik	Thermal	Application
72	Prosper Petroleum Ltd. - Rigel	Thermal	Application
73	PTT Exploration and Production - Mariana-Hangingstone	Thermal	Application
74	PTT Exploration and Production - Mariana-South Leismer	Thermal	Application
75	PTT Exploration and Production - Mariana-Thornbury	Thermal	Application
76	SilverWillow Energy - Audet Pilot	Thermal	Application
77	Sunshine Oilsands - Legend Lake	Thermal	Application
78	Surmont Energy - Wildwood	Thermal	Application
79	Value Creation - Advanced TriStar	Thermal	Application
80	Suncor - Voyageur South	Mining	Announced
81	Athabasca Oil Sands - Birch	Thermal	Announced
82	Cenovus - East McMurray	Thermal	Announced
83	Cenovus - Steepbank	Thermal	Announced
84	Cenovus - West Kirby	Thermal	Announced
85	Cenovus - Winefred Lake	Thermal	Announced
86	CNRL - Birch Mountain	Thermal	Announced
87	CNRL - Gregoire Lake	Thermal	Announced
88	Devon - Jackfish East	Thermal	Announced
89	Suncor - Chard	Thermal	Announced
90	Suncor - Lewis	Thermal	Announced

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# Alberta's Oil Sands Projects and Upgraders

## -- Cold Lake / Industrial Heartland --

### Project Status

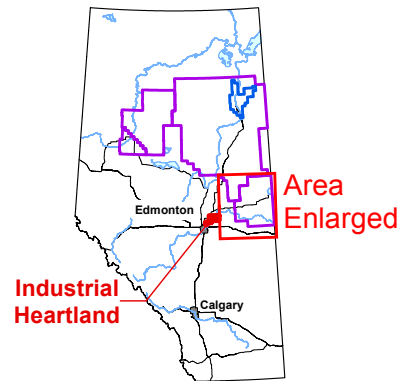
- Operating (63)
- Construction (0)
- Approved (3)
- Application (2)
- Announced (0)

### Upgrader Status

- ◆ Operating (1)
- ◆ Construction (1)
- ◆ Approved (1)
- ◆ Application (0)

### Other Information

- Oil Sands
- Industrial Heartland
- Leased Oil Sands
- Municipality
- ~ Hydrography
- Major Highway



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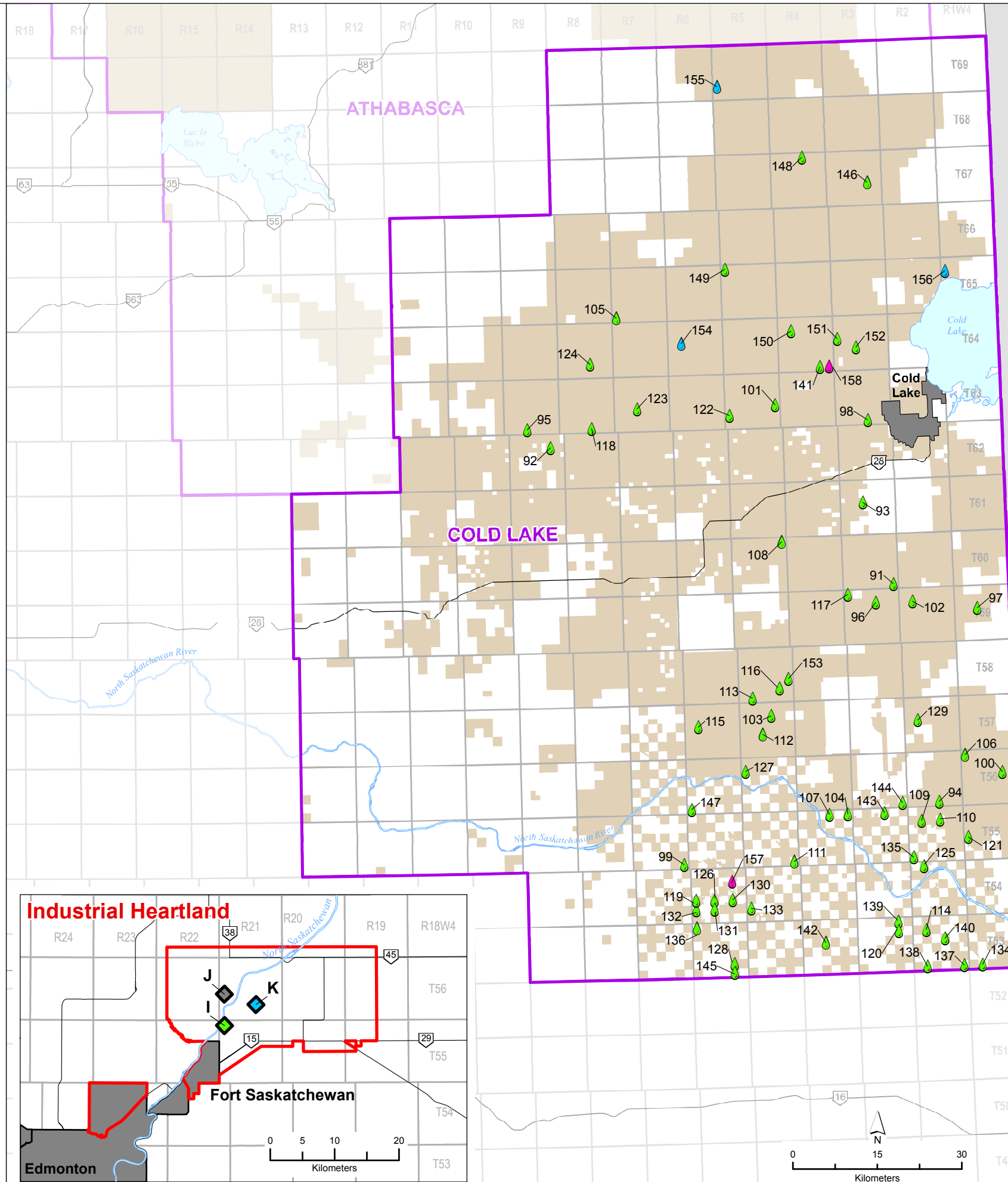
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Date: February 2016  
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REF. #	OPERATOR - PROJECT NAME	PROJECT TYPE	STAGE
<b>Upgraders - Heartland</b>			
I	Shell - Scotford	Upgrader	Operating
J	North West Upgrading - Redwater	Upgrader	Construction
K	Value Creation - Heartland	Upgrader	Approved
<b>Cold Lake</b>			
91	Baytex - Koch Reita Lake	Primary	Operating
92	Baytex - Mann Lake East	Primary	Operating
93	Baytex - Reita Lake (Baytex)	Primary	Operating
94	Black Pearl Resources - John Lake	Primary	Operating
95	CNRL - Ashmont	Primary	Operating
96	CNRL - Beartrap	Primary	Operating
97	CNRL - Beartrap East	Primary	Operating
98	CNRL - CNRL Cold Lake	Primary	Operating
99	CNRL - Derwent 11574	Primary	Operating
100	CNRL - East Fishing Lake	Primary	Operating
101	CNRL - Edward Lake	Primary	Operating
102	CNRL - Elizabeth	Primary	Operating
103	CNRL - Elk Point	Primary	Operating
104	CNRL - Elk Point Project	Primary	Operating
105	CNRL - Fire Tower	Primary	Operating
106	CNRL - Fishing Lake	Primary	Operating
107	CNRL - Frog Lake	Primary	Operating
108	CNRL - Ft. Kent	Primary	Operating
109	CNRL - John Lake	Primary	Operating
110	CNRL - John Lake 11428	Primary	Operating
111	CNRL - Lindbergh CA	Primary	Operating
112	CNRL - Lindbergh North	Primary	Operating
113	CNRL - Lindbergh Primary	Primary	Operating
114	CNRL - Marwayne	Primary	Operating
115	CNRL - Moose Hills	Primary	Operating
116	CNRL - North Murphy Lindbergh	Primary	Operating
117	CNRL - Reita Lake (CNRL)	Primary	Operating
118	CNRL - Seibert Lake	Primary	Operating
119	CNRL - South Lindbergh	Primary	Operating
120	CNRL - West Marwayne	Primary	Operating
121	Devon - East Tulabi John Lake	Primary	Operating
122	Devon - Iron River	Primary	Operating
123	Devon - Manatokan	Primary	Operating
124	Devon - Mann North	Primary	Operating
125	Devon - Tulabi/John Lake	Primary	Operating
126	Gear Energy - Lindbergh Louis	Primary	Operating
127	Gear Energy - Passage Elk	Primary	Operating
128	Gear Energy - Swimming	Primary	Operating
129	Harvest Operations - Frog Lake Oil Sands Project	Primary	Operating
130	Harvest Operations - Lindbergh South	Primary	Operating
131	Husky - Lindbergh 10259	Primary	Operating
132	Husky - Lindbergh 10619	Primary	Operating
133	Husky - Lindbergh 10812	Primary	Operating
134	Husky - Lindbergh 11041	Primary	Operating
135	Husky - Lindbergh 11205	Primary	Operating
136	Husky - Lindbergh 9873,11822,11541	Primary	Operating
137	Husky - Marwayne 10597	Primary	Operating
138	Husky - Marwayne 11287	Primary	Operating
139	Husky - Marwayne 7990	Primary	Operating
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141	Husky - Tucker Lake 9835	Primary	Operating
142	Solara - Lindbergh 11429	Primary	Operating
143	Twin Butte Energy - Frog Lake	Primary	Operating
144	Twin Butte Energy - Frog Lake 11256	Primary	Operating
145	Twin Butte Energy - Swimming 11191	Primary	Operating
146	CNRL - Burnt Lake	Thermal	Operating
147	CNRL - Elk Point CA	Thermal	Operating
148	CNRL - Primrose	Thermal	Operating
149	CNRL - Wolf Lake CA	Thermal	Operating
150	Husky - Tucker	Thermal	Operating
151	Imperial Oil - Cold Lake	Thermal	Operating
152	OSUM - Orion EOR	Thermal	Operating
153	Pengrowth - Lindbergh SAGD Pilot	Thermal	Operating
154	Devon - Walleye	Thermal	Approved
155	Husky - Caribou Lake	Thermal	Approved
156	OSUM - Taiga	Thermal	Approved
157	Rife Resources - Upper Mannville	Primary	Application
158	Birchwood Resources - Sage Thermal Pilot	Thermal	Application

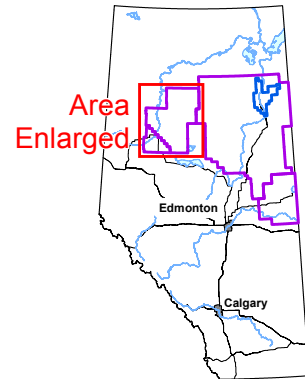
Notes:  
**Primary/EOR** - These projects utilize the natural energy available in the reservoirs (in some cases supplemented by non-thermal EOR processes) to produce bitumen.  
**Thermal** - These projects apply thermal energy (usually steam) in situ to produce bitumen.  
**Mining** - These projects utilize open pit mining methods to remove bituminous ore, which is subsequently processed to recover bitumen.  
**Experimental** - These projects operate on a (non-commercial) pilot scale and use innovative methods to recover bitumen.



# Alberta's Oil Sands Projects and Upgraders

## -- Peace River --

- Project Status**
- Operating (29)
  - Construction (0)
  - Approved (2)
  - Application (0)
  - Announced (0)
- Other**
- Oil Sands
  - Leased Oil Sands
  - Municipality
  - ~ Hydrography
  - Major Highway
- Upgrader Status**
- ◆ Operating (0)
  - ◆ Construction (0)
  - ◆ Approved (0)
  - ◆ Application (0)



**DISCLAIMER:**  
This map excludes active projects with production of less than 1,000 barrels of bitumen in the last six months.

Locations are approximate and may not represent the full extent of project areas. Leased Oil Sands Area information is shown to the nearest quarter section, and therefore may appear to include minerals not owned by the Alberta Crown and/or Minerals Reserved From Disposition.

The data represented was obtained from the source information listed and internal records as well as public announcements made at the time of publication and are subject to change; therefore the Government of Alberta assumes no responsibility for discrepancies at time of use.

**PROJECT STATUS DEFINITION:**  
**Operating:** Producing Bitumen &/or Oil Sands Product as of last period.  
**Construction:** On-site construction has commenced.  
**Approved:** Regulatory approvals required to operate have been received.  
**Application:** Application is being reviewed by the AER and/or AEP  
**Announced:** Operator has disclosed intent to construct project.

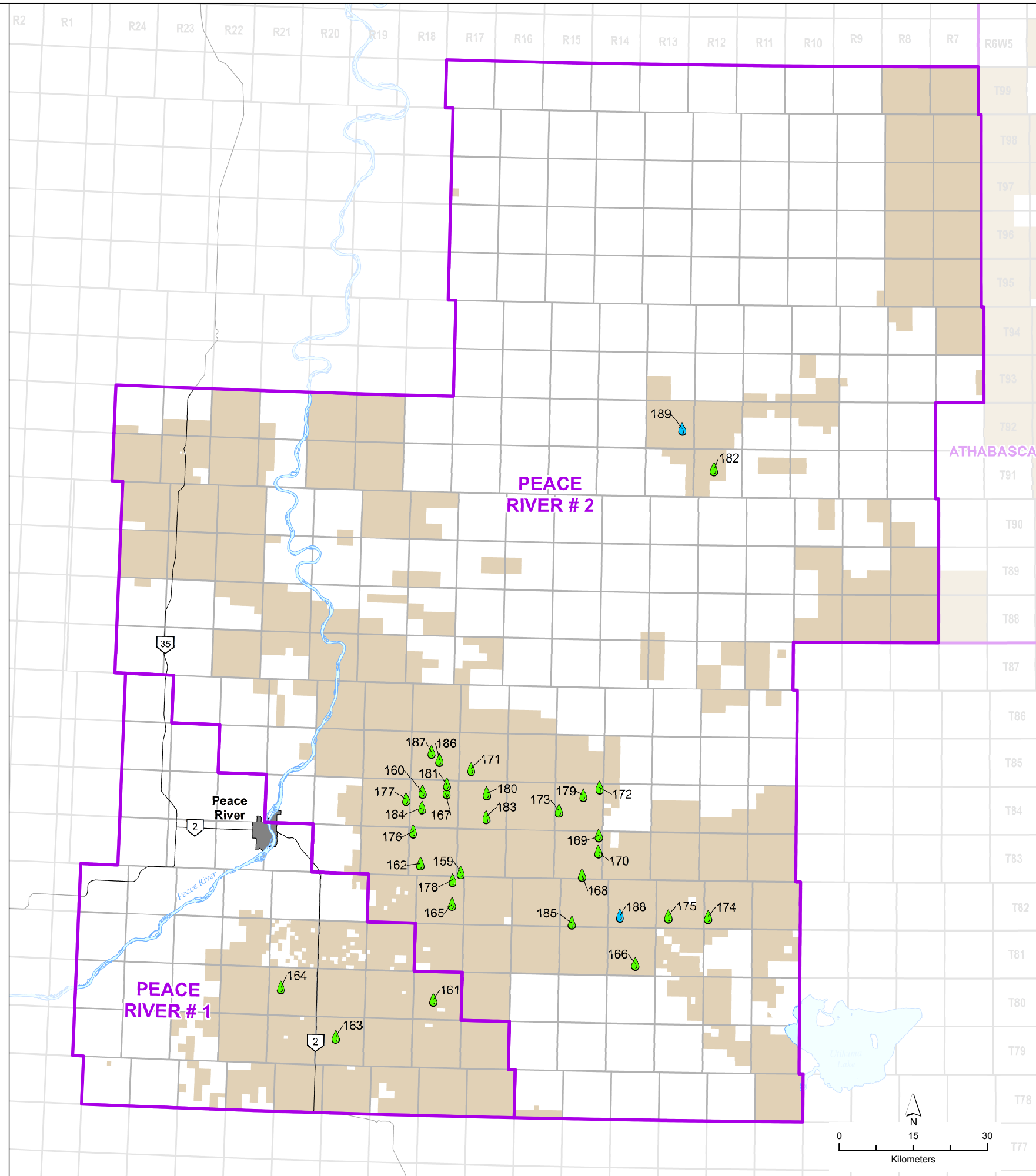
**SOURCE INFORMATION:**  
 Projects & Upgraders Information:  
 - Oil Sands Administration & Strategic Information System, Alberta Energy  
 - Integrated Application Registry, Alberta Energy Regulator  
 - Alberta Oil & Gas Industry - Quarterly Update (Winter 2016)  
 - Oilsands Review Database - <http://navigator.oilsandsreview.com/listing>  
 - CanOils - <http://www.can oils.com/>

Industrial Heartland: Alberta's Industrial Heartland Association (AIHA)  
 Leased Oil Sands Area: Alberta Energy (Feb 2016)  
 Oil Sands & Surface Mineable Areas: Alberta Energy Regulator (AER)  
 Urban Development Sub-Region (UDSR): Alberta Environment & Parks  
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Transverse Mercator Projection (10TM)  
 North American Datum 1983 (NAD83)

Date: February 2016  
 Author: Oil Sands Operations, Alberta Energy (MD)  
 Produced by: Resource Mapping & Analysis, Alberta Energy (JS)



REF. #	OPERATOR - PROJECT NAME	PROJECT TYPE	STAGE
Peace River			
159	Penn West Petroleum - Seal Harmon Valley South Thermal Pilot	Experimental	Operating
160	Baytex - Cadotte Heavy Oil	Primary	Operating
161	Baytex - Dawson 11327	Primary	Operating
162	Baytex - Harmon Valley Bluesky	Primary	Operating
163	Baytex - Reno	Primary	Operating
164	Baytex - Tangent 11437	Primary	Operating
165	Baytex - Walrus	Primary	Operating
166	Koch - Seal South	Primary	Operating
167	Murphy Oil - Murphy Cliffdale	Primary	Operating
168	Murphy Oil - Murphy Seal	Primary	Operating
169	Murphy Oil - Peace River	Primary	Operating
170	Murphy Oil - Seal I	Primary	Operating
171	Murphy Oil - Seal Cadotte	Primary	Operating
172	Murphy Oil - Seal-Northern Cadotte Block	Primary	Operating
173	Murphy Oil - Seal-Northern Cadotte Block II	Primary	Operating
174	One Earth Oil & Gas - Chipmunk	Primary	Operating
175	One Earth Oil & Gas - Chipmunk II	Primary	Operating
176	Penn West Petroleum - Harmon Valley	Primary	Operating
177	Penn West Petroleum - Seal Cadotte	Primary	Operating
178	Penn West Petroleum - Seal Harmon Valley South	Primary	Operating
179	Penn West Petroleum - Seal North	Primary	Operating
180	Shell - Cliffdale	Primary	Operating
181	Shell - Galloway	Primary	Operating
182	Andora - Sawn Lake	Thermal	Operating
183	Baytex - Cliffdale	Thermal	Operating
184	Baytex - Harmon Valley - Pilot	Thermal	Operating
185	Penn West Petroleum - Dawson Seal	Thermal	Operating
186	Shell - Carmon Creek	Thermal	Operating
187	Shell - Peace River	Thermal	Operating
188	Penn West Petroleum - Seal Main East	Primary	Approved
189	Northern Alberta Oil - Sawn Lake	Thermal	Approved

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