

Mineable Oil Sands Well Data File

Layout Document

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Alberta Energy Regulator
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1 Introduction

1.1 Overview

Basic interpreted and non-interpreted data for non-confidential wells located in and around the Athabasca Oil Sands Surface Mineable Area. Information in the file includes well location, drill date, company, elevation, depth, formation tops, weight percent bitumen by interval (normally 0.3 m), percentage of shale, porosity, water content, well confidence code.

1.2 Problem Resolution

If you encounter problems with this product, please email informationrequest@aer.ca. Please categorize the problem as one or more of the following:

- Problems relating to data contents
- Other problems

1.3 Available Format

This product is available as a CSV as an individual product. Products are zipped prior to being uploaded to FTP site.

1.4 Confidentiality

All files and programs exclude confidential data. Data are made available once they have been released from confidential status

1.5 Disclaimer

The AER

- Makes no representation, warranties, or guarantees, expressed or implied, for the fitness of the data file with respect to intended use;
- Accepts no responsibility for any inaccuracies, errors, or omissions in the data file;
- Accepts no responsibility for any costs incurred by a company to convert, install, or improve the data file; and
- Makes no guarantee to the continuing availability of any data or the consistency of the format of transferred data.

2 File Specification

Availability	Annually
Sort Sequence	Ascending order of BHID (Bottom hole identifier)
File Structure	<p>The Mineable Oil Sands Well Data is located in three different files. The three files are:</p> <p>header(year).csv Header Information</p> <p>tops(year).csv Formation Tops</p> <p>details(year).csv Detailed Interpreted/Non-Interpreted Data</p> <p>The file structure is comma delimited. The common field in each file is the BHID (drill hole identifier). The format of the BHID is based on the CPA-ID where applicable; otherwise it is the operator drillhole number. An explanation of the CPA-ID is as follows:</p> <p>AA/15-20-091-10W4/0 LE/LSD-SC-TWP-RG-M/ES</p> <p>LE - Location exception code is used to distinguish between holes drilled in the same LSD and the order they were drilled. Each hole would have a different LE (e.g., AA, AB, AC, etc.).</p> <p>LSD - Legal Subdivision</p> <p>SC - Section</p> <p>TWP - Township</p> <p>RG - Range</p> <p>M - Meridian</p> <p>ES - Event sequence code indicates the chronological sequence of a significant drilling and/or completion of a drill hole, which yields a separate and unique set of data. Most Oil Sands drill holes will have an Event Sequence Code of 0.</p>
Sort Sequence	Ascending order of BHID.

File Description Basic interpreted and non-interpreted data for approximately 15 400 non-confidential wells located in and around the Athabasca Oil Sands Surface Mineable Area. The information is subject to updates and changes on an ongoing basis. Updates to the files will be made annually each February. The use of this data is strictly at the discretion of the user and the AER accepts no liability for the information contained in the files.

3 Fields and Descriptions

3.1 File Name: Header File (header(year).csv)

Record Type: Comma Delimited Fields, Order Listed Below

Number of Records: 15,532

Field	Description
BHID	Unique drill hole identifier
CPA-ID	Unique Well Identifier
X83	Drillhole Collar – UTM Easting – NAD 83 Datum
Y83	Drillhole Collar – UTM Northing – NAD 83 Datum
LAT	Drillhole Collar – Latitude – NAD 83 Datum
LONG	Drillhole Collar – Longitude – NAD 83 Datum
ELEV	Drillhole Collar - Elevation
DATE	Finished Drilling Date
BHNAME	Operator, Property, Hole Type, Modified CPA-ID
TYPE	Data Type e.g. Logs/Core/Strip/No Data
CC	Drillhole Confidence Code (-1 to 6; see appendix 1)
TD	Total Depth

3.2 File Name: Formation Tops File (tops(year).csv)

Record Type: Comma Delimited Fields, Order Listed Below

Number of Records: 15,698

Field	Description
BHID	Unique drill hole identifier
CPA-ID	Unique well identifier
BODDEPTH	Depth to base of Drift, formation code 10
WABDEPTH	Depth to top of Wabiskaw Formation, formation code 3060
MCMDEPTH	Depth to top of McMurray Formation, formation code 3280
BHLDEPTH	Depth to top of Beaver Hill Lake Formation, formation code 7440
TD	Total Depth

See Appendix 2 for Legend

3.3 File Name: Detailed Data File (details(year).csv)
 Record Type: Comma Delimited Fields, Order Listed Below
 Number of Records: 3,635,792

Field	Description
BHID	Unique drill hole identifier
CPA-ID	Unique Well Identifier
X83	Interval Easting – UTM – NAD 83 Datum
Y83	Interval Northing – UTM – NAD 83 Datum
Z	Midpoint Elevation of Interval
FROM	Depth to Start of Interval
TO	Depth to End of Interval
LENGTH	Length of Interval (To – FROM)
CORGR	Weight % Bitumen – Core Analysis
CALEGR	Weight % Bitumen – Geophysical Log Calculated or Grade Range Estimates (Strip Logs)
GRADE	CORGR with CALEGR merged to fill missing intervals
SHALE	Geophysical Log Calculated % Shale content
POROSITY	Geophysical Log Calculated Porosity
WATER	Geophysical Log Calculated % Water Content
FINES44	Particles with a range of smaller than 44µm in oil sands sample.

NOTE: Intervals have been subdivided so that CORGR intervals match with CALEGR intervals for merging data into the GRADE field.

Appendix 1 Drillhole Confidence Codes

Code	Description
—	Confidence not assigned
-1	Very Poor or No Data, Strip Logs, Not For Use
0	No Core Data or Short Holes
1	Core Recovery less than 40% over McMurray Formation
2	Core Recovery 40% to 50% over McMurray Formation
3	Core Recovery 50% to 60% over McMurray Formation
4	Core Recovery 60% to 75% over McMurray Formation
5	Core Recovery 75% to 90% over McMurray Formation
6	Core Recovery 90% to 100% over McMurray Formation

Appendix 2 Formation Codes

CODE	FORMATION	CODE	FORMATION	CODE	FORMATION	CODE	FORMATION
1	None Identified	2560	Colony	5020	Schooler Creek	7200	Leduc
3	Infill No Tops	2620	Grand Rapids	5060	Baldonnel	7280	Duvernay
10	Base Of Drift	2640	Spirit River	5080	Charlie Lake	7320	Cooking Lake
1060	Edmonton	2660	Notikewin	5100	Boundary	7400	Majeau Lake
1240	Bearpaw	2680	McLaren	5160	Halfway	7430	Muskwa
1260	Belly River	2700	Waseca	5200	Doig	7440	Beaverhill Lake
1270	Judith River	2715	Falher	5240	Montney	7480	Moberly
1300	Oldman	2760	Sparky	5560	Belloy	7500	Christina
1320	Foremost	2780	Wainwright	6040	Stoddart	7520	Calumet
1340	Basal Belly River	2800	Clearwater FM	6050	Taylor Flat	7540	Firebag
1400	Lea Park	2810	Clearwater SS	6060	Kiskatinaw	7560	Swan Hills
1420	Pakowki	2860	General Pet.	6080	Golata	7580	Slave Point
1480	Wapiabi	2880	Rex	6100	Rundle	7620	Fort Vermilion
1580	Milk River	2900	Wilrich	6120	Debolt	7700	Elk Point
1600	Colorado	2940	Lloydminster	6280	Livingstone	7720	Watt Mountain
1640	Medicine Hat	3000	Glauconitic	6300	Turner Valley	7780	Gilwood
1660	Bad Heart	3020	Cummings	6380	Elkton	7810	Sulphur Point
1700	Cardium	3040	BlueSky	6400	Shunda	7820	Muskeg
1760	Cardium SS	3060	Wabiskaw	6420	Pekisko	7850	Zama
1800	Blackstone	3100	Lower Mannville	6440	Banff	7860	Prairie Evaporite
1820	Kaskapau	3120	Ostracod Zone	6460	Bakken	7880	Keg River
1840	Jumping Pound	3160	Ostracod SS	6480	Exshaw	7890	Keg River SS
1860	2nd White Specs	3170	Bantry Shale	6580	Wabamun	7900	Methy
1900	Doe Creek	3220	Dina	6600	Big Valley	7920	Winnipegosis
1920	Dunvegan	3260	Gething	6660	Stettler	7930	Lower Keg River
1960	Shaftsbury	3280	McMurray	6680	Crossfield	7940	Chinchaga
2060	Base Fish Scales	3300	Moulton	6700	Winterburn	7960	Contact Rapids
2120	Bow Island FM	3320	Sunburst	6740	Trout River	8000	Cold Lake
2130	Bow Island SS	3360	Ellerslie	6780	Graminia	8020	Ernestina
2140	Viking FM	3440	Cutbank	6800	Blueridge	8040	Lotsberg
2180	Viking SS	3460	Taber	6820	Kakisa	8060	Basal Red Beds
2200	Provost	3480	Cadomin	6860	Calmar	9000	Cambrian
2220	Hamilton Lake	3500	Detrital	6940	Arcs	9030	Lynx
2280	Peace River	4020	Kootenay	6960	Nisku	9210	Pika
2300	Paddy	4080	Nikanassin	7020	Jean Marie	9220	Eldon
2320	Cadotte	4140	Fernie	7040	Woodbend	9300	Stephen
2360	Joli Fou	4200	Swift	7080	Camrose	9400	Cathedral
2380	Harmon	4240	Rierdon	7100	Ireton	9460	Mount Whyte
2420	Basal Colorado	4280	Sawtooth	7120	Fort Simpson	9760	Granite Wash
2440	Blairmore	4320	Rock Creek	7160	Grosmont	9800	Pre-Cambrian
2480	Mannville	4400	Poker Chip	7170	Lower Ireton	9999	Total Depth
2500	Upper Mannville	4440	Nordeg				