



00241613

SUMMARY

WELL NAME: Prenalta Corporation
Mathewson #32-12 - 9-55C

LOCATION: SW $\frac{1}{4}$ NE $\frac{1}{4}$ Section 12, Township 9 North
Range 55 West, Logan County, Colorado

TYPE: Field Stepout

ELEVATION: 4355 Feet - Ground
4363 Feet - Kelly Bushing

TOTAL DEPTH: 5475 Feet - Driller *Deepened to 5525' to run casing.
5479 Feet - Schlumberger

GEOLOGIST: Achille Vitali, Jr.
6670 West 28th Avenue
Denver, Colorado 80214

CONTRACTOR: Garvey Drilling Company
Great Bend, Kansas
Rig #14 - Wilson Giant
Pump #1 - Emsco D-300
Tool Pusher - Bill Wells

COMMENCED: Spudded - December 2, 1970, 12:30 P.M.

COMPLETED: Finished Drilling December 6, 1970, 4:20 P.M.
Logged - December 6, 1970
Ran Production Casing - December 8, 1970

CASING RECORD: Surface Casing: Landed 8 5/8" 24# casing at
131 Feet K.B. Cemented with 95 sacks of
60/40 Poz-mix plus 2% gel and 3% calcium
chloride.
Production Casing: Landed 4 1/2" casing at
5523 Feet K.B. Cemented with 150 sacks of
1-1 Poz-mix and regular cement plus 2%
calcium chloride and 10% gel.

LOGGING RECORD

Samples:
Bagged - 130' - T.D.
Described - 5310' - T.D.
Drilling Time - Geolograph
Mechanical Logs
Induction-Electrical Log 131' - 5478'
B.H.C. Formation Density Log 5150' - 5478'

FORMATION TOPS

<u>Formation and age</u>	<u>Sample Tops</u>	<u>Log Tops</u>	<u>Datum</u>
<u>Tertiary</u>			
White River Formation	----	Surface	4355
<u>Cretaceous</u>			
Pierre Shale	----	180?	4183
Niobrara Shale	----	4470	- 107
'D' Sand	5291	5295	- 932
Skull Creek Shale	5328	5334	- 971
'J'-1 Sand	5405	5403	-1040
'J'-2 Sand	5418	5424	-1061
'J'-3 Sand	5435	5440	-1077

DRILL STEM TESTSD.S.T. #1 - 5420 - 33 - 'J'-2 Sand

Halliburton Testers - Straddle Test. Tool open with strong blow increasing steadily. Gas to surface in 18 minutes. Maximum flow 56.8 MCF in 28 minutes - decreasing in surges to end of test. Recovered 1960 feet of fluid consisting of: 1360 feet of green-brown gassy oil (39 degrees @ 68 degrees F.); 360 feet of muddy oil and heavily oil and gas cut mud; 240 feet of gas cut water.

PRESSURESTIME

IHP	2912#	
IFP	66/145#	10 minutes
ISIP	1360#	30 minutes
FP	132/514#	60 minutes
FSIP	1360#	70 minutes
FHP	2912#	
Temperature	170 degrees F.	

BIT RECORD

<u>No.</u>	<u>Size</u>	<u>Make</u>	<u>Type</u>	<u>Depth Out</u>	<u>Footage</u>	<u>Hours</u>
1.	7 7/8	H.T.C.	OSC3A-J	2903	2771	13 3/4
2.	"	"	OSC3-J	4768	1865	17
3.	"	"	CIC-J	5313	545	12 3/4
4.	"	"	CIC-J	5474	161	11

DEVIATION RECORD

All deviation surveys were one degree or less.

CHRONOLOGICAL RECORD

December 1 - 2	Moving in and rigging up.
December 2	Spudded at 12:30 p.m. Drilled surface hole and set surface pipe.
December 3 - 6	Drilling ahead. Reached T.D. at 4:20 p.m.
December 6	Ran logs.
December 7	Ran D.S.T. #1.
December 8	Ran production casing.

REMARKS

Hydrocarbon Show Evaluation:

A drill stem test of the main objective of this prospect (J-2 sand) resulted in the recovery of a substantial quantity of oil of excellent quality with good pressures. Completion in this relatively thin, 8 foot bench of 11 - 12% porosity, sand should result in at least a marginally commercial oil well.

All other sands penetrated are believed to be tight and/or water bearing.

Operations:

Daily operations were conducted efficiently and in good spirits.

A. Vitali, Jr.
Geologist

PRENATAL CORPORATION

Cottonwood Field

Mathewson #32-12 9-55C

Sec. 12-T9N-R55W

Logan County, Colorado

SAMPLE DESCRIPTION

<u>FROM</u>	<u>TO</u>	
5000'	5100'	Shale, dark gray, soft, fissile, silty in part, occasional finely micaceous, plus Siltstone, light to medium gray, some very finely sandy, calcareous, firm, some shaly and softer, plus trace of Shale, medium gray brown with/tan-brown fossil specks, very calcareous, plus occasional trace of Calcite, light gray, plus trace of Inoceramus.
5100'	20'	Limestone, medium tan gray, grainy looking, silty and shaly and very finely micaceous, very fossiliferous in part, firm, plus abundant Inoceramus, plus a trace of Pyrite, plus Shale, as above and Siltstone as above.
20'	40'	Shale, medium dark gray, silty, micaceous in part, soft, plus some grading to shaly Siltstone, medium gray, soft, plus trace of Siltstone, light to medium gray, very finely sandy, slightly glauconitic, firm, calcareous, trace of Pyrite, plus trace of Inoceramus, plus Bentonite, white to light gray.
5140'	5230'	Shale, as above, plus siltstone, as above, plus occasional trace of Limestone, tan, silty, plus trace of Pyrite and Inoceramus.
5230'	80'	Shale, as above, plus some Siltstone, as above, plus occasional trace of Limestone, tan to medium gray, dirty in part, plus very heavy trace of Inoceramus and other fossil trash, occasional trace of Pyrite.
80'	90'	Shale, as above, plus increase in Siltstone, light to medium gray, very finely sandy, occasionally glauconitic, some firm to hard, slightly calcareous, plus rest as above.
5290'	5300'	Shale and Siltstone, as above, plus heavy trace Sandstone, white to very light gray, very fine grain, slightly Calcareous, angular, fairly clean looking, with some clay matrix, friable to firm, occasionally slightly glauconitic and pyritic, looks tight with questionable poor porosity and permeability. No Show.

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Sample Description

<u>FROM</u>	<u>TO</u>	<u>TOP'D' SAND 5291</u>
5300' - 10'		Sandstone, white to very light gray, fine grain, with some very fine to fine grain, angular to sub-angular, some sparkly looking (crystal overgrowths?), friable to firm, some hard, slightly calcareous in part, some clean looking, some with clay matrix, tight to good porosity and permeability. 30% yellow fluorescent, light yellow crushed cut, trace of Pyrite plus trace Bentonite, white.
5310' - 20'		Sandstone, as above, show as above.
20' - 30'		Sandstone, as above, plus Sandstone, medium gray, very fine grain to silt, blocky, hard, angular, calcareous, looks thin bedded, tight, No Show, plus Shale, dark gray to black, fissile, flaky.
30' - 50'		Shale, dark gray to black, fissile, flaky, trace of Pyrite, plus heavy trace Bentonite, white, plus heavy trace Sandstone, white to very light gray, fine grain, angular, sparkly looking, clean looking, friable. to firm, fair to good porosity and permeability, occasional trace solid yellow fluorescent, crushed light yellow cut, plus trace Inoceramus and fossil fragments.
50' - 80'		Shale, as above, plus some Siltstone, light to medium gray with some medium gray brown, finely sandy in part, friable to hard calcareous in part, occasional finely micaceous, plus light to heavy, trace of Dolostone, brown, blocky, hard, plus trace Pyrite.
80' - 90'		Shale, as above, very heavy trace Bentonite, white plus heavy traces of Dolostone, trace Inoceramus.
90' - 5400'		Shale, as above, plus trace Inoceramus and trace of Dolostone, as above.
5400' - 10'		Shale, as above, plus heavy trace Siltstone, medium to dark gray, in part very finely sandy, hard, in part shaly and firm, occasionally micaceous, calcareous, plus heavy trace Inoceramus, trace Pyrite.

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FROM TO

'J' SAND 5405

- 5410' - 20' Sandstone, light to medium gray, fine grain, occasional scattering of medium grain, hard, to quartzitic, slightly salt and pepper, angular, very tight, plus some medium gray with brown cast, firm to very hard, micaceous, dolomitic, tight, plus some white, very fine grain, friable to firm, angular, some white clay matrix, tight with some poor to fair porosity and permeability, very finely pyritic in part, looks thin bedded in part, No Show. plus trace Siltstone, as above.
- 20' - 30' Sandstone, white to very light gray, very fine grain, occasionally some very fine to fine grain, friable to very hard, angular, light to heavy clay matrix, looks tight to very tight, with occasionally some poor porosity and permeability, some questionable spotty light gold fluorescent, no cut, trace Pyrite, plus trace Bentonite, white, bright yellow fluorescent, some of which has light yellow cut, plus Shale, medium gray, soft, Bentonite.
- 30' - 40' Predominantly Shale, medium to dark gray, soft to fissile, occasionally micaceous, plus traces Sandstone, as above, plus two pieces sandstone, buff, fine grain sub-angular, clay filled, friable, fair porosity and permeability, No Show, plus abundant Bentonite, white, some of which has bright yellow fluorescent and some of which will cut.
- 5440' - 50' Shale. as above, plus increase in Sandstone white to light gray, very fine grain, with some very fine to fine grain, firm to hard, slightly calcareous in part, looks thin bedded, mostly tight with some questionable poor to fair porosity and permeability, No Show, plus trace Pyrite, plus Bentonite, white, some with bright yellow fluorescent, plus good cut.

'J'-3 SAND 5435

- 50' - 56' Sandstone, white, fine grain, with some fine to medium grain, sub-angular to sub-round, very friable to friable, (some loose medium grain with occasionally medium to coarse grain, sub-round to round), clean looking, fair to good porosity and permeability, no fluorescent or cut, looks wet.
- 56' - 60' Sandstone, as above abundant Pyrite.
- 60' - 75' Shale, dark gray to black, soft, fissile, heavy traces Inoceramus, plus traces Calcite, white, plus trace Bentonite, plus trace Sandstone, as above.

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Sample Description

FROM TO

Circulation Samples - 1/2 and 1 hour

Shale, as above, rest as above.