

Para et al Cameron F-75  
F-75



RUNNING HORSE  
RESOURCES INC.

# RUNNING HORSE RESOURCES INC.



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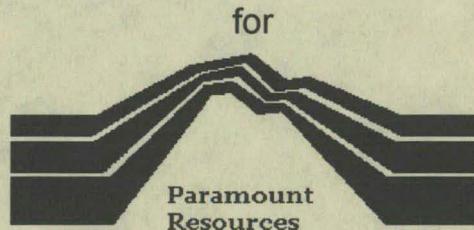
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## Geological Report

on

## Para et al Cameron F-75 F-75

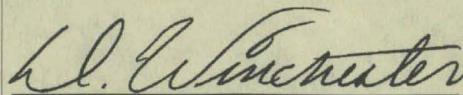
Well Reached Total Depth of 1463 metres  
on  
January 19, 2003 @ 22:38 hours.



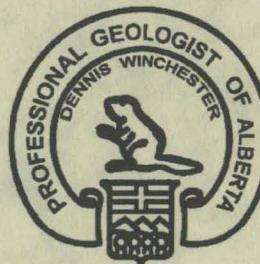
Prepared for: **Mr. Llew Williams**  
**Paramount Resources Ltd.**

Wellsite Geologist: **Brad Powell, B.Sc.**  
**Running Horse Resources Inc.**

Approved by:



**Dennis Winchester, P.Geol.**  
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## Executive Summary

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**Para et al Cameron F-75** is a vertical well spudded by Precision Drilling Rig #117 on January 10, 2003 at 00:00 hours. Surface hole is 311mm drilled to 436.1m with 219.1 mm casing landed at 436.1m. The 200mm main hole terminated in the **Muskeg Formation** at 1463m on January 19, 2003 @ 22:38.

This well was drilled primarily to produce oil from the **Sulphur Point Dolomite** and secondarily to evaluate the **Slave Point** for possible gas. Samples were taken from 1300m to TD at 1463m. Two core's were cut of the **Sulphur Point Dolomite**. Core #1 from 1413-1419m. Core #2 from 1419-1432m. Triple Induction, SP, Neutron Density, Compensated Sonic, Gamma Ray and XY Caliper logs were run from TD to surface casing.

The **Slave Point** was picked in samples at 1349m and was confirmed on logs at 1347.5m. It is approximately 41.5m thick, underlain by the the F4 Marker. It can be described as cream to light brown to brown, mottled, predominantly cryptocrystalline to microcrystalline, occasional very fine crystalline, mudstone to occasionally wackestone. It was chalky in part and had scattered pellets providing some matrix support. It had argillaceous laminations and common bituminous partings. It is generally dense and tight, with local poor pinpoint and vug porosity, assumed chalky/earthy porosity, and traces of poor intercrystalline porosity. Density logs confirm streaks of 9% porosity. This was co-related to drilling breaks and with gas detector responses. There were gas peaks of up to 400 units over a baseline of 50 units in this zone. Samples showed pale yellow fluorescence, with weak green watery cuts. Analysis of the induction logs showed intervals of 100-300ohms on the deep induction, associated with the porous intervals. Poor curve separation suggests poor permeability. **The Slave Point does not appear to be of economic value at this location.**

The **Sulphur Point dolomite** is a microcrystalline to coarse crystalline dolostone, occurring as breccia at the top of the formation. The dolomite was picked in core at 1414.5m and 1414.0m on logs. Observation of cores saw common euhedral dolomite crystals and rhombs growing in fractures and common good to excellent interconnected vug porosity. Good intercrystalline sucrosic porosity was also seen throughout. Density logs show average porosity of 9-12% with intervals of porosity up to 24% on a dolomite scale. The samples were light brown to brown and saw some good dark brown oil staining, as well as massive even oil staining in the core. The core had a strong sweet oil odor. The samples and core had bright yellow fluorescence with instant thick milky yellowish cuts. Induction log analysis showed an average of about 30-40ohms on the deep induction, with good curve separation. Readings of 20ohms at the top of the interval to 100ohms at the bottom of the interval. **The Sulphur Point dolomite appears to have good potential for oil production.**

Based on sample evaluation, gas detector responses, and analysis of geophysical logs, **Para et al Cameron F-75** was cased for production.

## Well Data Summary

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<b>OPERATOR</b>	Paramount Resources Ltd.
<b>WELL NAME</b>	Para et al Cameron F-75
<b>LOCATION</b>	Unit F Section 75 Grid Area: Lat 60° 10' N Long 117° 15' W
<b>UWI</b>	300F756010117150
<b>POOL</b>	
<b>FIELD</b>	
<b>PROVINCE</b>	NorthWest Territories
<b>LICENCE NUMBER</b>	1971
<b>CLASSIFICATION</b>	Production
<b>A.F.E. NUMBER</b>	02N31148
<b>SURFACE COORDINATES</b>	Latitude: 60° 04' 29.364" North Longitude: 117° 29' 11.066" West
<b>ELEVATIONS</b>	KB: 778.83m GL: 774.35m
<b>TOTAL DEPTH</b>	Driller: 1463.0m (-684.17m SubSea) Logger: 1459.0m (-680.17m SubSea)
<b>DRILLING CONTRACTOR</b>	Precision Drilling Rig #117
<b>ENGINEER</b>	Brian Neigum 403-997-5286
<b>GEOLOGIST</b>	Brad Powell 403-861-0838
<b>SPUD DATE</b>	January 10, 2003 @ 00:00
<b>COMPLETED DRILLING</b>	January 19, 2003 @ 22:38

# Well Data Summary

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**HOLE SIZE** Surface hole: 311mm  
Main hole: 200mm

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**LOGGING** DIL-SP, CNL-FDC, Sonic, Microrolog, from TD to surface casing.

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**DST's** none

**CORE** Core #1: 1413-1419m 100% recovery  
Core #2: 1419-1432m 100% recovery

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**SAMPLES** Operator: 1 set vials (@ 5m) over interval: 1300m - TD  
NEB: 2 sets vials (@ 5m) over interval: 1300m - TD  
1 set bags (@ 5m) over interval: 1300m - TD  
1 set geochem jars (@ 5m) over interval: 1300m - TD

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**DIRECTIONS** From High Level, Alberta, go north on Highway 35. 1.3km south of Indian Cabins, turn west onto main road and go 32km, staying right at all Y forks. Turn right up big hill, drive 10.5km. Turn right to location.

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## PROBLEMS

**On Surface Hole:** Lost circulation in Wabamun formation, starting at 568m. Had to drill ahead blind into Fort Simpson shale at 722m and then plug back with "nowblock cement". The cement was drilled out and then normal drilling ahead.

**On Main Hole:** While coring Core #1, the core jammed off at 1419m. Had to run in and cut Core #2 to recover the full Slave Point dolomite.

Logging Run #2 (BCS / GR / CAL) bridged off twice in a badly washed out section, first at 817m and then 806m, after a washout trip. It was decided not to try again to log the sonic.

# Logging Summary

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**Date:** January 20, 2003

**Logging Company:** Computalog      **Engineer:** C. Williamson / J. Peterson

**Mud Properties:** WT: 1100 kg/m<sup>3</sup>    Visc: 72 s/L    WL: 10.0    pH: 9.5

**Hole Size:** 200mm

**Surface Casing:** 219.1mm, 35.7kg/m, set @ 436.1m

**Depths:** Driller: 1463.0m    Strap: 1463.0m    Logger: 1459m (4m fill)

**Logging Times:** First Alerted: 00:30 January 18, 2003  
Time Required: 04:00 January 20, 2003 (8.0hr final notice)  
Arrived: 03:30 January 20, 2003

**Hole Condition:** Good

**Circulations:** 1hr after TD then 1.5hr after wiper trip

**Wiper Trips:** 20 stands

## LOGGING SEQUENCE

**Run #1:** STI / MRT / SpeD / CNS / GR / CAL  
**Interval:** TD to surface casing (with MRT from TD to top of Slave Point)

**Run #2:** BCS / GR / CAL  
**Interval:** TD to surface casing

**REMARKS:** No problems getting logging tools to bottom for Run #1. On bottom with Run #1 @ 12:45 January 20, 2003. Upon tagging bottom, the tools became stuck. After working the tools they became free, and Run #1 was completed. Log Run #2 (BCS / GR / CAL) bridged off at 817m, in a badly washed out section. A washout trip was done. Log Run #2 bridged off again, this time at 806m, after the washout trip. It was decided not to try again to log the sonic.

# Bit Record & Casing Summary

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## Bit Record

Bit #	Make	Type	Size	In (m)	Out (m)	Meters (m)	Hours	ROP (m/hr)	IADC T - B - G
1A	Varel	L-127	311mm	0	170	170	14.00	12.14	4 - 4 - IN
2A	Varel	L-127	311mm	170	409	239	14.00	17.07	4 - 4 - IN
3A	HW	XGG	311mm	409	437	28	1.75	16.00	2 - 2 - IN
1	Varel	MKS 56 PDC	200mm	437	722	285	11.25	25.33	98%
1RR	Varel	MKS 56 PDC	200mm	532	1413	881	39.75	22.16	98%
2	Hughes	BHC406 (coring)	199 x 102mm	1413	1432	19	2.25	8.44	IN
1RR	Varel	MKS 56 PDC	200mm	1432	1463	31	4.50	6.89	IN

## Casing Summary

Type	Csg. Size	Hole Size	Landed	Total Jts	Remarks
Surf	219.1mm	311mm	436.1m	34	34 joints of 219.1mm 35.7kg/m, J-55, 8RD ST&C new casing ran. Cemented with BJ 34t of 0:1:0 Class G + 2% CaCl2. Approximately 7m3 of good returns, float OK, plug down @ 06:44 Jan 12, 2003.
Prod	114.1mm	200mm	1463m	135	117 joints of 139.7mm 20.83kg/m, J-55, ST\$C new casing ran. Cemented with BJ.

## Deviation Surveys

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Depth	Inc
31	1.25
49	0.50
105	1.00
133	0.50
171	1.00
199	0.75
228	1.00
256	1.00
285	1.00
313	1.00
342	2.50
370	3.00
389	1.50
430	0.75
534	0.75
649	0.75
553	0.50
601	0.75
647	0.50
695	0.25
788	0.25
891	0.75
998	0.25
1094	0.50
1195	0.75
1290	0.25

## Daily Drilling Summary

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<u>Date</u>	<u>Depth</u>	<u>Progress</u>	<u>Operations</u>
* note that operations are as reported the previous 24hrs to 08:00 on the date shown			
Jan 8	0	0	Load out rig at Barrhead and start to travel to location.
Jan 9	0	0	Move rig to location from High Level. Rig up rig and start to nipple up diverter.
Jan 10	86	86	Weld on diverter flange, nipple up. Function test system. Drill rat hole. Prespud safety meeting. Make up BHA with Bit #1A. Spud @ 00:00 January 10, 2003. Drill 311mm surface hole with surveys and required rig service from 0m to 86m.
Jan 11	361	275	Drill 311mm surface hole with surveys and required rig service from 86m to 170m. Circulate bottoms up and POOH for bit trip. Make up new BHA with Bit #2A and RIH. Drill ahead from 170m to 361m
Jan 12	436	75	Drill 311mm surface hole from 361m to 409m. Circulate bottoms up and POOH for bit trip. Make up new BHA with Bit #3A and RIH. Drill ahead from 409m to 436m. Wiper trip and circulate and condition hole to prepare for casing. Run 34 joints 219.1mm surface casing. Circulate casing and condition mud for cementing. Cement with BJ. Plug down @ 06:44 January 13, 2003.
Jan 13	477	41	WOC. Weld on bowl and pressure test. Nipple up BOPs and pressure test. Test manifold valves, HCR valves, kill line valves, pipe rams, hydril, inside BOPs, stabbing valve, and Kelley cock. Slip and cut line. Make up BHA with Bit #1 and RIH. Hold BOP drill and check accumulator. Drill out shoe, and do leak test gradient. Circulate and condition mud, and drill ahead to 477m.

## Daily Drilling Summary

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Jan 14	648	171	Hold BOP drill and safety meeting. Drill ahead 200mm main hole with surveys and required rig service to 573m and lost circulation, starting at 568m. Mix LCM pill twice, drill ahead to 610m. Switch back to water and lost circulation again. Mix straight mud and drill ahead blind to 648.5m. After discussion with BJ, it was determined to plug back hole with "nowblock cement" after drilling ahead to 720m (into Fort Simpson shale).
Jan 15	722	74	Drill ahead blind 200mm main hole from 648.5m to 722m. POOH to run LCM plugs. RIH with open ended pipe to run plugs. Run 4 plugs and WOC. RIH and feel top plug at 545.8m. Circulate hole and POOH. Make up new BHA and RIH with Bit #1RR. Drill cement from 545.8m to 658m.
Jan 16	658	0	Drill out LCM plug to 722m. Clean cement out of water drilling fluid with centrifuges.
Jan 17	1160	502	Drill 200mm main hole with surveys and required rig service to 1160m.
Jan 18	1413	253	Drill ahead 200mm main hole with surveys and required rig services from 1160m to core point at 1413m, with control drilling from 1405-1413m. Circulate up bottom sample. Wiper trip, then back to bottom and circulate to condition hole for coring. Strap out of hole with flow checks to core.
Jan 19	1432	19	Make up coring BHA. RIH to 1413m. Circulate hole clean. Cut Core #1 with Baker from 1413-1419m. Core jammed off. POOH. Lay down coring BHA. Recover core. Make up coring BHA. RIH to 1419m. Circulate hole clean. Cut Core #2 from 1419-1432m. POOH.
Jan 20	1463	31	Lay down coring BHA. Recover Core #2. RIH, wash and ream to bottom. Drill ahead 200mm main hole with surveys and required rig service to 1463m. Well reached TD @ 22:38 on January 19, 2003. Circulate up bottom hole

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## Daily Drilling Summary

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			sample, 20 stand wiper trip. Circulate 1.5 hours and POOH to log. Rig in Computalog. RIH with logging Run #1.
Jan 21	1463	0	Upon tagging bottom, log Run #1 tools became stuck. Work tools free and log Run #1 without problems. Rig out tools from log Run #1. RIH with log Run #2. Bridged off at 817m. Rig out tools. RIH and ream and wash to bottom. Circulate, work pipe. POOH. Rig up Computalog for logging Run #2. RIH with tools for Run #2 and bridged off again in a badly washed out section. POOH with tools, did not run BCS log.
Jan 22	1463	0	RIH to condition hole to run production casing. Lay down drill string. Run 117 joints 139.7mm production casing. Circulate casing. Cement with BJ. WOC and start to tear out rig. Rig release 23:59 January 22, 2003.

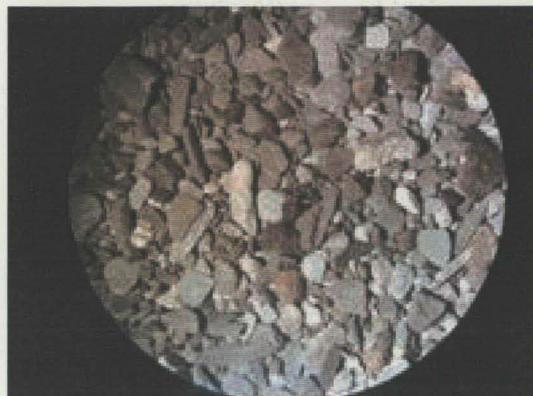
## Formation Tops

**Kelly Bushing Elevation:** 778.83m

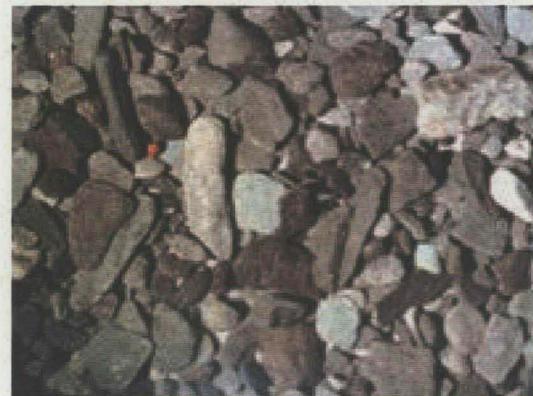
Formation	Sample (m)	Logger (m)	Elevation (m)
Wabamun		548.5	+230.33
Fort Simpson		720.0	+ 58.83
Beaverhill Lake	1291.0	1291.0	-512.17
Slave Point *	1349.0	1347.5	-568.67
F4		1389.0	-610.17
Watt Mountain	1397.0	1396.5	-617.67
Sulphur Point LS	1404.5	1404.0	-625.17
Sulphur Point DOL **	1414.0	1413.5	-634.67
Muskeg	1429.8	1428.0	-649.17
T.D.	1463.0	1459.0	-680.17

*\*\*Primary Zones of Interest*

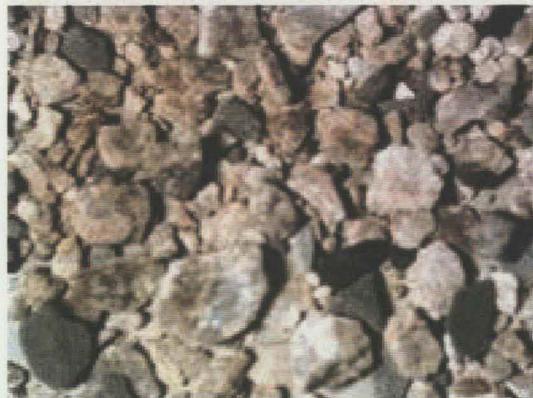
*\* Secondary Zones of Interest*



1315m, Beaverhill Lake 10X



1315m, Beaverhill Lake 30X



1365m, Slave Point 10X



1365m, Slave Point 30X



1410m, Watt Mountain 10X



1410m, Watt Mountain 30X



**Core 1, Box 1**



**Core 1, Box 2**



**Core 1, Box 3**



**Core 1, Box 4**



**Core 1, Close-up on patchy vuggy porosity (oil stained)**



**Core 1, Box 5**



**Core 1, Oil weeping**



**Jamm off in Core catcher**



**Core #2, 1419 to 1432m**

**Cut 13m, Recovered 13m**

**Large Vuggy Porosity**



## Sample Descriptions

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1295-1305 SHALE 100%, 50% gray brown to medium brown, micromicaceous in part, blocky, firm, dolomitic in part, silty in part, trace calcite veining, 50% light greenish gray to light green, dull to slightly micromicaceous, platy to blocky, fissile to firm, smooth and waxy in part, calcareous, scattered pyrite nodules

1305-1320 SHALE 100%, 40% gray brown to medium brown, micromicaceous in part, blocky, firm, dolomitic in part, silty in part, trace calcite veining, 60% light greenish gray to light green, dull to slightly micromicaceous, platy to blocky, fissile to firm, smooth and waxy in part, calcareous, scattered pyrite nodules, trace LIMESTONE stringers, off white to light gray, micritic, mudstone, lumpy to blocky, dense, tight, locally pyritized, no shows

MUSKWA @ 1324m

1320-1325 SHALE 100%, 30% gray brown to medium brown, micromicaceous in part, blocky, firm, dolomitic in part, silty in part, trace calcite veining, 60% light greenish gray to light green, dull to slightly micromicaceous, platy to blocky, fissile to firm, smooth and waxy in part, calcareous, scattered pyrite nodules, 10% dark brown to black, bituminous appearance, lumpy to blocky, firm, trace LIMESTONE stringers, off white to light gray, micritic, mudstone, lumpy to blocky, dense, tight, locally pyritized, no shows

1325-1330 SHALE 20%, dark brown to black, bituminous appearance, lumpy to blocky, firm, LIMESTONE 20%, off white to light gray, micritic, mudstone, lumpy to blocky, dense, tight, locally pyritized, no shows, SHALE 60%, brown and green, as above (cavings?)

1330-1335 LIMESTONE 30%, off white to light gray, micritic, mudstone, lumpy to blocky, dense, tight, locally pyritized, no shows, SHALE, 30%, dark brown to black, bituminous appearance, lumpy to blocky, firm, SHALE, 40%, brown and green, as above

1335-1340 LIMESTONE 40%, off white to light gray, buff to occasional light brown, micritic to occasionally very fine crystalline, mudstone, lumpy to blocky, dense, tight, locally pyritized and coarse pyrite nodules, trace bioclastic debris, no shows, SHALE 40%, light greenish gray to light green, dull to slightly micromicaceous, platy to blocky, fissile to firm, smooth and waxy in part, calcareous, scattered pyrite nodules, 20% dark brown to black, bituminous appearance, trace limy streaks, blocky, firm

## Sample Descriptions

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1340-1349 LIMESTONE, 50% as above, SHALE 40% light greenish gray to light green, as above, SHALE 10%, dark brown to black, as above, ROP falling off, becoming limier downsection

### SLAVE POINT @ 1349.0m

1349-1350 LIMESTONE 50%, cream to light brown, rare brown, cryptocrystalline to microcrystalline, mudstone, in part chalky, argillaceous in part, lumpy to blocky, scattered pyrite nodules and locally disseminated pyrite crystals, trace fossil debris including Brachiopods, dense, tight, questionable show, SHALE 50% (cavings), light greenish gray to light green, dull to slightly micromicaceous, platy to blocky, fissile to firm, smooth and waxy in part, calcareous, scattered pyrite nodules

1350-1355 LIMESTONE 100%, cream to light brown, rare brown, cryptocrystalline to microcrystalline, mudstone, in part chalky, argillaceous in part, lumpy to blocky, scattered pyrite nodules and locally disseminated pyrite crystals, trace fossil debris including Brachiopods, trace bituminous partings, dense, generally tight with trace local poor pinpoint porosity, no shows

1355-1360 LIMESTONE 100%, cream to light brown to brown, mottled, predominantly cryptocrystalline to microcrystalline, occasional very fine crystalline, mudstone to occasionally wackestone, in part chalky, argillaceous in part, lumpy to blocky, scattered pyrite nodules and locally disseminated pyrite crystals, trace bituminous partings, dense, massive, generally tight with trace local poor pinpoint and vug porosity, assumed chalky/earthy porosity, pale yellow fluorescence, weak green watery cut

1360-1375 LIMESTONE 100%, cream to light brown to brown, mottled, predominantly cryptocrystalline to microcrystalline, occasional very fine crystalline, mudstone to occasionally wackestone, scattered pellets, in part chalky, argillaceous laminations, lumpy to blocky, scattered pyrite nodules and locally disseminated pyrite crystals, common bituminous partings, dense, massive, generally local poor pinpoint and vug porosity, assumed chalky/earthy porosity, trace poor intercrystalline porosity, pale yellow fluorescence, very weak green watery cut

1375-1385 LIMESTONE 80%, cream to brown, very mottled, mudstone to wackestone, microcrystalline to very fine crystalline, argillaceous, lumpy to blocky, dolomitic in part, tight, yellow fluorescence, weak faint green cut; DOLOMITE 20%, medium brown, cryptocrystalline to microcrystalline, blocky, firm, tight, questionable show, minor ANHYDRITE, off white to tan, cryptocrystalline to microcrystalline, pearly lustre in part,

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## Sample Descriptions

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calcareous in part, soft

1385-1395 LIMESTONE 100%, cream to light brown, occasional light gray tan, becoming lighter than as above, predominantly microcrystalline mudstone to finely crystalline wackestone, argillaceous in part, silty, scattered anhydrite and dolomitic streaks, lumpy to blocky, streaks of poor pinpoint and inter crystalline porosity, no shows, minor anhydrite, pearly to opaque, off white to tan, firm, tight, minor SHALE partings, gray to green, platy, fissile

WATT MOUNTAIN @ 1397.0m

1395-1400 LIMESTONE 50%, as above, SHALE 50%, slightly greenish gray to mint green, occasionally bright blue green, waxy, soft, slightly calcareous in part common disseminated pyrite and very coarse cubic pyrite crystals and crystalline clusters, scattered rounded coarse to granule sized frosted varicolored free quartz grained

1400-1405 SHALE 100%, slightly greenish gray to mint green, occasionally bright blue green, waxy, soft, slightly calcareous in part, common disseminated pyrite and very coarse cubic pyrite crystals and crystalline clusters, scattered rounded coarse to granule sized frosted varicolored free quartz grained, trace LIMESTONE below

SULPHUR POINT LIMESTONE @ 1404.5m

1405-1413 LIMESTONE 70%, predominantly off white to tan, light brown to dark brown, occasionally gray, cryptocrystalline to medium crystalline, mudstone to wackestone with argillaceous lime matrix, chalky, lumpy to blocky, tight with streaks of poor pinpoint porosity, assumed earthy porosity, slight oily odor, scattered dull gold fluorescence, no cut, SHALE 30%, as above (cavings)

1413-1432 DESCRIPTIONS ARE FROM OBSERVATION OF CORE AND SAMPLES

Core #1 1413-1419m

1413-1414.5 LIMESTONE breccia, buff to tan rock fragments with light brown to brown lime mud matrix, cryptocrystalline to microcrystalline, collapse breccia?, very worked, fracturing throughout, predominantly mudstone, in part chalky, with trace dark grey shale partings, bottom 0.3m has very abundant finely disseminated pyrite, trace spotty bleeding oil and oil staining, very dense, firm, tight

## Sample Descriptions

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1414.5-1416.0 DOLOMITE, in part breccia, tan fragments with brown matrix, microcrystalline to coarse crystalline, argillaceous in part, generally dense and firm, common fracturing with calcite infill or fine to coarse clear euhedral dolomite rhombs, scattered good vugular porosity with vugs upper to 1cm with very coarse rhombs to 0.5cm in open pore throats, tight to fair intercrystalline porosity, bleeding oil and common oil staining with common yellow fluorescence,

1416.0-1417.8 DOLOMITE, tan to light brown with brown mud matrix, mottled, becoming very shaly downsection, microcrystalline to medium upper crystalline, streaks of good to excellent pinpoint to vugular porosity, fair to good in part sucrosic intercrystalline porosity, common oil staining and fluorescence, watery to milky greenish yellow cut, SHALE dark grey, well indurated, interbedded at bottom of section

1417.8-1419.0 DOLOMITE, brown and dark brown banded, predominantly microcrystalline to fine crystalline, grading to medium upper crystalline, excellent vertical fracturing with calcite, subhedral and euhedral dolomite crystals along fracture surfaces, microsucrosic texture in part, bottom 0.3m has good to excellent vuggy porosity with open pores and rhombs, fair to good intercrystalline porosity with bitumen coatings, massive dark oil staining and even deep yellow fluorescence, milky thick yellowish white cut, dark shale partings

Core #2 1419-1432m

1419-1423.2 DOLOMITE, brown and dark brown banded, even dark brown oil staining, microcrystalline to coarse crystalline, breccia at top of section, crumbly, sucrosic, good to excellent vug porosity with interconnected vugs upper to 2 to 3cm, "sponge" appearance, common vertical fracturing with calcite infill, subhedral and euhedral dolomite crystals and clear rhombs upper to 1.5cm along fracture surfaces and vug linings, open pore throats, dark shale partings, fair to excellent intercrystalline porosity, massive dark oil staining and even deep yellow fluorescence, strong oil odor .

1423.2-1424.4 DOLOMITE, tan to dark brown, microcrystalline to very fine crystalline, common oil staining, no vugs, very common calcite veining, black partings, dense, tight

1424.4-1427.4 DOLOMITE, light brown to very dark brown oil stained, greyish brown, becoming more grey downsection, in part banded, microcrystalline to fine crystalline, euhedral crystals, sucrosic texture, good intercrystalline porosity, streaks of good to excellent vug porosity with open vugs to 2 to 3mm, clear rhomb vug linings, possible poor fracture porosity, gritty feel, firm, black shale partings, even oil staining, yellow

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## Sample Descriptions

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fluorescence, milky yellowish cut

1427.6-1427.8 SHALE, dark grey to greenish grey

1427.8-1429.2 DOLOMITE, becoming more grey, greyish brown to dark brown, banded, microcrystalline to very fine lower crystalline, blocky, tight, patchy oil staining and fluorescence, scattered dark grey SHALE partings

1429.2-1429.4 SHALE, grey, soft

1429.4-1429.6 DOLOMITE, as above

1429.6-1429.8 SHALE, greyish green, waxy in part, soft, sharp contact with anhydrite below

MUSKEG @ 1429.8m

1429.8-1432 ANHYDRITE, sharp contact with dolomite and shale above, white to watery lustre, pearly to opaque, light brown in part, mottled, cryptocrystalline, dense, very firm with chalky texture on outside of core, massive, tight, no fluorescence, scattered grey to greenish grey soft SHALE partings, in part dolomitic

1432-1435 DOLOMITE 80%, off white to light brown, microcrystalline to fine crystalline, sucrosic in part, anhydritic in part, limy streaks, lumpy to blocky, tight with streaks of poor pinpoint and intercrystalline porosity, no show, ANHYDRITE 20%, pearly to light gray to tan, cryptocrystalline, tight

1435-1440 ANHYDRITE 60%, pearly to light gray to tan, cryptocrystalline, soft, tight, DOLOMITE 40%, off white to light brown, microcrystalline to fine crystalline, sucrosic in part, anhydritic in part, limy streaks, lumpy to blocky, tight with streaks of poor pinpoint and intercrystalline porosity, no show

1440-1450 ANHYDRITE 80%, pearly to opaque, tan to light brown, cryptocrystalline, soft, tight, DOLOMITE 20%, off white to light brown, microcrystalline to fine crystalline, sucrosic in part, anhydritic in part, flaky, lumpy to blocky, tight with scattered poor

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## Sample Descriptions

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intercrystalline porosity, no show

1450-1455 ANHYDRITE 50%, pearly to opaque, tan to light brown, cryptocrystalline, soft, tight, DOLOMITE 50%, off white to light brown, occasional dark brown, microcrystalline to fine crystalline, sucrosic in part, anhydritic in part, flaky, lumpy to blocky, poor to fair intercrystalline porosity, bright yellow fluorescence, watery greenish cut, gassy odor in sample

1455-1463 ANHYDRITE 90%, pearly to opaque, tan to light brown, cryptocrystalline, soft, tight, DOLOMITE 10%, off white to light brown, occasional dark brown, microcrystalline to fine crystalline, sucrosic in part, anhydritic in part, flaky, lumpy to blocky, poor to fair intercrystalline porosity, scattered bright yellow fluorescence, trace watery greenish cut

TOTAL DEPTH @ 1463.0m



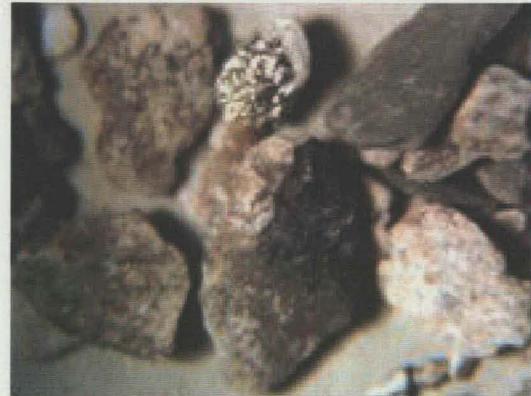
**1315m, Beaverhill Lake 10X**



**1315m, Beaverhill Lake 30X**



**1365m, Slave Point 10X**



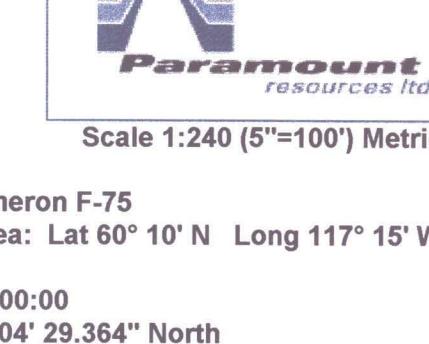
**1365m, Slave Point 30X**



**1410m, Watt Mountain 10X**



**1410m, Watt Mountain 30X**



Scale 1:240 (5"=100') Metric

Well Name: Para et al Cameron F-75  
Location: F-75 Grid Area: Lat 60° 10' N Long 117° 15' W  
Licence Number: 1971  
Spud Date: Jan 10, '03 @ 00:00  
Surface Coordinates: Latitude: 60° 04' 29.364" North  
Longitude: 117° 29' 11.066" West  
Bottom Hole Coordinates:

Ground Elevation (m): 774.35m K.B. Elevation (m): 778.83m  
Logged Interval (m): 1300m To: 1463m Total Depth (m): 1463m  
Formation: Primary = Sulphur Point DOL, Secondary = Slave Point  
Type of Drilling Fluid: Gelchem

Region: Camern Hills, NWT  
Drilling Completed: Jan 19, 03 @ 22:38

Printed by WellSight Log Viewer from WellSight Systems 1-800-447-1534 www.WellSight.com

#### OPERATOR

Company: Paramount Resources Ltd.  
Address: 4700 Bankers Hall West  
888 3rd Street S.W.  
Calgary, Alberta T2P 5C5

#### GEOLOGIST

Name: Brad Powell, B.Sc.  
Company: Running Horse Resources Inc.  
Address: Site: www.WellsiteGeologists.com  
Email: wellsitengeologists@telus.net  
Phone: 403-660-9883

#### Cores

Core #1 1413-1419m

Core #2 1419-1432m

#### SEE SEPERATE CORE LOGS

While coring Core #1, the core jammed off at 1419m. Had to run in and cut Core #2 to recover the full Slave Point dolomite.

#### Comments

This well was drilled by Presicion Drilling Rig #117.

A Continental gas detector was run.

Logging by Computalog.

Paramount AFE #02N31148

Core Log #1, 1413 to 1419m is attached to bottom of Striplog

Core Log #2, 1419 to 1432m is attached to bottom of Striplog

#### ROCK TYPES

Anhy	Bent	Clyst	Gyp	Igne	Mrst	Shgy
Brec	Congl	Cht	Lmst	Meta	Salt	Siltst
					Shale	Ss
					Shcol	Till

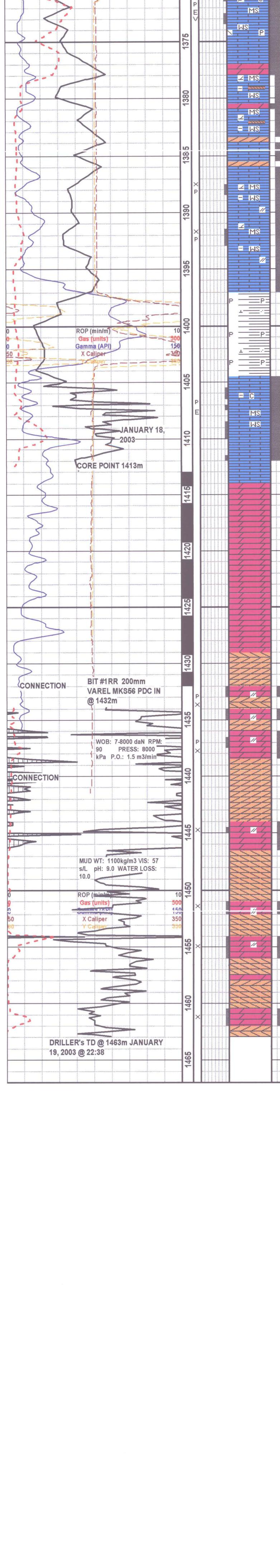
#### ACCESSORIES

MINERAL	Ferrpel	Silt	Coral	Strom	TEXTURE
Anhy	Ferr	Sil	Crin	Anhy	Boundst
Arggrn	Glau	Sulphur	Echin	Arg	Chalky
Arg	Gyp	Tuff	Foram	Bent	Cryxln
Bent	Hvymin		Fossil	Coal	Earthy
Bit	Kaol		Algae	Oolite	Finexln
Bit	Marl		Amph	Ostra	Grainst
Brecfrag	Minxl		Belm	Pelec	Gyp
Calc	Nodule		Bioclst	Pellet	Ls
Carb			Brach	Pisolite	Mrst
Chtdk			Bryozoa	Plant	Sltstrg
Chtit			Cephal		Ssstrg
Dol	Pyr				
Feldspar	Salt				
	Sandy				

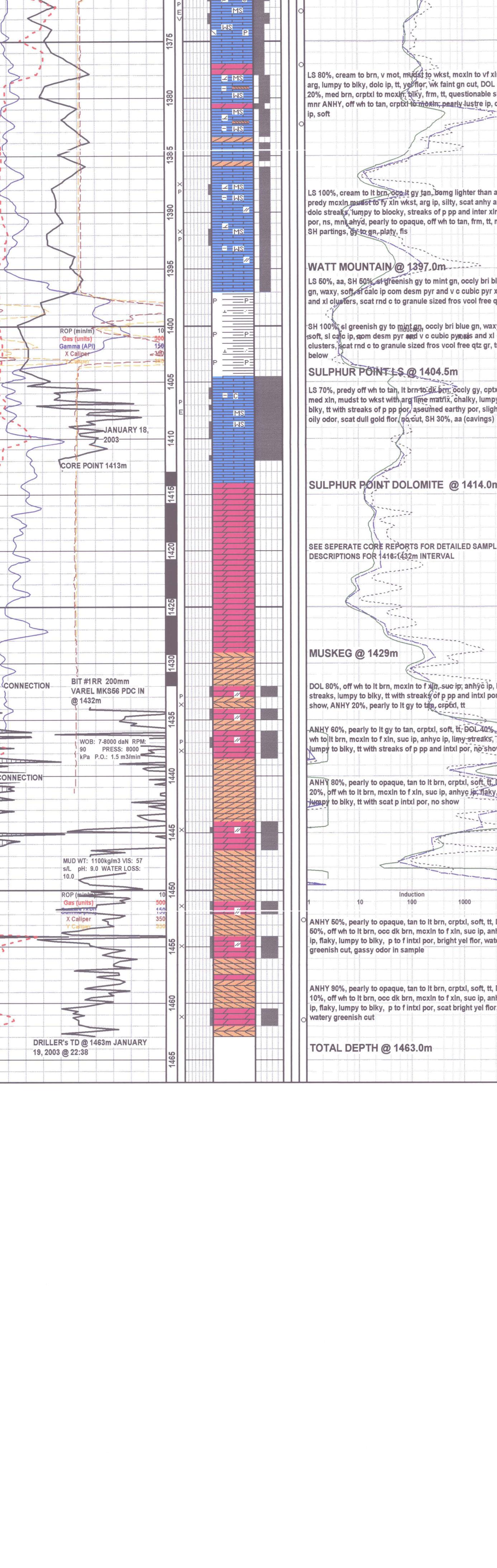
#### OTHER SYMBOLS

POROSITY TYPE	Organic	Moderate	Subang	Strom	EVENTS
Earthly	Pinpoint	Poor	Angular	Anhy	Rft
Fenest	Vuggy			Arg	Sidewall
Fracture				Bent	
Inter				Coal	
Moldic				Gyp	
				Ls	
				Mrst	
				Sltstrg	
				Ssstrg	

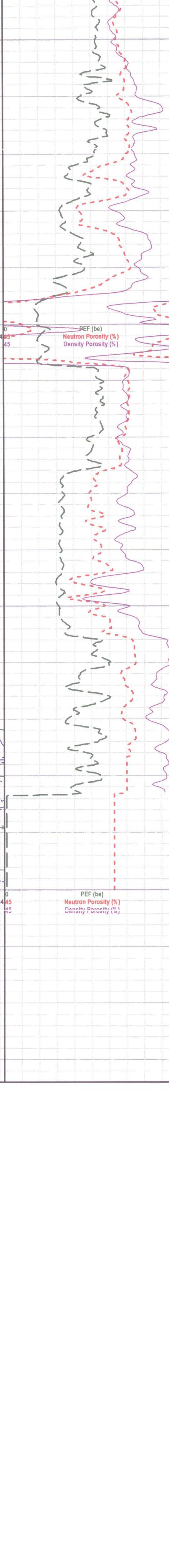
#### Curve Track 1



#### Geological Descriptions



#### Neutron Density



# Running Horse Resources Inc.

[www.wellsitegeologists.com](http://www.wellsitegeologists.com)

Para et al Cameron F-75  
F-75 Grid Area: Lat 60° 10' N Long 117° 15' W

00:00 04° 29' 364" North

**Bottom Hole  
Coordinates:**  
**Ground Elevation (m):** 774.35m      **K.B. Elevation (m):** 778.83m  
**Logged Interval (m):** 1419m To: 1432m      **Total Depth (m):** 1432m  
**Formation:** Sulphur Point Dolomite  
**Type of Drilling Fluid:** Gelchem

Company:  
Address:

**Address:**

**4700 Bankers Hall West  
888 3rd Street S.W.  
Calgary, Alberta, T2P 5**

systems Inc

systems inc.

1534 [www.wellsight.com](http://www.wellsight.com)

Volume 100 • 111 • 1001 www.wiley.com

Calgary, Alberta T2P 5C5

GEOLOGIST

Name: **Brad Powell, B Sc**

**Name:** Brad Powell, B.Sc.  
**Company:** Running Horse Resources  
**Address:** 204 N. 61, 15E

**Address:** 66A New  
Calgary

Calgary, Alberta T2C 3X9  
(403) 660-9883

## Comments

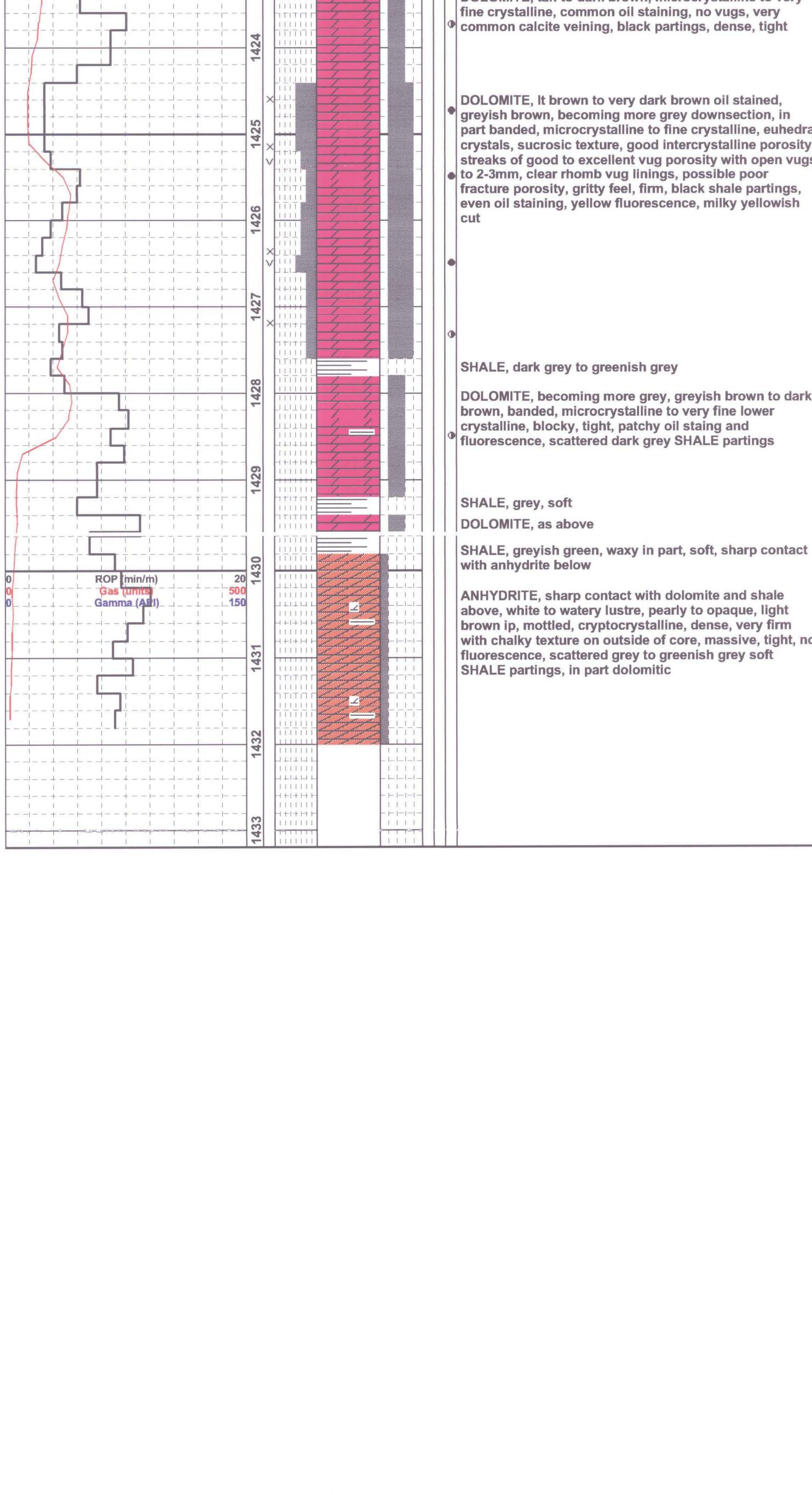
This well was drilled by Presicion Drilling Rig #1  
A Continental gas detector was run.  
Gamma data provided by Computalog.  
Paramount AFE #02N31148

Formation: Salina Fm. Dolomite  
Core Interval: From: 1419m Cut: 1  
To: 1432m Recovered: 1  
Bit type: Hughes Christensen BHC-406  
Size: 199 OD 101 ID  
Coring Time: 82min

## Grain

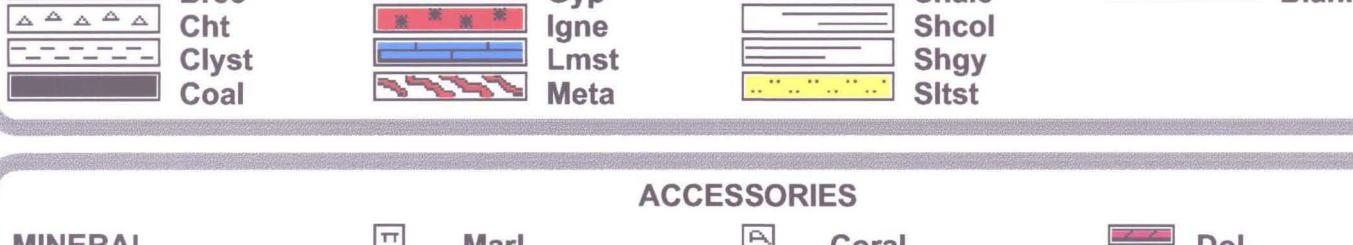
The figure displays a DST flow diagram on the left and a completion section log on the right. The flow diagram shows a wellbore section with various flow paths and valves. The completion section log on the right shows the following details:

- Completion Type:** Cased Hole
- Completion Depth:** 1419 ft
- Completion Casing:** 1420 ft
- Completion Tubing:** 1421 ft
- Completion Casing ID:** 102mm
- Completion Tubing OD:** 199mm
- Completion Casing Material:** Hughes BHC-406
- Completion Casing Rating:** 20 min/m
- Completion Tubing Rating:** 500 units
- Completion Casing Gamma:** 150 API
- Completion Tubing Gamma:** 20 API
- Completion Casing Casing:** 1422 ft
- Completion Tubing Casing:** 1423 ft
- Completion Casing Rating:** 20 min/m
- Completion Tubing Rating:** 500 units
- Completion Casing Gamma:** 150 API
- Completion Tubing Gamma:** 20 API

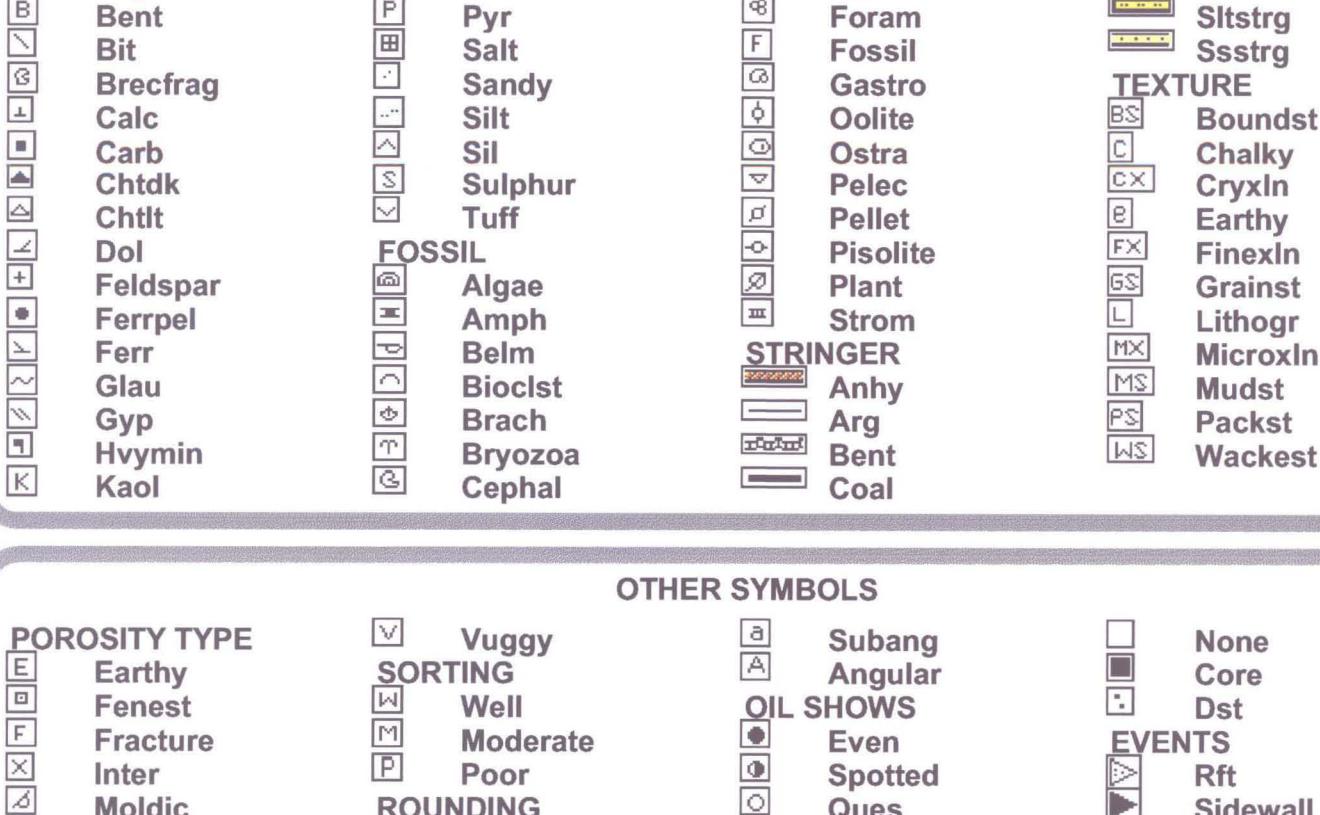


CORE

**Contractor:** Baker  
**Core #:** 1  
**Formation:** Sulphur Point Dolomite  
**Core Interval:** From: 1413m Cut: 6.0m  
To: 1419m Recovered: 6.0m  
**Bit type:** Hughes Christensen BHC-406  
**Size:** 199 OD, 101 ID  
**Coring Time:** 32min



8  
9  
10  
11



#### INTERVA

