



APPENDIX 4

Petrographic Table

(select to view petrographic table)

Exploration Assessment of Tight Gas Plays, Northeastern British Columbia
PETROGRAPHIC SUMMARY

Well	Depth (m)	Formation	TEXTURE					FRAMEWORK GRAINS											Matrix Clays	CEMENTS							Rock Type	Vis.Porosity(%)	Res.Quality	Comments	
			Grain Size Avg.	Grain Size Range	Sorting	Roundness	Compaction	Mono.Qtz	Poly.Qtz	Chert	Feldspar	SRF	MRF	Mica	Glaucinite	Phosphate	Detrital Carbonate	Heavy Minerals		Quartz	Kaolinite	Calcite	Dolomite	Fe-Dolomite	Chlorite	Pyrite					Bitumen
a-3-B / 93-P-1	938.7	Cardium	FU	VFU-ML	M	SA-SR	High	48	1	16	1	9	3	tr	tr	-	-	-	2	16	-	-	-	-	tr	-	3	LR	3.5	P	Poor visible porosity dominated by grain dissolution (chert, fspar, RF) and some modified primary intergr porosity; poorly interconnected pores; reserv quality reduced by high compaction and abundant qtz overgrowths.
a-85-A / 94-G-15	781.5	Sikanni	VFL	MSLT-FL	W	A-SA	Mod high	56	1	12	1	5	tr	-	tr	-	-	tr	22	1	-	-	-	-	-	1	-	LR	2	P	Poorly interconnected, small, grain-moldic pores (diss chert, fspar); trace modified primary intergr porosity; reserv quality reduced by fine gr size and clays.
b-24-A / 93-P-7	2054.3	Cadotte	Gran	ML-Gran	P	SA-R	Mod	3	tr	87	-	-	tr	tr	-	-	-	-	1	5	3	-	tr	-	tr	-	-	LR	15	G	Chert granule congl; good visible porosity consisting of mainly large modified primary intergr pores between chert clasts; pores commonly lined w drusy qtz.
c-14-F / 94-P-7	1850.5	Cadotte	MU	FU-CL	M	SA-R	High	32	3	40	-	9	1	-	-	-	-	-	tr	11	3	-	-	-	tr	tr	tr	LR	4	P	Poor visible porosity consisting of modified primary intergr plus some secondary grain diss (chert, RF); possible hairline fractures may provide some interconnectivity of pores.
c-14-F / 94-P-7	1853.8	Cadotte	Gran	FL-Peb	P	SA-R	High	9	1	81	-	tr	-	-	-	-	-	-	1	4	3	-	-	-	-	tr	-	LR	3	P	Poor visible porosity consisting of modified primary intergr plus trace chert grain dissolution pores; porosity occluded mainly be qtz and kaolinite cement.
b-2-H / 93-P-1	2199.4	Falher	Gran	MU-Peb	P	SA-R	Mod	4	2	73	-	tr	-	-	-	-	-	-	-	17	-	-	-	-	-	-	3	LR	9	G	Chert granule congl; fair visible porosity consisting of mostly modified primary intergr pores; large pores between chert clasts, partly plugged by bitumen.
b-28-G / 93-P-1	2333.0	Falher	CU	FU-VCU	P	SA-SR	High	3	2	80	-	2	tr	-	-	-	-	-	tr	11	1	-	-	tr	-	tr	tr	LR	6	M	Fair visible porosity consisting of modified primary intergr and trace chert grain dissolution; reserv quality reduced by compaction and abundant qtz overgrowths.
b-28-G / 93-P-1	2334.7	Falher	FU/Peb	VFU-Peb	P	SA-R	High	3	-	91	tr	tr	tr	-	-	-	-	-	tr	5	tr	-	-	-	tr	-	tr	LR	3	P	Chert pebble congl with sand matrix; poor visible porosity consisting of modified primary and some diss of grains (chert, RF, fspar); pores mainly in matrix sand.
b-28-G / 93-P-1	2343.5	Falher	FU	VFL-VCU	P	SA-SR	High	35	1	25	1	7	2	-	tr	-	4	-	tr	17	-	-	-	7	-	tr	-	LR	4	P	Small pores poorly interconnected; modified primary intergr and secondary grain diss pores (chert, RF, fspar); reserv quality reduced by fine grain size, high compaction, and qtz overgrowths.
d-73-D / 93-P-8	2382.0	Bluesky	FU	VFU-MU	M	SA-SR	High	28	1	42	3	3	tr	-	-	-	-	-	tr	24	1	-	-	-	tr	tr	tr	LR	1	P	Poor visible porosity; poorly interconnected modified primary intergr pores; reserv quality reduced by high compaction and abundant qtz overgrowths.
b-18-E / 93-P-8	2397.5	Bluesky	ML	VFU-CL	P	SA-SR	High	15	3	22	-	12	3	-	-	-	6	-	tr	-	-	-	-	38	-	tr	tr	LR	0	P	Tightly cemented with ferroan dolomite.
d-68-K / 93-P-1	2604.3	Cadomin	MU/Peb	FU-Peb	P	SA-R	Mod high	5	tr	86	-	tr	tr	tr	-	-	-	-	1	4	3	-	-	-	-	tr	-	LR	3.5	P	Chert pebble congl with sand matrix; poor visible porosity consisting of modified primary intergr and some secondary diss of chert clasts; main cements are quartz and kaolinite; pores commonly lined w drusy qtz.
a-23-H / 93-P-8	2231.5	Minnes (Niknsin)	MU	VFU-VCL	P	SA-R	High	30	1	40	-	8	-	-	-	-	-	tr	tr	16	-	-	-	2	-	-	2	LR	tr	P	Very poor visible porosity, poorly interconnected pores; rare chert grain diss; possible trace hairline fracture porosity.
a-23-H / 93-P-8	2236.8	Minnes (Niknsin)	MU	VFU-VCL	P	SA-R	High	30	1	33	-	13	tr	-	-	-	-	tr	3	14	-	-	-	4	-	-	1	LR	5	M	Fair visible porosity consisting of modified primary intergr and common grain dissolution (chert, RF); moderately interconnected small pores.
a-23-H / 93-P-8	2247.4	Minnes (Niknsin)	MU	FU-CU	M	SA-R	High	50	2	20	-	3	-	-	-	-	-	-	tr	24	-	-	-	-	-	-	tr	LR	6	M	Fair visible porosity consisting of modified primary intergr and some grain dissolution (chert, RF) plu possible hairline fracture porosity; moderate pore interconnectivity; abundant qtz overgrowths.
d-99-l / 93-P-8	2589.1	Halfway	FU	VFL-ML	M	SA-SR	Mod	70	1	3	tr	tr	-	-	-	-	tr	3	tr	13	-	7	-	2	-	tr	-	QA	12	G	Good visible porosity, somewhat patchy; pore types are modified primary intergr plus chert grain dissolution plus calcite cement dissolution.

Exploration Assessment of Tight Gas Plays, Northeastern British Columbia
PETROGRAPHIC SUMMARY

Well	Depth (m)	Formation	TEXTURE					FRAMEWORK GRAINS											CEMENTS							Rock Type	Vis.Porosity(%)	Res.Quality	Comments		
			Grain Size Avg.	Grain Size Range	Sorting	Roundness	Compaction	Mono.Qtz	Poly.Qtz	Chert	Feldspar	SRF	MRF	Mica	Glauconite	Phosphate	Detrital Carbonate	Heavy Minerals	Matrix Clays	Quartz	Kaolinite	Calcite	Dolomite	Fe-Dolomite	Chlorite					Pyrite	Bitumen
d-99-1 / 93-P-8	2598.0	Halfway	FU/MU	VFL-CL	P	SA-R	Mod	62	tr	tr	tr	-	-	-	-	tr	2	tr	-	11	-	24	tr	-	-	tr	-	QA	2	P	Poor visible porosity consisting of modified primary intergr and some secondary chert grain diss; possible trace calcite cement dissolution; reservoir quality reduced by abundant calcite cement.
d-55-A / 94-G-9	1360.1	Halfway	ML	VFU-CL	P	SA-R	Mod high	63	tr	18	tr	tr	-	-	-	tr	tr	tr	-	13	-	tr	3	-	-	tr	2	SL	13	G	Good visible porosity consisting of mostly secondary chert grain dissolution.
d-55-A / 94-G-9	1370.2	Halfway	ML	VFL-CL	P	SA-SR		7	-	-	-	-	-	-	-	1	-	-	-	tr	-	-	91	-	-	-	tr	dol	13	G	Sandy dolomite with original depositional texture of shelly packstone-grainstone (coquina); qtz + phosph detrital grains; trace qtz and chert cement; good moldic/vuggy porosity.