

## G E O L O G E D I T L I S T I N G

SYSTEMS ENGINEERING BY  
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.

JASUN PR-20-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

DRILLHOLE/TRVERSE : 81-DH076  
TOTAL DEPTH/LENGTH : 169.25  
CORE/HOLE DIAMETER : HQCOLLAR ELEVATION: 1296.37  
NORTHING (= TE S): 7002568.00  
EASTING (= TE W): 436555.31AZIMUTH( DEG ) : 5.00  
VERTICAL ANGLE : -59.00  
CO-ORD SYSTEM : UTMGEOLOGGED BY : JER + AMC  
DATE (YY/MM/DD): 810817  
PROJECT NUMBER : J-MAIN

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH ( DEG )	VERT. ANGLE ( DEG )
1	46.02	7.00	-57.75
2	83.52	10.00	-56.00
3	124.05	13.00	-55.25
4	167.03	16.00	-55.00

F - 1 0 1 E R V A L -		CORE T- %	TYPI- GAL	THX- GRAIN	PGT	STRUCTUR-1	ALTERATION MINS	ORE-TYPE MINS	SUMMARY
K L (UNITS = . DEC.PLACE) RECDV- M M ROCK FLYING MIN TURES CHARACS	F A (METRIC FT=FOOTRIC) ERY	0 T	TM TM MAT TX TX F C % M	ARG	/RI	T ID STK DIP	A A A A A MIN A A A MIN	- - - -	- - - -
Y G F R D N - 1 0 - 1 N T ( . )	D X TYPE	1 2 Q01	1 2 F F C A			1 AZM RT QZ FL CY CA BA XX PY CP GL YY	A 1 A 2		
K F	ROCK F R	RT	TM Q02 TX TX S C O O	CHT		T ID STK DIP MG MU CL SD QS HA PR MT SL HA			
E L	QUAL AGE ER- O LC- 3	3 4 O	/			2 AZM RT H H H H H H H H	1 1		
Y G	DESIG	VTR COL	R C			STRUCTUR-2	A A A A A A A A	2 2	

R SVY 0.00 0.00 ALL SURVEY ARE SPERRY SUN SINGLE SHOT.

/ OVR 0.00 5.77 3.77 OVER P

/ NET 5.77 7.88 4.11 CROP PY \*C1 B\* F\* MP4 P D\*

L 5.77 7.88 OPEN STRUCTURE INVOLVES CHERT AND ARGILLITE SANDSTONE MATRIX.

/ NET 7.48 7.88 0.40 X SAND PY \*C+ 4 5 3 7 R LI D\*

L 7.48 7.88 0.40 SA S09 C.

/ NET 7.86 15.86 7.98 BRBN SI2 NO9 P LI D\*

L 7.86 15.86 7.98 1A CL 62 C.

/ 15.86 19.64 3.78 ARSI SI1 SS P 2 BD 62 L\*

L 15.86 19.64 3.78 1A CL 62 L\*

R 15.86 19.64 PYRITE WITHIN SILT LAMINATIONS. BEDDING PLANE CLEAVAGE.

/ 19.64 47.79 28.06 BRBT \*C= K\* NS8 P LI D(

L 19.64 47.79 28.06 F\* B\* LO2 C. C.

/ 30.76 32.16 1.40 X BRBN SF NP9 R D.

L 30.76 32.16 1.40 1A LN1 C.

/ SHR 30.91 31.00 0.09 X BRXX LN3 R #7 B-

L 30.91 31.00 0.09 6A

[illegible]

/	32.16	32.40	0.24	X ARSD	SN5 SS	0 3 2 4	R	<=	C.	B*
L				3A						
/	35.30	35.40	2.10	X BRHT	*C=	R*	NS8	R	V*	C. LI DC
L						+ =				
/	35.40	35.66	0.26	X SAND		3 4 3 6	R			
L										
/	35.66	36.10	0.44	X BRHT	*C= CU R*		NP4	R		LI DC
L				2A			6			
/	36.10	37.07	0.97	X CGCP	*C1 H* F*		MP2	R	V)	
L				6A			L08			
/	37.25	38.50	1.25	X SAND	G; SS	3 4 6	R	D	V+	D*
L				6A						
/	47.70	53.96	6.26	BRHT	*C) R* F*		OR9	P		D=
L				2A	R*	. *	MO1			
/	53.96	56.85	2.89	BRHT SF	*C) FU F*		NP8	P		
L					R*		L02			
/	53.96	56.85	2.89	S SAND		3 4 4 6	R			D=
L				4A						
/	56.85	60.66	3.81	BRHT SF	*C1 H* F*		NS5	P		
L					R*		MO5			
/	60.66	64.95	4.29	BRHT SF	*C= H* F*		NQ6	P		
L					R*		LP4			
/ FLT	64.12	64.15	0.03	X FAUL	GG9		R			
L										
/	64.15	64.95	0.80	X SAND	G; CU	3 4 8	R	D		D*
L						3				
R	64.15	64.95		LARGER CLASTS ARE ARGILLITE, BUT INTERVAL DOMINATED BY CHERT						
/	64.95	69.93	5.03	BRHT			P			
L										
/ FAL	67.95	68.03	0.08	X FAUL	GG9		R			
L										
/	69.96	71.96	1.98	ARST	SI1 SS		P 2 BD	<=	<.	
L				1A						
R	69.96	71.96		TRACES OF CHERT CLASTS MAY BE INJECTIONS OF BRHT.						
/	70.17	70.27	0.10	X SAND	SNX G;	3 4 2 4	R	D60 <*		L+
L				4A		8				

[illegible]

/	FAL	71.48	71.96	0.48	X FAUL CR	GG7		R					
L													
/		71.96	87.90	15.94	PRHT CR	*C+ H* R*	NS7	P	<=	<=	D*		
L						F* B* )	MO3			<. <=			
/	FLT	75.00	75.19	0.19	X FAUL CR	GG4		R					
L													
/	FAL	75.80	76.28	0.48	X FAUL	GG7		R					
L					1A								
/	SHR	77.90	78.10	0.20	X BRHT CR	*C+ H* R*	NS7	R	<=	<=	D*		
L						GG1 F* R* )	MO3			<. <=			
/		82.10	83.70	1.60	X CGCP SF	*C) CU H*	MO6	R	>*		D=		
L					3A		LN4						
/		83.70	84.16	0.46	Y SAND CB	SS	3 4 2 6	R	<=				
I					3A		7						
R		85.70	86.16		CALCITE CEMENT.								
/		87.50	91.00	3.50	SAND	SS	3 4 4	P 2 BD	V+		L=		
L					3A		b			V*			
/		87.90	91.00	3.10	1 ARGIL CR	+ LM+		R			D=		
L													
R		87.90	91.00		BITUMENS WITHIN QUARTZ VEINS. PYRITE ALSO IN MASSIVE PATCHES.								
R		87.90	91.00		CHERT CLAST FORM A SMALL PORTION OF THE INTERVAL. SOME APPARENT								
R		87.90	91.00		ANGULAR CLASTS MAY BE BROKEN QUARTZ VEINS. DISTRUCTION OF VEINS								
R		87.90	91.00		DURING SOFT SEDIMENT DEFORMATION INDICATES THAT THE VEINS WERE								
R		87.90	91.00		PRESENT SHORTLY AFTER DEPOSITION. POOR ROCK QUALITY PROHIBITS								
R		87.90	91.00		DISTINGUISHING STRATIGRAPHIC DIRECTION.								
/		91.00	93.22	2.22	BRHT		NQ5	P	V)		C.	D*	
L					1A		O NN4						
/		91.00	93.22	2.22	3 ARGIL	SS		R	V*		C.	D*	
L					1A								
/		91.00	93.22	2.22	3 BRPM			R	<*		C.	D*	
L					1A		LN1						
R		91.00	93.22		THE ROCK IN THIS INTERVAL IS TOO HIGHLY FRACTURED TO ALLOW AN								
R		91.00	93.22		ACCURATE MEASUREMENT OF ARGILLITTE CLAST SIZE.								
R		91.00	93.22		SOFT SEDIMENT DEFORMATION MAKES LITHOLOGICAL IDENTIFICATION								
R		91.00	93.22		DIFFICULT BY SHEARING AND STRETCHING THE ARGILLACEOUS COMPONENTS								
/	SHR	93.22	97.67	4.45	ARSL	SI2 SS	1 2 2 3	P 2 BD	<)		C*	7*	
L							7						
/	FAL	93.22	93.72	0.50	X ARSL	SI2 SS	1 2 2 3	R 2 BD	<)		C*	7*	
L						GG2	7						

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/ LSY 125.40 125.58 0.18 X LMSX SX BA GG1 SS // R 1 BD 55 L2 M3 L)
L

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R 156.58 137.33 THE FIRST HALF OF THIS INTERVAL IS DOMINATED BY A PIECE OF

[illegible][illegible]

K	F	F	R	D	T	I	N	T	RECDV	RD	%	ROCK	TM	TM	TM1	TX	TX	F	C	%	M	ARG	RI	1	ID	AZM	DIP	GZ	FL	CY	CA	BA	XX	PY	CP	GL	YY	A	1	A	2		
E	-L-	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Y	G									R	C	D	AGE	EV	RM	LC	TM	TM2	TX	TX	S	C	O	O	CHI	2	ID	AZM	DIP	MG	MU	CL	SD	QS	HA	PR	MT	SL	HA				

R 146.39 147.50 LAST HALF OF INTERVAL IS ALMOST ENTIRELY MASSIVE, VUGGY PYRITE  
 R 146.39 147.50 LAMINATIONS ARE NOT EASILY DISTINGUISHED IN THE PYRITE, BUT ARE  
 R 146.39 147.50 NOTICEABLE CONVOLUTE IN THE SULPHIDE-SULPHATE.

/ LSX 147.50 148.44 0.94 LMSX SX BA CH= // SS P 1 BD 65 L6 L1 L1

L

/ LSX 148.44 149.42 0.98 LMSX SX BA CHI // SS P 1 BD 65 L4 L1 L1

L

/ LSX 148.44 149.42 0.98 2 ARGL SF R <\*

L

R 148.44 149.42 THE CHERTY ARGILLITE SEEMS CONFORMABLE WITH BEDDING IMMEDIATELY  
 R 148.44 149.42 ABOVE, BUT BEDDING IS DISTURBED BELOW WITH PLASTIC DEFORMATION  
 R 148.44 149.42 OF BARITE. DISTINCT WHITE SPHALERITE POOR CHERTY BARITE PATCHES  
 R 148.44 149.42 ABRUPTLY CHANGE TO CHERT POOR, SPHALERITE RICH, YELLOW BARITE.  
 R 148.44 149.42 LAMINATIONS ARE CONTINUOUS BETWEEN THE SEPARATE AREAS.

/ LSX 149.42 150.41 0.99 LMSX SX BA CH2 // SS P 1 BD 62 L3 L1 L1

L

/ LSX 150.41 151.49 1.08 LMSX SX BA CH2 // SS P 1 BD 62 L3 L1 L1

L

/ 150.41 151.49 1.08 1 ARGL SF R <\*

L

R 150.41 151.49 THE CHERTY ARGILLITE MAY BE A FRAGMENT 30CM LONG. IT IS HIGHLY  
 R 150.41 151.49 FRACTURED WITH PYRITE VEINING.

/ LSX 151.49 152.60 1.31 LMSX SX BA CH2 // SS P 1 BD 55 L2 L1 L2

L

/ 151.49 152.60 1.31 1 ARSI SF SI1 SS 0 1 1 R 2 BD 55 >1 >3

L

/ LSX 151.62 151.73 0.11 X LMSX SX BA CHI // SS R 1 BD 65 L1 L8 L=

L

R 151.62 151.73 THIS IS THE FINAL INTERVAL OF THE ORE ZONE THE LAMINATIONS ARE  
 R 151.62 151.73 VERY REGULAR, AND SHOW LITTLE TECTONIC OR SOFT SEDIMENT  
 R 151.62 151.73 DEFORMATION. THE ARGILLITE IS AT THE BOTTOM OF THE INTERVAL.  
 R 151.62 151.73 MINOR INTERBEDDING OCCURS WITH 3.5CM OF ARSI SEPARATED FROM THE

R 151.62 151.73 BULK OF THE ARSI BY 8.5CM OF LMSX. THE PYRITE MACROVEINING CUTS  
 R 151.62 151.73 BOTH THE SILT AND THE SULPHIDE LAMINATIONS. ASSOCIATED WITH THE  
 R 151.62 151.73 PYRITE IS BARITE WHICH FORMS THE CENTRAL PART OF SOME OF THE  
 R 151.62 151.73 VEINS.

R 152.80 153.22 A PYRITE MACROVEIN WITH BARITE OCCURS AT THE CONTACT BETWEEN THE  
 R 152.80 153.22 BRHT AND ARSI. IT CONTAINS FRAGMENTS OF ARGL BRECCIA, AND

R 152.80 153.22 MICROVEINS EXTEND INTO THE ARSI, BUT NOT INTO THE BRHT.

K LM1 152.80 152.80 0.00

/ CON 152.80 153.23 1.03 BRHT \*C) ST R\* LP3 P <) B\*

L

[illegible]

Z	152.80	153.22	0.42	X ARSI		R	2 BD	55	<*	7)
L				1A						
R	152.80	153.83		SEEMS CONFORMABLE WITH ARSI IMMEDIATELY UPHOLE.						
Z	SHR	153.83	154.89	1.06	BRHT	*C1 ST B*	LP3	P	>+	8+
L										
R	153.83	154.89		LARGE QUARTZ VEIN WITH A MULTITUDE OF PYRITE VEINS MAY BE						
R	153.83	154.89		FILLING OF A SHEAR.						
Z	CON	154.75	154.89	0.14	X CGCP	*C1 F* B*	MO1	R	CN	<- 7)
L				3A			MO9			<?
R	154.75	154.89		YELLOW STAINING OF KARITE POSSIBLY SPHALERITE.						
Z		154.89	155.89	1.00	CGCP	*C1 F* B*	MO1	P	<- 7)	<?
L				3A			MO9			
R	154.89	155.89		RECURRENT OF YELLOW STAINED KARITE.						
Z		155.89	156.89	1.00	CGCP	*C1 F* B*	MO2	P	6)	6+
L							8			00
Z		156.89	158.21	1.32	CGCP	*C1 F* B*	MO2	P	6)	6+
L							P8			00
Z		158.21	162.80	4.59	CGCP	*C1 F* B*	MP1	P	<- 7)	
L							P			
Z	CON	162.80	164.15	1.35	SAND	G: DX 3 4 3 6		P	D	<. 7)
L						7				
R	162.80	164.15		CONTACT WITH CGCP IS GRADATIONAL.						
Z		163.50	164.15	0.65	X BRHT	*C1 B* F*	MP4	R	<- 6)	
L						R*	KN6			
R	163.50	164.15		GRADATIONAL CONTACT BETWEEN THE SAND AND BRHT.						
Z		164.15	165.30	1.15	ARSI SF	SF= SS // 0 1 2		P	2 BD	60 <- 8*
L				1A						
R	164.15	165.30		MAY BE A LARGE FRAGMENT, THOUGH CONTACT CONFORMS TO BEDDING.						
Z		164.86	164.80	0.14	X BRHT	*C+ B* F*	MP4	R		D)
L				2A		H*	KM6			
Z		165.25	165.30	0.05	X BRHT	*C. R* F*	MO3	R		83
L				2A			LN7			
R	165.25	165.30		SEEMS LIKE INJECTION ALONG CONTACT.						
Z	CON	165.30	168.25	2.95	ARGL CR SF	SF= SS // 0 1 2		P	2 BD	59 <*
L				R	ST= FR					B. L)
Z		166.58	167.18	0.60	X ARGL	00 00 600 SS // 0 1 2		R	2 BD	59 <*
L				1A	SI1 00					B. L)



Z	167.46	167.64	0.18	X ARGL CH SF SF= SS // 0 1 2	R 2 BD	59 <1	B.	L+
L				N SI= FR				
R	167.46	167.64		STOCKWORK-LIKE QUARTZ VEINING.				