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## CLINICAL REPORT

Comments:

Fasting: NOT PROVIDED

## \*\*\*\*\*OUT OF RANGE SUMMARY\*\*\*\*\*

Test	Result	Abnormal	Reference	Units	Previous Result	Date
% FREE PSA		<b>16 L</b>	25% - 99%	%	16	07/10/18

Interpret only if Total PSA is between 4.0 - 10.0 ng/mL.  
Clinical correlations also required.  
fPSA% <10% = CANCER RISK >49%  
fPSA% >25% = CANCER RISK <10%

## \*\*\*\* HEMATOLOGY \*\*\*\*

## CBC

TestResult	Abnormal	Reference	Units	Previous Result	Date
WBC	6.4	4.2 - 11.8	10 <sup>3</sup> /uL	6.2	07/10/18
RBC	4.60	4.4 - 5.8	10 <sup>6</sup> /uL	4.97	07/10/18
HEMOGLOBIN	14.5	13.1 - 17.1	g/dL	15.4	07/10/18
HEMATOCRIT	44	40 - 50.4	%	48	07/10/18
MCV	95	80.8 - 97.4	fL	97	07/10/18
MCH	31.4	26.6 - 33.0	pg	30.9	07/10/18
MCHC	33.1	32 - 34.9	g/dL	32.0	07/10/18
RDW	13.7	11.8 - 15.5	%	14.1	07/10/18
PLATELET	223	147 - 365	10 <sup>3</sup> /uL	256	07/10/18
MPV	9.48	6.00 - 12.00	fL	9.39	07/10/18

## AUTOMATED DIFFERENTIAL

TestResult	Abnormal	Reference	Units	Previous Result	Date
SEGMENTED %	60.9	43.7 - 73.5	%	67.5	07/10/18
SEGMENTED #	3.9	1.9 - 7.5	10 <sup>3</sup> /uL	4.2	07/10/18
LYMPHOCYTES %	32.12	17.9 - 45.1	%	27.97	07/10/18
LYMPHOCYTES #	2.1	1 - 4	10 <sup>3</sup> /uL	1.7	07/10/18
MONOCYTES %	5.7	3.8 - 10	%	3.8	07/10/18
MONOCYTES #	0.4	0.2 - 0.9	10 <sup>3</sup> /uL	0.2	07/10/18
EOSINOPHILS %	0.94	0.0 - 6.1	%	0.31	07/10/18
EOSINOPHILS #	0.06	0.0 - 0.5	10 <sup>3</sup> /uL	0.02	07/10/18
BASOPHILS %	0.36	0.0 - 0.9	%	0.46	07/10/18
BASOPHILS #	0.02	0.0 - 0.1	10 <sup>3</sup> /uL	0.03	07/10/18

## \*\*\*\*CHEMISTRY\*\*\*\*

## COMPREHENSIVE METABOLIC

Test	Result	Abnormal	Reference	Units	Previous Result	Date
SODIUM	142		136 - 145	mmol/L	139	07/10/18
POTASSIUM	4.5		3.5 - 5.1	mmol/L	3.7	07/10/18
CHLORIDE	105		98 - 107	mmol/L	99	07/10/18
CARBON DIOXIDE	26.0		17 - 32	mEq/L	24.0	07/10/18

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## CLINICAL REPORT

Comments:

Fasting: NOT PROVIDED

## \*\*\*\*CHEMISTRY\*\*\*\* (Continued)

Test	Result	Abnormal	Reference	Units	Previous Result	Date
GLUCOSE	83		70 - 99	mg/dL	79	07/10/18
BUN	20		7 - 25	mg/dL	16	07/10/18
CREATININE SERUM	0.89		0.7 - 1.3	mg/dL	0.99	07/10/18
BUN/CREATININE RATIO	22		8 - 28	Ratio	16	07/10/18
BILIRUBIN,Total	0.3		0.2 - 1.0	mg/dL	0.7	07/10/18
CALCIUM	9.0		8.6 - 10.5	mg/dL	9.5	07/10/18
PROTEINTOTAL	7.2		6.6 - 8.2	g/dL	7.9	07/10/18
ALBUMIN	4.5		3.5 - 5.7	g/dL	4.8	07/10/18
ALK.PHOSPHATASE	55		34 - 104	U/L	65	07/10/18
ALT (SGPT)	35		7 - 52	U/L	27	07/10/18
AST (SGOT)	28		11 - 39	U/L	31	07/10/18
GLOBULIN	2.7		1.8 - 4.0	g/dL	3.1	07/10/18
A/G RATIO	1.7		0.8 - 2.7	Ratio	1.5	07/10/18
GLOMERULARFILT. RATE	99		>60	mL/min	88	07/10/18*
If African-American result is: >60						
For African-American patients, the GFR should be adjusted.						
Please multiply the reported value by 1.21						

## \*\*\*\*THYROID\*\*\*\*

Test	Result	Abnormal	Reference	Units	Previous Result	Date
FREE T4	0.82		0.61 - 1.12	ng/dL		

Patients with high serum biotin levels will have falsely elevated results.

## \*\*\*\*HORMONES\*\*\*\*

Test	Result	Abnormal	Reference	Units	Previous Result	Date
DHEA-SULFATE	211.0		34.5 - 568.9	ug/dL	216.7	07/10/18
ESTRADIOL	26.9		39.8	pg/mL	22.6	07/23/18
		REFERENCE RANGE: FEMALES: MENSTRUALATING FEMALE (by day in cycle relative to LH peak) FOLLICULAR PHASE 19.5 - 144.2 MIDCYCLE 63.9 - 356.7 LUTEAL 55.8 - 214.2 POSTMENOPAUSAL 0.00 - 32.2 (untreated) MALES: 0.00 - 39.8				
PROGESTERONE	<0.20			ng/mL	0.31	07/10/18
	Reference Range: Males 0.27 - 0.90 Normal Females					

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## CLINICAL REPORT

Comments:

Fasting: NOT PROVIDED

## \*\*\*\*HORMONES\*\*\*\* (Continued)

Test	Result	Abnormal	Reference	Units	Previous Result	Date
follicular phase	0.33 - 1.20					
luteal phase	0.72 - 17.80					
mid luteal phase	6.00 - 24.00					
Postmenopausal phase	0 - 1.00					
Pregnant Females						
first trimester	9.3 - 33.2					
second trimester	29.5 - 50.0					
third trimester	83.1 - 160.0					
TESTOSTERONETOTAL	238.02		198 - 679	ng/dL	408.97	07/10/18
NO RANGES ESTABLISHED	FOR MALES BELOW 18 AND OVER 66 YEARS		OLD			
NO RANGES ESTABLISHED	FOR FEMALES BELOW 21 AND OVER 73 YEARS		OLD			
PLEASE NOTE: THE UNITS FOR TOTAL TESTOSTERONE WAS CHANGED TO ng/dL						
TESTOFREECALCULATED	63.00		%		88.00	07/10/18
REFERENCE RANGE:						
Males 20-50 years	24.3-110.2 %					
Females 20-46 years	0.65-10.93 %					
Post-menopausal females 47-91 years	0.23-6.80 %					
FAI (Free Androgen Index(%))=FTI (Free Testosterone Index calculated)						
NO RANGES ESTABLISHED	FOR MALES BELOW 20 AND OVER 50 YEARS		OLD.			
NO RANGES ESTABLISHED	FOR FEMALES BELOW 20 AND OVER 46 YEARS					
OLD.	13.2		13.2 - 89.6	nmol/L	16.1	07/10/18
SEX HORMONE BOUND ESTRADIOL						
REFERENCE RANGE :						
Males 20-50 years	13.3-89.5 nmol/L					
Females 20-46 years	18.2-135.5 nmol/L					
Post-menopausal females 47-91 years	16.8-125.2 nmol/L					
NO RANGES ESTABLISHED	FOR MALES BELOW 20 AND OVER 50 YEARS		OLD.			
NO RANGES ESTABLISHED	FOR FEMALES BELOW 20 AND OVER 91 YEARS					
OLD.						

## \*\*\*\*HORMONES\*\*\*\*

Test	Result	Abnormal	Reference	Units	Previous Result	Date
PREGNENOLONE	18.3		13 - 208	ng/dL	56.6	07/10/18
This test was developed and its characteristics determined by Accu Reference Medical Lab. This test has not been cleared by the FDA. It is used for clinical purposes, it is not meant to be used as the only diagnostic method.						

## PROSTATE HEALTH

Test	Result	Abnormal	Reference	Units	Previous Result	Date
PSA	1.73		0.0 - 4.0	ng/mL	2.50	07/10/18

PSA Hybritech better defines the 4.0 - 10.0 ng/mL gray zone effective  
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## CLINICAL REPORT

Comments:

Fasting: NOT PROVIDED

## PROSTATE HEALTH (Continued)

Test	Result	Abnormal	Reference	Units	Previous Result	Date
	04/06/2016.					
	Methodology: Paramagnetic Particle Chemiluminescent Immunoassay- Beckman Diagnostics. Values obtained with different PSAassay methods cannot be used interchangeably. Do not interpret serum PSAas absolute evidence of the presence of malignant disease. PSAlevels should be used concurrently with other diagnostic and clinical patient information.					
PSA FREE	0.280	0.00 - 2.30	ng/mL	0.400		07/10/18
	FREE PSA ASSAY IS ONLY VALID WHEN THE TOTAL PSA RANGE IS BETWEEN 4-10ng/mL. FREE PSA RESULTS SHOULD BE USED IN CONJUNCTION WITH OTHER DIAGNOSTIC PROCEDURES AVAILABLE FROM THE CLINICAL EVALUATION.					
	Methodology: Paramagnetic Particle Chemiluminescent Immunoassay? Beckman Diagnostics. Values obtained with different Free PSAassay methods cannot be used interchangeably. Do not interpret serum Free PSAas absolute evidence of the presence of malignant disease. Free PSAlevels should be used concurrently with other diagnostic and clinical patient information.					
% FREE PSA	16 L	25% - 99%	%	16		07/10/18
	Interpret only if Total PSA is between 4.0 - 10.0 ng/mL.					
	Clinical correlations also required.					
	fPSA% <10% = CANCER RISK >49%					
	fPSA% >25% = CANCER RISK <10%					
p2PSA	7.67		pg/mL	9.77		07/10/18
PHI	36.03			38.62		07/10/18
	Probability of Prostate Cancer on Biopsy for Beckman Coulter.					
	PHI in Patients with PSA between 4 and 10ng/mL with normal DRE.					
	Beckman Coulter phi Range Probability of Cancer 95% Confidence Interval (Hybritech Calibration)					
	0 - 26.9	9.8%		5.2% - 15.4%		
	27.0 - 35.9	16.8%		11.3% - 22.2%		
	36.0 - 54.9	33.3%		26.8% - 39.9%		
	55.0+	50.1%		39.8% - 61.0%		

## \*\*\*\*VITAMINS\*\*\*\*

Test	Result	Abnormal	Reference	Units	Previous Result	Date
VITAMIN B12	644		180 - 914 pg/mL			
	INDETERMINATE		145 - 180 pg/mL			
	DEFICIENT		<= 145 pg/ml			
	THIS ASSAY IS NOT VALIDATED FOR TESTING MYELOPROLIFERATIVE SYNDROME SPECIMENS.		NEONATAL OR			
FOLATE	>23.90		5.9 - 24.8 ng/mL			

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## CLINICAL REPORT

Comments:

Fasting: NOT PROVIDED

## \*\*\*\*METALS &amp; MINERALS\*\*\*\*

Test	Result	Abnormal	Reference	Units	Previous Result	Date
COPPER	82		70 - 140	ug/dL		reported: 10/26/18 02:14 *1

**COPPER**  
Copper, Serum/Plasma      82      70 - 140      ug/dL      \*1  
 INTERPRETIVE INFORMATION: Copper, Serum or Plasma  
 Serum copper may be elevated with infection, inflammation, stress, and copper supplementation. In females, elevated copper may also be caused by oral contraceptives and pregnancy (concentrations may be elevated up to 3 times normal during the third trimester). Serum copper may be reduced by use of corticosteroids and zinc and by malnutrition or malabsorption.  
 See Compliance Statement B at [www.aruplab.com/cs](http://www.aruplab.com/cs)  
 Performed by ARUP Laboratories,  
 500 Chipeta Way, SLC, UT 84108 800-522-2787  
[www.aruplab.com](http://www.aruplab.com), Julio Delgado, MD, Lab. Director

Test	Result	Abnormal	Reference	Units	Previous Result	Date
Magnesium, RBC	6.0		4.2 - 6.8	mg/dL		reported: 10/26/18 08:23 *2

----- END OF REPORT -----  
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 \*1) Unless otherwise noted, Tests Performed at :  
 ARUP Laboratories, UT, 84 [www.aruplab.com](http://www.aruplab.com)  
 Director : Julio Delgado, MD  
 \*2) Unless otherwise noted, Tests Performed at :  
 LabCorp Burlington, Burlington, NC 272153361  
 Director : William F Hancock, MD 8007624344  
 \*THE FOLLOWING PREVIOUS TEST RESULTS WERE ACCOMPANIED BY FREE TEXT AND/OR CANNED  
 COMMENTS: : 88 (07/10/18)  
 GLOMERULAR FILTRATION RATE : American result is: >60